"LESSONS FOR ROWERS"

from the Dove Pier Incident on 7th October, 2006

A.S.H. PRINCE MICHAEL OF KENT

Photo: Royal National Lifeboat Institution

A report to the Thames Regional Rowing Council of the Amateur Rowing Association by:

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WE ARE VERY GRATEFUL INDEED TO ALL OF THOSE WHO HAVE HELPED US WITH THE REVIEW AND OUR REPORT IN THOSE WAYS.

However, the opinions, errors or omissions set out below remain our responsibility.

The TRRC Dove pier review team

This PDF version was kindly prepared for us by Tony Reynolds and Marjorie Israel.

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"LESSONS FOR ROWERS"

A report to the Thames Regional Rowing Council

Section 1 "... a tragedy was fortuitously averted."

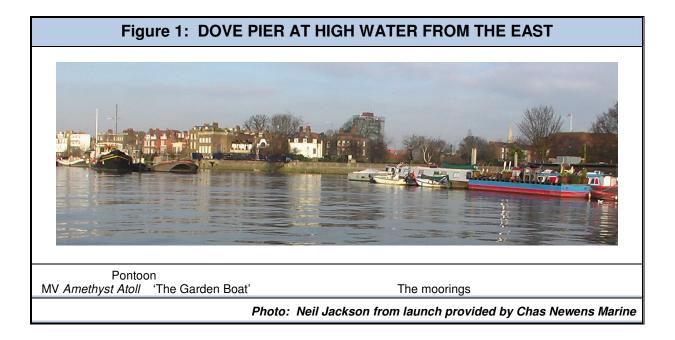
Bruce Richardson PLA and Martin Humphrys TRRC; 2007.

On October 7th 2006, at Dove pier, Hammersmith, ... a tragedy was fortuitously averted."

Bruce Richardson PLA Martin Humphrys TRRC,

(a) The wrecking

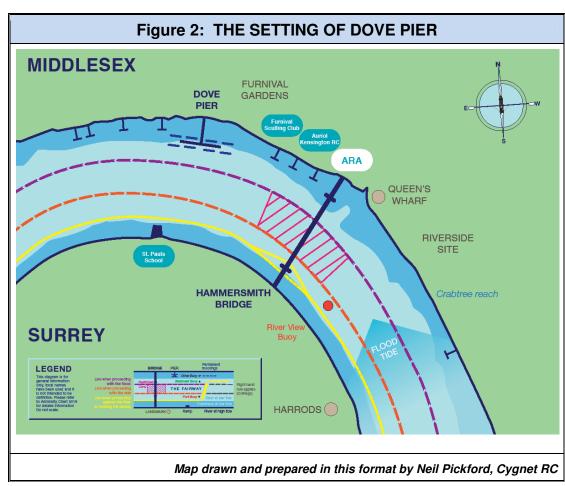
1.1 On Saturday, 7th October, 2006 a major rowing tragedy was avoided by the slimmest of margins. At about Noon that day, the Thames Rowing Club (TRC) racing boat, 'HRH Prince Michael of Kent', crewed by a novice women's eight (NW8+), and its accompanying out-board coaching launch ("tin-fish") were wrecked on Dove pier Hammersmith, west London. The wreck site was at the east, down-river end of Dove pier where the motor vessel (MV) Amethyst Atoll is moored to the end of the outer, southern face of the pier pontoon which projects out to the fairway (the deeper, central, fast-flowing part of the river). An unnamed lighter – "the garden boat" – is moored to the inner face of the pontoon - Figure 1.



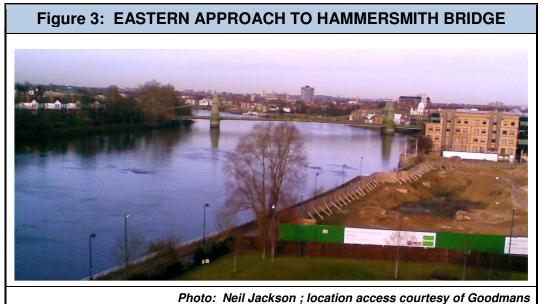
1. 2 Dove pier is located on the Middlesex side of the traditional rowing reaches of the tidal

Thames
("the
Tideway")
some
500m upriver from
Hammersmith
bridge. Its
pontoon is
joined by a
footbridge
to the river
wall -

Figure 2.



1.3 The NW8+ approached the pier from the east, travelling in the same direction as the in-



from
Putney,
through the
centre arch
of Hammersmith
bridge, and
onto Dove
pier. Figure
3 gives a

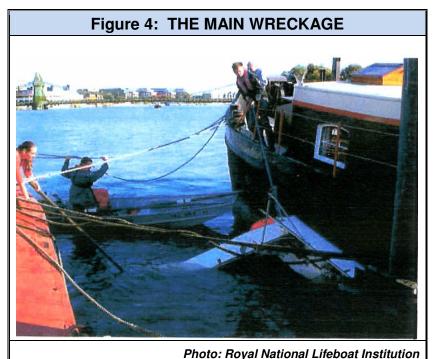
coming

("flood") tide

view of that approach at a comparable height of the tide. (Dove pier is in the far background as a

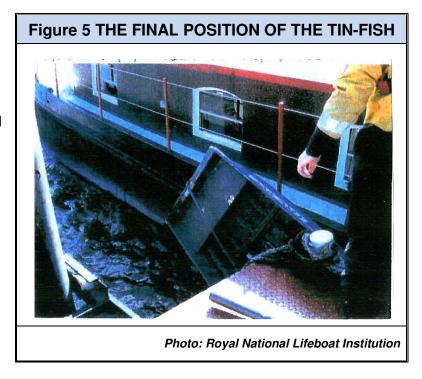
general

lighter mass at the river edge above the tree in the foreground.) The sequence of events is set out in the Incident Report copied at Annex 1(A) and is discussed in detail in section 4 below.



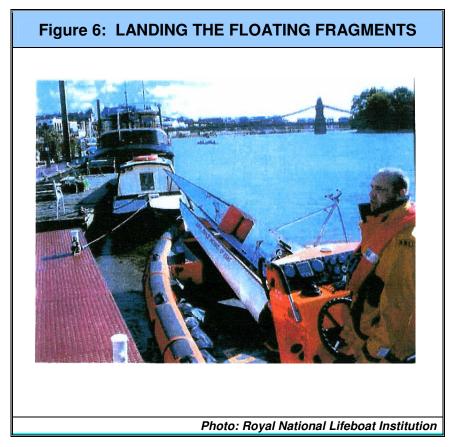
occurred when the flood tide carried the eight at an angle onto the bows of the *Amethyst Atoll*. The NW8+ then swung across its bows and onto the bows of the 'garden boat'. As the NW8+ broke up under the stresses, portions of it were forced into the space between the two moored boats and the pier pontoon – Figure 4.

1.5. **The tin-fish** driver And coach attempted a rescue but were swept onto the wrecked NW8+ and swamped. The tin-fish ended up wedged between the pontoon and the *Amethyst Atoll* – Figure 5.



(b) Survival

- 1.6 **11** rowers were now at very high risk of drowning. One individual went under the pontoon and three others went away into the river on the bow and stern portions of the broken boat. The remainder of the crew, the coach and the tin-fish driver found initial sanctuary on the mooring ropes and debris between the pontoon and the moored vessels.
- 1.7 Fortunately for the individuals, all 11 were rescued. The owner of the Amethyst Atoll was at home, heard the incident and was able at once to begin to help most victims onto his boat. Other rowing coaches with their launches saved those swept away. The Royal National Lifeboat Institution (RNLI) in-shore rescue boat, summoned by a "999 – Coastguard" phone call, attended. And recovered the wreckage of the eight - Cover and Figure 6.



- 1.8 Many of **the 11 were looked after in the Hammersmith rowing clubs**, especially Auriol Kensington RC (AKN). All returned later in the day to TRC. None had suffered enduring or substantial injury or loss. Their boat was written off. The tin-fish was returned eventually to TRC.
- 1.9 The "Dove pier incident" had remained only that **an avoidable 'incident**', but *not the disaster or tragedy to which TRC and the sport at large had come so close*.

Section 2. The regulators' responses

- (a) The October 2006 Tideway regulatory regime
- 2.1 The day before the incident, the Port of London Authority ("PLA" the navigation authority for the tidal Thames) and the Thames Regional Rowing Council (TRRC) of the Amateur Rowing Association (ARA) had inaugurated a new regulatory regime for rowing on the Tideway Table 1.

Та	Table 1: OUTLINE OF THE TIDEWAY CO-REGULATORY REGIME			
Name	Description	Function		
PLA	The navigating authority for the Tideway.	Regulates all boat movements on the Tideway but, in agreement with the TRRC, investigates only those rowing incidents involving injuries, financial loss or non-rowing craft.		
TRRC	Co-regulator for Tideway rowing matters	Recognized by the PLA as its co-regulator for the sport on the Tideway to administer the application of the provisions of the Code to most rowing activities and incidents.		
ColRegs	The International Regulations for Preventing Collisions at Sea	Formulate the 'Law of the Sea' (as the Tideway is an arm of the North Sea).		
Byelaws	PLA River Byelaws 1976	Develop and apply the navigation requirements of ColRegs to the Tideway as a narrow waterway.		
Tideway Rowing Code ("The Code")	"Rowing on the Tideway: A code of practice for rowing on the tidal Thames above Putney; 2006." PLA. TRRC. October 2006.	The Code sets out the Tideway navigation requirements for vessels propelled by oars and their accompanying coaching launches ("the rowing rules") and modifies, explains and illustrates those in detail. It is <u>additional</u> to other provisions governing the conduct of rowers, notably the ARA Water Safety Code (WSC)		
Rowing on the Tideway	A PLA chart to accompany the Code	Charts the Tideway from Richmond lock to Putney showing the channel, bridges, piers, moorings, shoals, navigation buoys, other provisions of the Code, and the "NORMAL ROWING ROUTE ".		

2.2 The PLA had **to examine such a near-disaster** to establish its causes and to adjudicate individuals' responsibilities for it. Indeed, the potential consequences of this incident were *so* serious that it could have merited the involvement of the Maritime Accidents Investigations Bureau or given rise to legal action against one or more of the rowing personnel involved for a breach of ColRegs or the Byelaws. TRRC, however, commissioned this complementary review to follow completion of the PLA's formal proceedings and actions, if any, on individuals. The objective was to look, without re-opening the PLA's conclusions, at broader and deeper issues for rowing clubs, the Tideway regulatory framework, and the sport as a whole.

(b) The PLA investigation

- 2.3 The TRC coach prepared an **incident report** for the ARA and the PLA. Although the cox was "master of her craft" for all legal purposes, she was a junior rower (under 16) and under the supervision of the coach, so she was not required either to submit a report or to make herself available for interview by the PLA. The coach's report is copied at Annex A(1).
- 2.4 The PLA began its **formal investigation** by interviewing the coach. After considering his report and the interview, the PLA wrote to the TRC coach extract at Annex A(2). Whilst critical of some aspects of his conduct, the PLA decided that no further specific action on its part would be required. In so deciding, the PLA was aware of, and had already welcomed, TRRC's decision that it would subsequently review the incident to identify the wider lessons for the sport on the Tideway.

(c) TRRC review

2.5 **TRRC** resolved:

"To review the incident at Dove Pier:

- 1. To determine the factors leading up to, in and after the incident.
- 2. To determine what lessons can be drawn from the incident.
- 3. To make recommendations which may minimise the risk of a recurrence."
- 2.6 The Chairman of TRRC established **a review team** to investigate the incident and report back to the Council Table 2:

Table 2: THE REVIEW TEAM			
Neil Jackson.	Bill Mitchell.	Stuart Ward.	
Thames Regional Water Safety Adviser (RWSA), November 2006-07. ARA Divisional representative for Barnes & Hammersmith.	Vice-President of TRRC. Chairman of TRRC's Rowing Conduct Panel. Chairman of the Fuller's Fours Head of the River. Umpire.	ARA National Water Safety Adviser (NWSA). Independent of Tideway interests, but having raced on it.	

2.7 Before the team started work, TRRC joined with the PLA to **circulate to rowing clubs the general conclusions** from the PLA investigation. The Chairman of TRRC and the Chief Harbour Master of the PLA wrote on 24 November 2006 a joint letter passing on to clubs for

action in relation to their own rowing outings the key factors causing the Dove pier incident – extract at Table 3.

Table 3: EXTRACT FROM THE TRRC/PLA LETTER TO ROWING CLUBS

- " The ... investigation has concluded that a number of factors combined to cause the accident. These included:
 - A very strong flood tidal stream.
 - The combination of a novice crew and an inexperienced cox.
 - Inadequate pre-outing assessment.
 - Inappropriate navigation (safety) plan.
 - Making unnecessary alterations of course for other craft, thereby diverting from the optimum track.
 - Failure by the coach to stay in close contact with the eight
- The ARA Water Safety Code states that, "Before beginning any coaching session, water- or land-based, the coach must go through a risk assessment process relevant to the activity proposed. The assessment must take into account the ages, abilities and limitations of the athletes involved, together with the water and weather conditions prevailing or facilities available, so that a Safety Plan can be prepared and the programme of activity adjusted to suit." It is essential that all rowing clubs using the Tideway ensure that this guidance, and that contained in the PLA/TRRC's new Rowing Code, is known by their members. In particular, clubs must ensure that coaches recognize their responsibility for safety and do not expose inexperienced crews and coxes to conditions beyond their ability
- " The Thames tideway is a challenging environment which demands respect. On this occasion a tragedy was fortuitously averted. Please make sure that all in your club are made aware of the incident, and that the circumstances surrounding it are never repeated."

Martin Humphrys, Chairman TRRC Bruce Richardson, Harbourmaster, PLA

Section 3. The work of the review team

3.1 The team set out **to explore the incident in depth** with the individuals involved directly in it and those responsible for the operational management of water safety and rowing at TRC. This meant our taking a much broader approach than the PLA, tracing causality – but NOT blame – back beyond the events of 7th October and the factors spelled out in the 24 November letter. Our goal was to help the sport on and off the Tideway to minimize the risk of any repetition of this kind of incident, including, if appropriate, recommending changes to the Tideway Rowing Code.

<u>BEFORE we started our work, Tideway clubs should have acted on the 24th November letter to ensure that their members, coaches and officials anticipated and prevented the immediate causes of the Dove pier incident identified by the PLA and endorsed by TRRC.</u>

3.2 The team **collected evidence** through round-table discussions with selected individuals, drafting a note of the contents of the discussion, and circulating it to those present to correct errors or omissions or to add further and better thoughts or background or explanatory material. We then used the agreed final version as their "evidence" for this report. (One potentially key player – a male single sculler ("M1x") from Furnivall Sculling Club (FSC) mentioned by the TRC coach – did not come forward at the time of the incident to volunteer evidence about what happened or his part in it; our efforts to identify and contact him also failed.) We also tested our emerging ideas in a less structured way with many colleagues at PLA and TRRC or 'on the towpath' familiar with the regulatory and rowing context we were studying.

We are very grateful to all those who contributed to our work.

- 3.3 The material we compiled covered three principal topics:
 - (1) The role, if any, in the development of the incident of <u>the Code</u> as it applies at Hammersmith:
 - (2) Aligning the training, selection and management of coxswains, other steersmen or –women and scullers ("<u>steerers"</u>) with their legal responsibilities as "master of their vessel".
 - (3) Implementing the <u>risk-based approach to water safety</u> management required by the ARA in its WSC.

We set out the lessons and our recommendations in that three-part structure in this report; but those should be read together with the explanations, justifications and operational details in the attached Annexes B, C or D which relates to each part.

3.4 In identifying the lessons from the incident, preparing our recommendations, and presenting them here, there is **no intended criticism of any individual** at the heart of matters on or before 7th October.

In what follows, it is only the lessons that count.

Section 4 How the incident developed

- (a) Before the TRC NW8+ boated
- 4.1 **The NW8+ outing** began at TRC boathouse on Putney hard, in relatively calm and sunny conditions. Traffic was active but normal for mid-morning on an Autumn Saturday. There was,

however, an *exceptionally* fast tide running that day. A flood tide runs faster along the Tideway than an out-going ("ebb") tide unless it is resisted by a heavy counter-flow of land water from the upper river. On that morning, the flood tide was both:

- * being driven hard by the most extreme vertical rise from Low Water (LW the bottom of the tide) to High Water (HW the top of the tide) for many years¹; and
- * facing minimal resistance from land water flow since the upper river was then in near-drought condition.
- 4.2 **The crew** belonged to TRC's novice squad. TRC is a big club, with adult and some junior members or school-based associates. The club had had the usual Autumn intake of new members, of all standards from highly trained through part-experienced novices to beginners. Its novice squad was substantial, comprising mainly members new to the club, and was organized to operate somewhat autonomously within the club. The NW8+ rowers were seniors and a few juniors (one of whom, even so, had had single sculling experience on the Tideway). There was no formal on-the-day risk assessment (RA) as such. The crew for the outing had, however, had been selected to include some rowers, albeit novices, with experience of being afloat and under a cox's control. The core was beginners needing to build on-the-water experience after their initial land coaching and a small number of previous outings. The cox was a junior, with Tideway single sculling experience, but herself a beginner as coxswain.
- 4.3 **The coach and driver** were those assigned to TRC's novice squad. Their goal was to bring its members on to the point where they could move up to the Intermediate squad. The coach was experienced as both a coach and a Tideway rower and sculler, but had not yet got a recognised coaching qualification (which would then have been the ARA Instructor's Award, now replaced by the "Level 2" qualification). The driver, also not formally qualified, had built personal experience of coaching coxes. Coach and driver had both been trained in the use of the tin-fish by the club. They had been coaching other crews earlier that day.
- 4.4 In the absence of an RA, **the outing plan** did not include express arrangements taking account of either the special conditions prevailing on the day or the level of experience of the crew and its master. It was to be a routine early-Autumn training session accompanied by the coach in the tin-fish. The vessels planned to go through Hammersmith bridge (about 2.5km from Putney) towards Chiswick, before turning to row back to Putney against the tide. The coaching team picked up the NW8+ for the outing at Putney and exercised detailed control of the vessel,

¹ On 4th October, the PLA alerted Tideway rowing contacts by e-mail to the extreme HW and LW conditions forecast for that weekend.

via the cox or by way of direct orders to the crew, stopping and starting them and carrying out various exercises or continuous passages.

(b) Getting to Dove pier

4.5 The planned route of the NW8+ and launch — Table 4 - would have taken them up-river along more than half of the Tideway's long-standing championship course (between Putney pier and Chiswick bridge). The course of the NW8+ through roughly 600m from (c) Riverside to (e) Dove pier is described and mapped in the TRC coach's incident report reproduced in Annex A(1).

Table 4: THE PLANNED NW8+ OUTING ROUTE

- (a) Across the Tideway from Putney hard and up-river with the flood tide, along the starboard (cox's right) Middlesex edge of the channel
- (b) Up Crabtree reach of the Tideway on the Middlesex station
- (c) Onto the start of the long left-hand ("to port") Hammersmith bend flanked by the Riverside site on the Middlesex bank and Harrods wharf on Surrey
- (c) Through the main arch of Hammersmith bridge on starboard station.;
- (d) Past, in succession along the Middlesex bank but set well back from the fairway edge, the rafts of the ARA, AKN, and FSC, followed immediately by some moored houseboats.
- (e) After a short gap, outside the MV 'Amethyst Atoll', moored to the outer, southern, river-side face of the pontoon of Dove pier
- (f) On round the continuing bend towards Chiswick Eyot

(c) The crash

- 4.6 By the time the NW8) was nearing the AKN raft at (d) in that list, the **tin-fish and NW8+had become separated**. Even with a loud-hailer, communication between the coach and the cox or crew was inevitably difficult. The position of the NW8+ and the force of the tide were by then critical. There was at best a small and fast-decreasing margin for manoeuvring round the pier. Decisive, correct and well-executed manoeuvres were needed to stand any chance at all of avoiding the crash. The scope for any such manoeuvre was further reduced by the presence of the FSC M1x returning to Furnivall raft.
- 4.7 As described in section 1, the NW8+, heading across the tide was then **swept by the flood tide onto Dove pier**. It lodged at an angle across the bows of the *Amethyst Atoll* and swung across those of the garden boat. The NW8+ boat began to break into many pieces. The bow and stern of the broken eight were swept away. The accompanying tin-fish, attempting to

help, was swamped, swept onto the wreck of the boat, and eventually forced by the power of the tide onto its side and into the narrow space between the *Amethyst Atoll* and the pontoon.

- 4.8 For eight of the 11, the emergency went far beyond the **standard rowing response to a wrecking** "stay with the boat".
 - * Three crew members were *swept away* into the river on the bow and stern fragments.
 - * Another member went right *under the pontoon* and surfaced beyond it.
 - * Most of the crew, the coach and the launch driver *had to abandon their vessels* and clamber onto the barges' mooring equipment or debris trapped between the barge, pontoon and lighter.
- 4.9 All 11 were **rescued by many people**, including other rowing coaches with their launches, and the residents of Dove pier and the *Amethyst Atoll*. The eight, its bow and stern fragments recovered (as shown in the photographs above) by RNLI, was written off. The tin-fish was returned eventually to TRC.

Section 5 The lessons

(a) General conclusion

5.1 This "tragedy averted" was not simply a matter for TRRC and TRC to sort out under the PLA's stewardship of the Tideway. The lessons from Dove pier in October 2006 are of much wider relevance to rowing. Some of the causative factors and the actual, potential or recommended remedial actions on them arise with every rowing outing, however ordinary it may seem on the day, by every rower however experienced, and so to every club or Region within the ambit of the ARA.

(b) The Tideway Code and the incident

5.2 The Tideway Rowing Code's provisions for **navigation on a flood tide in the vicinity of Hammersmith bridge** are fundamentally sound. They did not contribute definitively to the Dove pier incident. They are not likely to be enhanced by any major revisions to the Code or additional markings on the river.

- 5.3 Dangers can, however, arise from **misapplication of the Rules**. The *process* of introducing the Code unintentionally created a climate leading to *over*-compliance with, or incomplete grasp of, some provisions. That can be avoided by adequate briefing and education before boating and by expert and balanced compliance on-the-water.
- The way ahead is more, better and **continuing education about the Code**. The price of safe and well-behaved use of the Tideway is vigilance on the part of clubs as to the knowledge and conduct of their steerers and coaches especially at pinch points, crossing places and restricted zones (RZs). There is a need for clarification of the application of the Code in relation to boat movements to and from clubs based on the opposite side of the river to "the slacks", (those parts of the channel outside the fairway, also known as the "in-shore zone" or "IZ") authorized by the Code for use by rowers moving against the tide.

(b) 'The master of the vessel'

- A formal club-based **scheme of steerer-licensing** for coxes; scullers and steers-men and –women ("steerers") is urgently needed. It is too important and too widely needed a skill in the modern sport to be left in its current inconsistent state. Much of the task is rightly learned 'on the job'. But it is too risky for learner-steerers to be allowed out unsupervised without having formally demonstrated to their club their basic minimum capability to do so. The qualifying skill base must include the local hazards and navigation rules; but a formal scheme of a specific Tideway endorsement for unsupervised visiting steerers is not practicable under current circumstances.
- 5.6 Coaches must plan and run outings with full **respect for their steerers' responsibilities** and capabilities. They lead the way for their charges. They rightly expect to plan outings and, on the water, to determine what the crew does next. But they *must* avoid placing steerers at risk of a breach of their duties let alone putting the crew at undue risk.
- 5.7 The **relationship** *on and off* the water between coach and steerer is safety-critical, especially while the latter is building general experience or local knowledge. Coaching a steerer is, however, a specialized skill in its own right. It is unfair on a developing steerer, the crew or the coach if the latter is assigned to an outing without having already demonstrated the necessary training, skill, aptitude and awareness of the steerer's role.

(c) Risk management and rowing

- No one factor 'caused' the Dove pier incident. Many small decisions accumulated from well before the day of the outing through to the point of contact with the vessels moored at the pier. Most of those decisions were quite ordinary in rowing terms. The aspects of good rowing safety culture and practice which then and now prevent other such incidents from happening, were well-established and widely applicable. There is no 'magic formula' here. Every club needs to establish and maintain the standards already visible in the best-run ones.
- 5.9 Rowing is **a self-actuating sport**. It is also predominantly competitive. We largely discipline and drive ourselves individually or as small groups within our clubs. When we are on the water where we want to be! we are beyond the immediate control of club officials. We *must* each police ourselves or no-one does it. In such circumstances, safety can be delivered only if the culture of a club makes it part of the fundamental conduct and priorities of its members.
- 5.10 There is no substitute for **an on-the-day Risk Assessment** carried out by every member for every outing, even when everything looks ordinary and unchallenging. Only then can the unusual be identified and the participants made aware of the ways in which their personal safety inter-depends with their colleagues and, if there is one, their coach. Clubs have to organize their coaching, crew selection, and individual training and development structures in order to minimize the probability of an inexperienced crew being led by an inexperienced steerer taking to the water.
- 5.11 **Clubs' duty of care to their members** means that they must take the initiative in:
 - * identifying foreseeable extraordinary risk factors *before* they crystallize;
 - * forcing those into the awareness of all members and their on-the-day RAs;
 - * instructing their captaincy, safety and coaching teams to factor them into their plans and decisions; and
- * assisting their individual crew members to understand and assess the implications. All clubs should have procedures in place for forecasting hazardous conditions and putting in place, communicating, and logging preventive or risk-mitigating measures.
- 5.12 The water safety function must be embedded in the highest level of command of any club. Its officers and members must not only know what the committee or other leadership expect of them, but also that the committee will make sure that it knows that they are living up to expectations and will, ultimately, make the chronic, un-educable back-sliders leave.

Section 6 Recommendations

(a) Making the Code work better

- 6.1 TRRC should review its educational and advisory activities and materials for clubs so that the latter train their steerers, coaches and officers to deliver **informed compliance with the provisions of the Code**, avoiding over-compliance with some rules or taking any one rule in isolation.
- 6.2 TRRC should remind Thames Region clubs (and other Regional Rowing Councils for the benefit of their clubs' crews visiting the Tideway) of the **complexity of decision-making at Hammersmith** and other critical points on or near the Championship course. Clubs must ensure that steerers or their on-the-water supervisors are trained for, and aware of, those challenges before they are authorised by their club to tackle them.
- TRRC should invite AKN and FSC to codify with their tenant clubs and with the ARA their existing **local crossing arrangements** to and from their rafts on the Hammersmith foreshore. Other groups of clubs whose boathouses similarly do not have direct access to "the slacks" on the opposite, Surrey shore should be invited to follow that example. Those need not form part of the Code. But TRRC could then publish them for general information.

(b) Bringing in a licence for steerers

- 6.4 TRRC must give priority to implementing an effective, club-based, externally verified formal system of steerer licensing so that all Tideway clubs catch up with what the best ones already do. The scheme should be separate from the forthcoming ARA club-based Level 1 and 2 cox-assessment proposals. The proposed pilot study for the latter on the Tideway agreed between the ARA and TRRC should ensure that the 'Tideway licence' is consistent with the ARA scheme. It should be easy for any individual who wants to do so to continue further along the same pathway to achieve Level 1 or 2 qualification. TRRC must use its influence at ARA national level to get the pro-active support of other Regions for equivalent training for visiting steerers.
- 6.5 TRRC should remind clubs of their existing **duty to educate** *all* **of their members about navigation and safety** on their home *and* other waters before allowing them to boat. Within a club, steerer training and the standing arrangements for crew selection and outing preparation should include:

- * awareness of the steerer's role as "master of the craft" and ultimate right to make decisions on whether and where to take the boat; and
- * support for steerers to resist inappropriate instructions from within or outside the boat.
- 6.6 ARA must ensure that its **coach training methods and materials** test awareness of the skills and burdens of steerers and incorporate steerer-management and -development skills. The materials for those purposes should be brought to the attention of clubs for them to use with their coaches who have yet to gain formal coaching qualifications.

(c) Reducing the risks (to rowers and caused by them)

- 6.7 All Clubs must include the importance and methodology of **personal Risk Assessments** in induction briefings for new members and coaches, and continue to reinforce that for all active members at regular or fortuitous opportunities such as training camps, start-of-season meetings or land-training sessions.
- 6.8 Club committees should review from the top down the place safety occupies in what they expect their members to achieve, set out their expectations clearly (especially at the start of each rowing year in September), and keep under constant review how their officers, coaches and members are going about achieving it. They should be encouraged to use the TRRC on-line incident reporting system. And the reports from the TRRC conduct regime should be taken seriously.
- 6.9 Clubs should review their **squad and coaching structures** in order to spot where they are tending to boat higher-than-acceptable risky crew-steerer combinations, and to build in active preventive measures to reduce the risk for the learner-steerers.
- 6.10 Committees must take steps to translate their safety policies into tough decisions:
 - (A) Resourcing the safety function in terms of: people authorized and empowered to promote it; financial support for training each coach, steerer, Club Water Safety Adviser, and launch driver; and requiring coaches and athletes to build into their agendas time to be spent on safety and navigation training even when crews, coaching, boats and outings seem to be taking up all the available volunteers, time and money.

(B) <u>Tackling</u> misbehaving members who have failed to respond to all attempts at explanation and education no matter how important they are to the club's racing success; when all else has failed, rejecting members or coaches who put themselves, their colleagues, or other rivers users at risk or whose conduct brings the club or sport into disrepute.

Neil Jackson Bill Mitchell Stuart Ward

Hammersmith
29 February 2008

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# **ANNEXES**

ANNEX A: INCIDENT REPORT AND THE RESPONSE OF THE PLA
ANNEX A(1) DOVE PIER: COPY OF INCIDENT REPORT
ANNEX A(2) EXTRACT FROM LETTER FROM THE PLA TO THE TRC COACH

ANNEX B: THE INCIDENT AND THE TIDEWAY ROWING CODE

ANNEX C: APPOINTING THE "MASTER OF THE VESSEL"

ANNEX D: A RISK-CENTRED APPROACH TO SAFE ROWING

### ANNEX A: INCIDENT REPORT AND THE RESPONSE OF THE PLA

ANNEX A(1)

### **DOVE PIER: COPY OF INCIDENT REPORT**



### Water Safety Code Incident Report Form

| Incident Log Book Reference Number                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Please complete this form to report any serious Incident Involving injury to persons or serious damage to equipment. Retain a copy and, as required by the ARA Water Safety Code, paragraph 1.7, send the original to the Safety Advisor at your Regional Rowing Council and a copy to the Amateur Rowing Association, 6 Lower Mall, London W6 9DJ, within 14 days.  (Continue on separate sheets wherever necessary.) |
| Name of club/regatta/nead reporting the incident THAMES ROWING CLUB                                                                                                                                                                                                                                                                                                                                                    |
| **************************************                                                                                                                                                                                                                                                                                                                                                                                 |
| What clubs or third parties were involved? THAMES                                                                                                                                                                                                                                                                                                                                                                      |
| Types of boat involved eg 8x, 4-, 2+, 1x, etc                                                                                                                                                                                                                                                                                                                                                                          |
| Were the boats (please tick)  Training? Racing?  Just on an outing?                                                                                                                                                                                                                                                                                                                                                    |
| What ARA divisions or regions do parties belong to? THIME REGION                                                                                                                                                                                                                                                                                                                                                       |
| What was the time and date of the incident? 11:45 and/pm = 7 00708000 20 0 7                                                                                                                                                                                                                                                                                                                                           |
| Where cid the incident occur? BE DOVE PIER, HAMMERSALLTH                                                                                                                                                                                                                                                                                                                                                               |
| Please give a full description of the incident; this should include weather, water, stream & fide conditions. If after dark or in conditions of poor visibility, what lights were being shown by all parties? Please include or attach any additional details e.g. drawings / diagrams / photographs if these will enhance the description.  (SEX ATTROHED)                                                            |
|                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Continue on a separate sheet if necessary                                                                                                                                                                                                                                                                                                                                                                              |

AMATEUR ROWING ASSOCIATION The Priory, 6 Lower Mall, London, W6 90J.T.020 8237 6700 F.020 8237 6749

### **Description of Incident:**

**Coaches**: X Xxxxx (coach in charge), X Xxxxxx (driver)

**Conditions**: Incoming tide at Hammersmith. Good daytime light conditions. Low to mid tide moving inland fast. Approximately 11:45 am Saturday 7 October 2006.

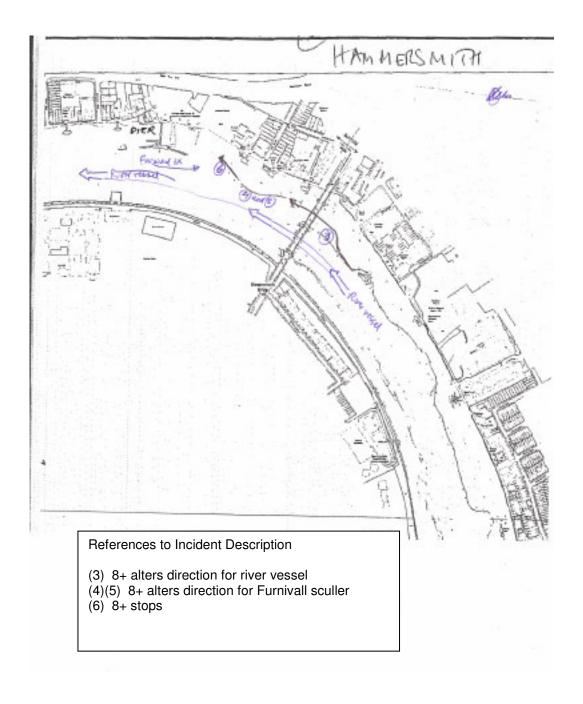
- 1. Whilst training, the TRC 8+ "Prince Michael of Kent" accompanied by TRC motor coach launch "TRC008" proceeded inland with tide towards Hammersmith Bridge.
- 2. TRC 8+ was between to the right of the fairway and followed by coach launch approximately 20m behind.
- 3. The 8+ and coach launch altered course to starboard to allow passage of a large ferry vessel approaching at speed on the fairway from behind. The ferry vessel overtook the TRC 8+ between a position under and 30 metres past Hammersmith Bridge.
- 4. The TRC 8+ and coachboat commenced recorrection of course toward the fairway. This was interrupted by altering course to avoid that of an on-coming IX with Furnival blades and male sculler which was proceeding in a diagonal direction against the stream presumably towards Furnival RC.
- 5. The TRC 8+ moved further toward the Middlesex side to avoid collision as the IX closed on its diagonal course. The Furnival IX crossed between the path of the TRC 8+ and the coach launch. The launch was at this point approximately 30m diagonally to the rear and port side of the 8+.
- 6. The TRC 8+ was by now far to the right of the fairway and between 30 to 40m of the Hammersmith shoreline near Auriol Kensington club, stopped rowing per instruction of coach in charge and started to turn its direction towards the centre of the river.
- 7. The TRC 8+ recommenced rowing following the instruction to do so but did not move fast enough to avoid being pulled towards Dove Pier. The TRC 8+ struck the "Amethyst" which was the leftmost (Surrey side) of two Barges at Dove Pier, first striking with its 1 and then 3 blades on the Starboard side of the 8+. The current then swung the 8+ across the second of the two barges (that on Middlesex side) as rowers fought to keep the 8+ righted.
- 8. The coach launch closed to attempt to pull the 8+ off and to otherwise attend to the crew. The 8+ rolled outwards and crumpled from the bow and stern dropping the crew into the water as it did so. The three sections of the 8+ by this time were separating and the bow section and rower traversed the Surry side of one barge while the stern section broke away and traversed the Middlesex side of the other barge with the stroke rower and coxswain. The remaining rowers fell with their boat and with the boat were swept by the fast current into and under the section between the two barges and the Pier.
- 9. The rowers that had been swept around and under the barges and Pier were rescued by another coach (Josh Raymond) in another launch from TRC that had observed the boats against the Pier and crew in the water. The remaining rowers trapped between the two barges clambered onto the barges and Pier as did the two assisting TRC coaches whose launch had become trapped between the Pier and the Middlesex-side barge and sank.
- 10. The three sections of the 8+ were swept under and around the Pier.
- 11. Several were assisted onto the Pier with the help of a Mr Everett a resident of the Amethyst and several others who threw lines. Other assistance in the form of tea, showers and clothing was provided to a number of the crew by Auriol Kensington club. The remaining crew returned together to TRC by taxicab.

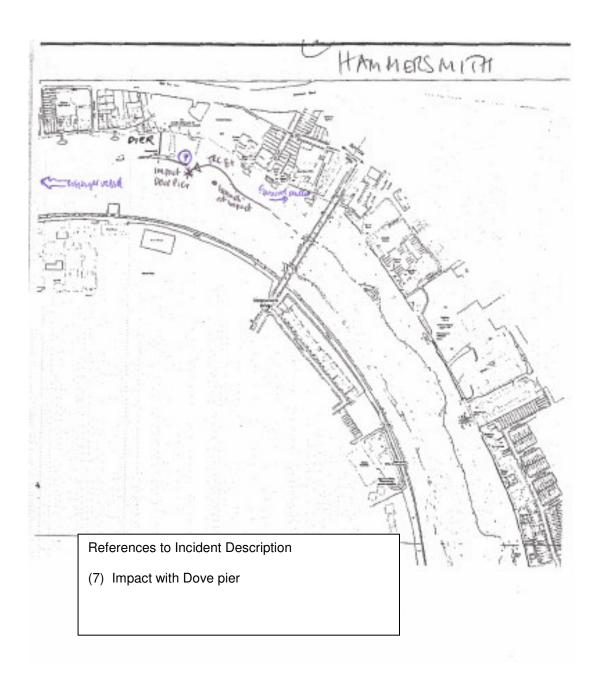
### **List of Injuries Sustained:**

• No injuries other than a few minor bumps and scrapes were sustained. No injuries were reported by the following day.

### **Description of Property Damaged:**

- 8+ The Prince Michael of Kent was broken in three sections
- 3 oars were not recovered and several damaged
- 2 megaphones were lost
- Assorted boots (5 sets) and clothing were lost
- Motor Launch TRC008 was submerged and engine filled with water
- Assorted articles in motor launch were not recovered including oars, medical kit and other articles.







Extra aerials, maps etc

ANNEX A(2)

### EXTRACT FROM LETTER FROM PLA TO THE TRC COACH

### "Background

On 7 Oct 06 at about 1200 a Thames Rowing Club women's novice eight with a coach boat (crew of 2) in attendance were set down onto the downstream end of Dove pier on a particularly strong flood tide. The eight was broken into a number of pieces and the coach boat was wedged on its side between a moored houseboat and the pontoon. All 11 people went into the water, one was swept under a houseboat and second was washed about 200yds further up-stream. The crews were assisted out of the water by the residents of Dove Pier prior to the Life Boat arriving on the scene.

### "The Conditions

"There was light wind and good visibility however an exceptionally strong spring flood tide was running. The Master of the PLA Harbour Service Launch (Upper) assessed the tidal stream as 3 to 4kts at Hammersmith Bridge.

### "The Crew and Cox

"The novice ladies eight was made up of 3 "juniors" and 5 novices ranging in age from about 18 to 30, they were not a particularly proficient crew. The cox was a "J16" with some sculling experience but little as a cox.

### "The Coach

- You were the coach and I understand that you have about 3 years coaching experience but do not have an ARA coaching qualification. When we spoke you appeared to understand the spirit of the duties laid down in the ARA Water Safety Code 2.5.4.1. You were aware of the predicted exceptional spring tides but you did not carry out a "structured" risk assessment in accordance with the ARA Water Safety Code 2.5.4.2.
- "You assessed that it was safe to proceed with the outing. However at my interview you stated that in retrospect you would still have gone ahead with the outing but should have planned to turn round well downstream of Hammersmith Bridge.

### "The Outing

- "Having left Putney Hard the eight proceeded up river on the starboard side accompanied by you in a tin-fish driven by a second person. As the eight approached Hammersmith Bridge it was being overtaken by a Class V and the cox, inadvisably, altered to starboard to make a bit more room, this resulted in the eight being considerably to the north of the optimum track as it passed under Hammersmith Bridge.
- At this point the cox should have altered to port to avoid being swept onto Dove Pier by the very strong flood tidal stream but the alteration was delayed probably because of a sculler shaping up for the Furnivall pier. Unfortunately you had allowed yourself to have become separated from your crew by about 30-50m and by the time you were close enough to take charge of the situation, despite giving emergency instructions, you were too late to prevent the eight being set down onto the down stream end of Dove pier and the house boats secured alongside.
- " Within seconds of hitting the pier the eight capsized and started to break up, the coach boat approached to give assistance and also capsized. All 11 people were thrown into the river; there was some panic that you did your best to quell.
- " As so often happens, this accident was the result of a chain of circumstances and errors rather than one mistake:

- Very strong flood tidal stream.
- Weak/inexperienced crew.
- Inexperienced cox
- Insufficient pre-outing assessment
- Inappropriate outing (navigation) plan
- Initially altering course to starboard for an overtaking Class V (ColReg 13 and 17) thereby getting too far to starboard of the optimum track.
- Delaying altering back to port regardless of the oncoming scull.
- You had become separated from the eight as it passed under Hammersmith Bridge.
- " Had any one of the above circumstances not come into play this accident probably would not have occurred and you would have "got away with it". I attach little blame on the cox; in my opinion she was unsuitable to take charge of a novice crew in the prevailing conditions.
- " I understand that this incident will be investigated jointly by the TRRC and ARA.
- " At our meeting we both agreed that it was incredibly fortunate that this accident did not result in serious injuries or fatalities; your description of what occurred once the crews were in the water was an object lesson of the dangers of rowing on the Tideway in strong tidal streams."

- - - - -

### ANNEX B: THE INCIDENT AND THE TIDEWAY ROWING CODE

"Those of you boating on the Tideway should not assume that they "know" what the real rules are, as some previously widespread practices and short cuts will no longer be tolerated."

TRRC website - Safety section

### B.1 The Tideway Rowing Code

### (a) Innovation and the Code

- B.1.1 The incident occurring at the very start of the new regime raised instant doubts about the fundamentals of, and preparatory work on, **the new, then-untested framework**. The regime itself, its novel elements, or the publicity for some of its provisions (especially those too-often breached in the past) might, in some degree, have contributed to the incident. The team was therefore tasked with looking critically at the Tideway Rowing Code as it related in detail to the route followed, problems confronted, and decisions taken by the NW8+ leading to its point of contact with Dove pier.
- B.1.2 The Tideway Rowing Code sets out for all users **the navigation requirements for vessels propelled by oars** and their accompanying coaching launches and explains and illustrates them. *Most of its provisions were NOT new.* Substantial sections of it merely clarified the requirements for rowers of the PLA River Byelaws 1976 which have been modifying *for over 30 years* the application of ColRegs to the Tideway, as a narrow arm of the sea. That was true in relation to both of the two key provisions:
  - (a) "The starboard hand rule", the basic rule of the road for rowers using the fairway when moving with the tide, where, in common with powered craft, they have always been required to keep to the starboard (cox's right hand) side of the channel.
  - (b) "Working the slacks", the long-standing, traditional privilege of rowers to use the inshore zone ("IZ" the shallow, lateral, slow-moving waters outside the fairway) to move against the tide around the insides of the big bends above Putney.

### (b) Preparing for the 6<sup>th</sup> October 2006 (and after)

- B.1.3 In consultation with TRRC, **the PLA laid navigation buoys** in anticipation of the new regime at certain critical places on the Tideway (Code 3.7, pages 36-38). The buoys separate potentially conflicting traffic movements which arise when rowers work the slacks in the opposite direction to the adjacent starboard station in the fairway. MVs stay on the fairway side of the buoys and are entitled to navigate knowing that rowers going against the tide will remain on the IZ side. The first buoys were red ("port hand") buoys placed to mark off some parts of the Surrey side IZ from the fairway.
- B.1.4 Subsequently, the **PLA has built on the buoying initiative**. That innovation was a clear success. In consultation with rowing and other river interests, the PLA placed <u>additional buoys</u>, (including some green, "starboard hand" ones on the Middlesex side of the fairway). At some locations, moreover, the some buoys served an additional purpose as long as that did not compromise their fundamental traffic separation role. For example a green buoy near Chiswick bridge helps to mark both the end of the Middlesex shore IZ and the down-river side of the crossing zone there. Most recently, in 2008, the PLA acted to improve management of the IZ at Hammersmith bridge around LW when the IZ shares the Surrey end of the main arch with the fairway. It obtained the agreement of the London Borough of Hammersmith and Fulham and other interests rightly concerned to protect the scheduled status of Hammersmith bridge to place <u>a discreet yellow marker</u> on the bridge deck to indicate the edge of the IZ when the Surrey arch is unusable Figure B.1.

Figure B.1: THE NEW PLA FAIRWAY MARKER, 2008

The PLA marker for the edge of the IZ at LW is the yellow spot on the bridge deck, above the bows of the boat. The boat was on its proper starboard station for the then-ebbing tide.

Photo: Neil Jackson, from launch provided by Chas Newens Marine

### B.1.5 For the rowing community, TRRC undertook **six preparatory initiatives**:

| Table B.1: TRRC'S SIX PRE-CODE INITIATIVES |                                                                                                                                                                                                                                                                       |  |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Name                                       | Description                                                                                                                                                                                                                                                           |  |
| Tideway experts afloat                     | Before the Tideway Head of the River race in 2006 (repeated in 2007 and 2008), TRRC sent out teams in launches to advise and educate home and visiting crews about the existing or then-emerging provisions.                                                          |  |
| Boat ID                                    | Every rowing vessel on the Tideway <i>must</i> carry a unique identifying code in the three letter (club) and three number (boat) format prescribed by the ARA, which made it easier to pursue a club for conduct failures by its members on the water <sup>2</sup> . |  |
| Educational seminars                       | Every Tideway club was invited to attend preparatory seminars on the agreed provisions of the Code given by those involved in its drafting.                                                                                                                           |  |
| Conduct Panel                              | TRRC adopted a new educational and enforcement process for clubs, operated by the President of TRRC, with members appointed on rotation from Tideway clubs to provide peer-group assessment of reported rowing misdemeanours.                                         |  |
| Circulation of Code and Chart              | Before the 6 <sup>th</sup> October, TRRC gave every Tideway club multiple copies of the Code and one durable copy of the accompanying A0-sized Chart.                                                                                                                 |  |
| The on-line system"                        | TRRC Commissioned the development and installation of an on-line incident reporting system (which subsequently came into full operation in February 2007).                                                                                                            |  |

B.1.6 **Compliance with the starboard-hand rule** figured prominently in both those educational initiatives and the resulting discussions in rowing forums. The use of boat ID made many individual rowers aware that they were now more likely to be reported for breaches of the navigation rules. *Some steerers undoubtedly over-corrected for their previous lax observance.* They steered not just to the outer

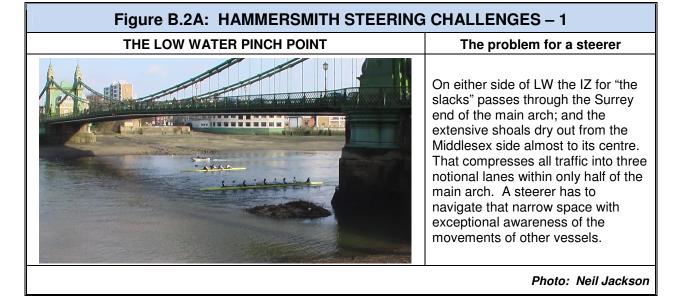
<sup>&</sup>lt;sup>2</sup> This requirement was extended by TRRC on 30<sup>th</sup> September, 2007 to all rowing waters in its region.

starboard edge of the fairway as required, but outside it into the IZ. That change was particularly striking on the flood tide along the Crabtree reach. Habitually, rowers had avoided that area. The shoals and spits of the Fulham Flats are rightly notorious for damaging boats by grounding. With the new Code, many rowers (wrongly) felt obliged to take station close to the bank all the way from Fulham Wall through to the Riverside site. That is not required to comply with the starboard hand rule. It can represent a degree of *over*-compliance with it. Doing that past Riverside brings rowing vessels into the vicinity of Hammersmith bridge on a line too close to the Hammersmith foreshore and Dove pier.

- B.1.7 **Rowers' customary behaviour on a flood tide at Hammersmith** before the new Code was often at odds with the starboard hand rule. In a competitive sport, there is a need when *racing* in the same direction as the tide to exploit the fastest moving water. At the bridge, that is "under the second lamp-post from the Surrey pier". Whilst that is compatible with the starboard station on an ebb tide, it is clearly 'the wrong side' of the fairway on the flood. It is legitimate *only* when, as in the Oxford & Cambridge Boat Race, the river is closed to other traffic by the PLA. But it is illegitimate, unsafe and unnecessary on an open river (i.e. the vast majority of the time, including training outings such as that of the NW8+). Many rowers found that, with the onset of the new regime, they had to forego the racing line in training on the flood and to stick to, the Middlesex, starboard station.
- B.1.8 That 'racing attitude' among rowers also wrongly expressed itself as a "get out of my way, I'm faster than you" overtaking rule. In fact, and for decades, the rule on the Tideway is that an overtaking vessel has to find its own safe and legal way past a slower craft or wait until it can do so. A slower vessel is normally required only to maintain its course and speed and to do nothing which would actively obstruct a would-be over-taker.

#### B.2 Hammersmith and the relevant requirements of the Code

- (a) The transit of Hammersmith
- B.2.1 **Hammersmith bridge and its approaches** offer a cox, steersman or sculler ("steerer") a number of challenges varying with the height and direction of the tide Figure B.2. The river is over 200m wide from bank to bank (Code, page 50). The bridge's central span is about 120m wide. The Middlesex arch is never used by rowers, even at HW.
  - B.2.1.1 The Surrey arch is used by crews working the slacks except when it dries out on either side of LW creating a pinch point Figure B.2A.



B.2.1.2 High on the tide, including the phase of the flood tide equivalent to that when the Dove pier incident happened, the problem is an excess of space within the main arch but with the crucial boundary between the fairway out of sight under metres of water without any markers – Figure B.2B.

# Figure B.2B: THE HAMMERSMITH STEERING CHALLENGES - 3

# FINDING THE MIDDLESEX EDGE OF THE FAIRWAY AT HW

The problem for a steerer



The upper shot attempts to replicate from the exposed edge of the Middlesex shoals at LW approximately the same perspective as the lower one taken from a launch at HW on the flood tide. From mid-tide to HW and back, the river covers all shoals with water deep enough for rowers from bank-to-bank. Steerers on starboard station on a flood tide must then estimate their route along the fairway within the full width of the centre arch water without immediate lateral guides. (Note from the upper shot that Dove pier is readily visible from many metres east of the bridge.)



Photos: Neil Jackson

In addition, high on a flood tide, an up-river-bound steerer must not only contend with the problem of finding the invisible edge of the fairway but also make allowance for the **being moved laterally by the river** because of:

- \* the marked difference of speed of the river between the fast current in the fairway and the slower water over the shoals; and
- \* the 'set' of the current (the sideways movement of the tide towards the outside of the bend).

B.2.1.3 A steerer must also navigate through the bridge allowing for the (entirely legitimate) activities of rowers belonging to the clubs on Lower Mall or using the Priory boathouse at the ARA - Figure B.2C.

# Figure B.2C: THE HAMMERSMITH STEERING CHALLENGES - 3

#### THE HAMMERSMITH FORESHORE

## The problem for a steerer



Between the bridge and Dove pier, steerers in transit must make allowance for rowing vessels (like the tin-fish and boat shown here) leaving from, or returning to, the ARA, AKN and FSC rafts. On either side of LW (as in this picture), such vessels have to use the edge of the exposed shoals by those rafts. That edge is more than 30m out from the river wall.

Photo: Neil Jackson

- B.2.2 In addition to those normal challenges for any cox of navigating the passage of Hammersmith bridge there were **specific complications on the day** of the Dove pier incident:
  - First, there were the effects of the exceptionally fast tide
    - carrying the NW8+ up-river at an estimated 3 to 4kts, relative to the fixed obstacles ahead, at all times even when 'easied' (stopped), with
    - an even stronger than usual 'set' towards the Middlesex side of the channel and the hazards of the Hammersmith foreshore.
  - \* Secondly, the coach and cox had to respond to the presence of other vessels, in particular:
    - a Class V boat (a large, licensed, passenger-carrying MV the "ferry" or "river vessel" mentioned in the incident report) in the fairway overtaking them as they approached the bridge; and
    - the FSC M1x coming towards them on an opposing course between the bridge and the pier in order to access the FSC raft.

Each of those complications was foreseeable before the outing started as an actual or very likely challenge to coaching and navigating during that part of the outing.

### B.2.3 The chain of NW8+ navigating actions between Riverside and FSC:- Table B.2

|                     | Table B.2: THE NW8+ MANOEUVRES AT HAMMERSMITH |                    |                                                                                                                                                            |
|---------------------|-----------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Repor<br>t<br>para. | Landmark<br>s                                 | NW8+<br>Action     | Notes                                                                                                                                                      |
| 2                   | Riverside site                                | Maintaining course | On or outside the starboard edge of the fairway                                                                                                            |
| 3                   | Queen<br>wharf                                | Turn to starboard  | Across the tide; away from the fairway to allow unobstructed passage for the overtaking Class V, rather than hold course and speed as required by ColRegs. |
| 3                   | Queen<br>wharf                                | Turn to port       | To continue through the main bridge arch; but still out of the fairway(The Class V finished overtaking off the ARA raft.)                                  |
| 4                   | Before AKN raft                               | Turn to port       | To regain the fairway.                                                                                                                                     |

| 4 | AKN raft             | Turn to starboard | To avoid the on-coming FSC M1x crossing from port towards the FSC raft.             |
|---|----------------------|-------------------|-------------------------------------------------------------------------------------|
| 5 | AKN raft             | Easy all          | To allow M1x to pass through ~20m gap between the NW8+ stern and the tin-fish bows. |
| 6 | Between<br>AKN & FSC | Turn to port      | On orders from coach; to take up a line towards the fairway                         |
| 7 | FSC raft             | Paddle on         | Across the tide, attempting to pass Dove pier and regain the fairway.               |

### (b) Eight relevant requirements of the Code

- B.2.4 It was argued to us that both the Dove pier incident and other subsequent rowers' crashes or near misses there could have been **Code-assisted incidents**. TRC had participated actively in TRRC's educational activities. The people involved in the incident were aware of the starboard hand rule and of the other general provisions relevant to the approaches to Dove pier. But this was new territory for many. The newcomers had not benefited from the club's January 2006 circulation of its Safety note (which was anyway not revised to incorporate the Code until the January 2007 edition). And some may not have participated in the club's new season safety seminar in September when the then-forthcoming Code was covered. Their outing preparations did not include any special consideration of the general or on-the-day challenges of transiting the bridge and pier.
- B.2.5 **Eight Code requirements govern a transit of Hammersmith**. They are listed and numbered in Table B.3 with their Code or related references. They are sequenced in broadly the order in which the NW8+ cox had to take and implement the relevant navigating decisions within some 500m of travel on the surging tide. Their individual role, if any, in the genesis of the incident is discussed in the next section. But a simple inspection brings out very powerfully *the burden of complex, judgemental decisions which our sport routinely places on its often young, untrained or inexperienced steerers.*

|     | Table B.3: THE CODE AND HAMMERSMITH                                                                                                                                                          |                                                                                     |  |  |  |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--|--|--|
| No. | Summary of provision                                                                                                                                                                         | Reference(s)                                                                        |  |  |  |
|     | (A) Established provisions                                                                                                                                                                   |                                                                                     |  |  |  |
| (1) | When using the fairway, keep as near as safe and practicable to the outer, starboard edge                                                                                                    | ColRegs 9 (a) & Code 3.1, page 28.                                                  |  |  |  |
| (2) | When being over-taken hold course and speed                                                                                                                                                  | ColRegs 13 (a) & Code section 3.2 third indent, page 30.                            |  |  |  |
| (3) | Leave room for vessels needing deeper water or more sea room to manoeuvre. This relates explicitly to the Class V MVs.                                                                       | ColRegs 9 (b) & Code 3.1,<br>page 29. Byelaw 19 (2) &<br>Code 3.6, page 35          |  |  |  |
| (4) | Avoid the <u>risk of collision in a head-on situation by moving</u> to starboard                                                                                                             | ColRegs 14 (a) and (c) & Code 3.4, page 32.                                         |  |  |  |
| (5) | Even where the Rules oblige another vessel to give way to avoid a collision, do the safest thing                                                                                             | ColRegs 17 & Code 3.5 page 33.                                                      |  |  |  |
| (6) | Crossing the fairway to the Hammersmith rowing clubs and other locations across the channel from an IZ designated for crews working the slacks.                                              | Code section 2.5, final indent, page 23, as governed by ColRegs 9(d), Code page 29. |  |  |  |
|     | (B) Innovative provisions                                                                                                                                                                    |                                                                                     |  |  |  |
| (7) | A navigation diagram showing the normal rowing line, if safe and practicable, for a rower to follow at "Hammersmith Bridge with the tide flooding", along the Middlesex edge of the fairway. | Code section 2.1, page 8.                                                           |  |  |  |

| (8) | A Restricted Zone (RZ) across the width of the fairway at Hammersmith bridge, extending about 100m down- and upriver from it, within which turning, stopping and crossing are proscribed. | Code section 2.4, page 20. |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|

## B.3 Requirements (1), the starboard edge of the fairway, and (7), the normal rowing line

B.3.1 The **NW8+** and tin-fish kept to starboard until Queen wharf. Their actions showed that they were clearly alert to the issue as then being debated. And they were commendably keen not to baulk faster vessels sharing the fairway. But the NW8+ went significantly beyond the edge of the fairway as a result of their (unnecessary) decision to move away from the line of approach of the Class V vessel. So the key factor in their decision to take up the wrong line before the bridge and stand into danger was NOT the starboard hand rule or its interpretation during the run-up to the new regime.

B.3.2 None of the **risk-mitigation measures at Hammersmith** which were raised in discussions with us stood up to our scrutiny – Table B.4.

| Table B.4: RISK-MITIGATION AT HAMMERSMITH                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Suggested measures                                                                                                                                                          | Arguments                                                                                                                                                                                                                                                                                                                                                                                      |  |
| Place a green buoy on the Middlesex side of the fairway at Queen wharf.                                                                                                     | It would give only starting guidance. Steerers need to follow a further 400m-long, curving line to pass Dove pier. From the MV point of view, it would fundamentally change the function of the buoys since, far from separating rowers working the slacks from MVs they would actually aim to bring both types of craft together into the fairway.                                            |  |
| Mark the Middlesex end of<br>the deck of Hammersmith<br>bridge to indicate the<br>boundary between the<br>fairway and the IZ                                                | This has been done at the Surrey end to show the boundary around LW when the inside arch is dried out and the IZ perforce shares the centre arch. The words "BRIDGE" on the eastern, flood-tide-approach side and "HAMMERSMITH" on the western, departure side are over the Middlesex edge of the fairway. Those already do the job. A buoy or other mark here would mislead MVs.              |  |
| Place a green buoy off the AKN raft to separate the starboard side of the fairway from the zone used by crews moving against the tide to or from the ARA, AKN and FSC rafts | It would also to mark the up-river Middlesex corner of the Hammersmith bridge RZ and indicate the safe line past Dove pier. But it would again mislead MVs. Near LW, it would complicate the task of getting round the emerging Middlesex shoal (see Figure B.1C). Clubs should brief their steerers about crews boating at the Hammersmith foreshore.                                         |  |
| Mark Dove pier prominently as a hazard projecting into the fairway.                                                                                                         | The pier is easily visible from river level at the bridge. It is marked at night. Its visibility was not an issue in the NW8+ crash. It is no more prominent a fairway obstacle than the unmarked pillars of Putney and Barnes bridges which rowers have contrived to hit in 2007. Keeping a good look-out is a primary, necessary and sufficient safety requirement for all of those hazards. |  |
| Re-formulate the starboard hand rule (generally for rowers, or at especially difficult places like Hammersmith bridge high on the flood).                                   | This is based on a misunderstanding of the rule. The requirement to keep to starboard and the location of the fairway edge are matters respectively of definition and fact. Those cannot be changed willynilly. What matters is how steerers understand and apply the rule intelligently to specific circumstances.                                                                            |  |

B.3.4 The Code as drafted does what is necessary to **interpret and illustrate the starboard hand rule**. It is there for clubs and, through them, their members to read, discuss and understand. There is enough detail for the challenging locations, including Hammersmith. Of course, clubs need to take steps to ensure *complete and sustained awareness* of the material available. But TRRC needs to lead the way

in ensuring that there is *no culture of over-compliance* (whether through misleading advice from its officers and agents or through misplaced fear of being penalized by the Conduct Panel for an infraction).

B.3.5 It is possible to undertake a safe transit of Hammersmith within the existing arrangements – see Figure B.3A to .3E.

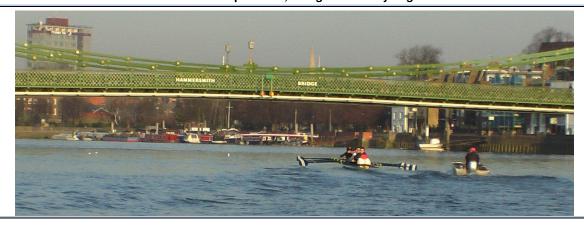
Figure B.3: A FLOOD TIDE TRANSIT OF HAMMERSMITH BRIDGE, 2008



B.3A Passing Riverside pier: The QBC M8+ and tin-fish are on starboard station in the fairway, well clear of the pier, and at the start of the Hammersmith bend



B.3B Queen wharf. The M8+has made a part-turn, along the fairway edge.



B.3C Lining up the passage of the bridge. Dove pier is clearly visible beyond the bridge.



B.3D "Under the name of the bridge": clear of the Hammersmith foreshore; pointing past Dove pier.



**B.3E** Passing Dove pier (by a safe margin)

Photos: Neil Jackson from launch provided by Chas Newens Marine

### B.4 Requirements (2), being overtaken, and (3), leaving room for Class V MVs

- B.4.1 The NW8+, under direction from its coach, moved to starboard expressly to **facilitate the Class V's overtaking manoeuvre**. That was *not* required of them by the Code because the Class V had sufficient "sea-room" when that high on the tide down-river from Hammersmith see Figure 3. The Code required them only to maintain course and speed while being overtaken. *The NW8+ and accompanying coach boat were NOT obliged by the Code to row on in the Middlesex IZ as they did.*
- B.4.2 There *are* occasions when other vessels *do* have to take "early and clear action to avoid and be seen to **avoid [a Class V]**". The language of the Tideway Rowing Code on the issue is imperative. It does not go on to spell out how differently a steerer might apply this rule. It must always be a matter of judgement as to the appropriate scale, timing and duration of the necessary manoeuvre under such different circumstances as:

- \* near HW on a wide part of the river so there is plenty of water available to the master of the Class V, both laterally and under his keel; or
- close to LW, in a narrow reach, or
- \* when heading along the IZ on an opposite course to a Class V.
- B.4.3 **Concern for another river user** is legitimate, welcome, and in conformity with the WSC. But it needs to be applied with thought. It does not require rowers to stand into danger. There is a limit to the number of circumstances that the Tideway Rowing Code should cover in relation to any one rule. Training should ensure that Code compliance and good conduct do not have to lead vessels into the problems which emerged next.

### B.5 Requirement (8), the Hammersmith RZ prohibitions

- B.5.1 The decision for the NW8+ **to row on through the bridge** (rather than stop to let the Class V overtake) was *not*, according to the coach, influenced by the innovation of an RZ in the fairway at the bridge, including its proscription on stopping. In any event, as discussed next, the rules allow steerers discretion to do the safer thing even if there is conflict with other provisions such as this one. *This innovative Code requirement therefore does NOT seem to have contributed directly to the incident.*
- B.5.2 Figure B.1A shows, however, that there is no easy answer to some **rowers' incompetence or ignorance** the new fairway/IZ boundary marker and the clear rules (here pictured *after two years' operation* of the Hammersmith the RZ prohibition PLUS the starboard hand rule) could not prevent gross misbehaviour by one steerer. The M4- is on port station and the tin-fish is in danger of running aground!
- B.6 Requirements (4), risk of head-on collision, (5), do the safest thing, and (6) crossing the fairway to certain rowing clubs.
- (a) Clubs boating from the 'wrong shore'
- B.6.1 The **presence of the FSC M1x off the Hammersmith foreshore** faced the NW8+ cox with a difficult choice. She was out of the fairway, facing an on-coming rower. In other circumstances, stopping to let him pass port-to-port was Rule-compliant and probably would have been the least-worst option from a safety point of view. (Shouting at him to stop in time to allow the NW8+ out across his bows did not work.) To that extent, the Rules discussed so far did nothing to alleviate the gathering problem of the tide-driven drift of the NW8+ towards the pier.
- B.6.2 That kind of conflict can arise wherever **crews boat from the 'wrong shore'** and cannot directly access "the slacks" when leaving or returning to their club's raft or hard. They have
  - (a) to cross the whole fairway, or to turn into or out of the appropriate station within it, in order
  - (b) to reach their rafts or hards moving against the tide, whichever way it is flowing, but thereby, on the flood tide.
  - (c) to move in the opposite direction to vessels following the adjacent starboard edge of the fairway.

In doing so, they must conform with the long-established provisions for crossing the fairway to get to such locations, *viz*:

"Rowing Boats and Escorting Vessels are allowed to cross the river at other places, apart from where it is specifically not allowed (i.e. the Restricted Zones), when boating from or returning to boat houses, provided that they shall do so as quickly as possible and *avoid obstructing any other vessel proceeding along the Navigation Channel.*" - Code section 2.5, final indent, page 23, [Our emphasis].

B.6.3 Without evidence from the person concerned, it is possible to conclude only that **in principle the M1x manoeuvre was ill-judged or –executed**. As such, it was in conflict with the Code. His actions finally reduced to vanishing point the space in which the NW8+ might possibly have manoeuvred away from Dove pier. The clear lesson is that all clubs in the locations mentioned must take steps to ensure compliance with the Code requirements on the part of all users of their rafts or hards. But it was NOT the Code provision which was at fault.

- (b) Managing access to the 'wrong shore'
- B.6.4 That underlying pattern of conflicting movements arises at the **four groups of boathouses on the Middlesex shore** listed in Table B.5 either below Chiswick pier or above the Ship Inn at Mortlake. (They are identified in terms of the main resident club of each boathouse, but the problem and proposed remedy apply, of course, to their respective associated clubs, if any, whether linked, tenant, guest or visiting.)

|     | Table B.5: FOUR GROUPS OF 'WRONG SHORE' BOATHOUSES |                                                                                                |  |  |
|-----|----------------------------------------------------|------------------------------------------------------------------------------------------------|--|--|
| No. | Location                                           | Clubs                                                                                          |  |  |
| (1) | Hammersmith foreshore                              | ARA; AKN; FSC (but the Hammersmith Junior Rowing Centre will, in due course, have an interest) |  |  |
| (2) | Upper Mall, Hammersmith                            | LTU; SON.                                                                                      |  |  |
| (3) | Chiswick bridge                                    | TSS; WMN; QBC; MAA (but PTR across the river have an interest)                                 |  |  |
| (4) | University of London<br>Boathouse                  | University, college and hospital rowing clubs.                                                 |  |  |

- B.6.5 Clubs at Hammersmith have informally identified **landmarks on the Surrey shore** to indicate to steerers where to cross. And they warn their steerers to pause there until they are able to cross without hindering other vessels in the fairway. Equally, however, they must be able to rely on other vessels coming up-river through the bridge on starboard station (including, of course, rowers on the flood) leaving them room to turn onto, and to move against the tide along the Hammersmith foreshore. The normal line from the bridge to Dove pier shown in the Code does provide for exactly that, *if* passing steerers use it.
- B.6.6 TSS and MAA have discussed a similar informal, local agreement to self-regulate the movement of rowers along the Middlesex shore **up-river from 'The Ship crossing'**, past the Chiswick bridge RZ and through that arch of the bridge.
- B.6.7 **Crossing at ULBH** below the Kew rail bridge RZ is a major topic each year when each new batch of student steerers has to be indoctrinated with the mysteries of the Tideway. The subject also figures prominently in the safety documentation for the competitions organized by ULBC and United Hospitals BC.
- B.6.8 Those **local crossing arrangements** are good, responsible club initiatives. Their effectiveness would probably be enhanced for their own members and visitors if both formalised and made known to the other Tideway rowers. That would be too detailed a matter for inclusion in the already substantial Code. Perhaps the best way forward would be for the lead clubs in each location as specified in Table B.5 to agree a protocol for their location, adopt it, and pass it to TRRC for adding to its web-site.

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ANNEX C: APPOINTING THE "MASTER OF THE VESSEL"

"... the cox or in the case of a coxless vessel the steersperson is deemed to be the master of the vessel ... who [may be] guilty of an offence and liable to a fine.

Tideway Rowing Code Section 4.1, page 39

C.1 "Master of the vessel"

C.1.1 Adoption of the Tideway Rowing Code has raised awareness among rowers that **the steerer is** *always* **master of the vessel** for all legal purposes, even if he or she is young, inexperienced, or a one-off stand-in, perhaps in an emergency. That understanding is not yet complete – young scullers in 'play-boats' on the Tideway sometimes seem to behave and to be treated as if they were on a municipal boating pool, not an arm of the sea! The Code makes very clear the high level of *personal* responsibility involved:

"In the context of the PLA regulations the cox or in the case of a coxless vessel the steersperson is deemed to be the master of the vessel ... who [may be liable to be found] guilty of an offence and liable to a fine. Bearing this in mind coaches and those in loco parentis of Junior coxswains and steerspersons should use this fact in risk assessments when determining the suitability of those underage to act as master of vessels with respect to their knowledge of and ability to adhere to the navigation regulations and this Code."

C.1.2 There was **nothing new in that emphasis on the steerer's role**. The ARA's national WSC has made its importance and breadth clear to clubs for many years – Table C.1.

Table C.1: THE ARA WATER SAFETY CODE ON "STEERSMEN"

- "2.5.3 Steersmen, women and coxswains (collectively referred to as "steersmen").
- "2.5.3.1 Any person steering a boat is responsible for the crew in their charge. Steering a boat is a highly responsible role. Steersmen must:
 - * Maintain a proper look-out by sight and hearing so as to make a full appraisal of the situation and the risk of collision.
 - * Learn and use simple and concise commands for boat control both on and off the water. Be able to use them correctly clearly and instructively.
 - * Understand and observe local navigation rules, and audible and visual signals given by others with whom the waters in shared.
 - * When visiting unfamiliar water, take particular care to learn of local hazards, weather peculiarities, and local rules of navigation.
 - * Be conversant with safety and rescue arrangements available in the case of accident.
 - * Recognise and respect the rights and needs of other water users, especially anglers.
 - * Watch out for swimmers at all times and be alert to unexpected floating objects.
 - * Know and have practised accident and man overboard drills."

ARA WSC Page 11

C.1.3 **Crew selection** has to recognize the steerer's onerous legal responsibility as "master". Whenever or wherever a member takes on that role, their appointment has to be undertaken thoughtfully and seriously by the club. Their decisions not only carry the personal exposure to criminal

or civil liability, but also affect the safety of their fellow crew members (unless in a 1x), of their boat, and of other river users. Selectors must ensure that every steerer has the knowledge, training, and maturity to take on those responsibilities in the light of the conditions and the abilities/experience of the crew members, together with appropriate supervision for as long as it is needed.

- C.1.4 The **form and content of an outing** must fit the steerer's competence see, for example, our comments in B.2.5 above about the difficult decisions and complex considerations which faced the inexperienced NW8+ cox. The preparation for, and content of, each outing must be adapted to fit both the limitations of the steerer and those of the crew responding to his or her commands. Decisions on what to do during an outing or where to do it have to be based on *the steerer's view* of what he or she can or should do on the day. It is quite practicable to have a worthwhile outing for a crew like the NW8+ in the 2km between the ends of the RZs at Putney and Hammersmith bridges, avoiding the problems at both of those bridges. Clubs should educate both coaches and steerers on this component of 'choreographing' the detail of an outing so that a steerer is not exposed to having to make decisions or take courses of action too far beyond their abilities, competencies or experience.
- C.1.5 There has to be **recognition by crew and coach of the authority a steerer needs** to match his or her responsibilities as "master". That process must begin at the pre-outing RA when the steerer's voice has to be given special weight. Once afloat, some decisions and commands concerning the navigation of the TRC NW8+ came from within the tin-fish. That is normal practice, especially when the steerer is still learning the skills involved. But, even with a highly experienced steerer, that carries some risk of uncertainty, confusion, delay or even conflict within the crew over whose decision or command is to be implemented. It has to be good practice for every coach to lay down to crew, steerer and him- or her-self how the command and control of the manoeuvres during all or specific parts of the outing are to be managed. That should include contingent provision for what to do when voice communication between coach and boat is impaired or lost.

C.2 Certifying basic steerer competence

(a) Development and licensing

- C.2.1 The best training for a steerer is **informed experience**. Leaving aside the technical process of steering, the complexity and gravity of a steerer's decision-making task are such that 'learning on the job' is a large and proper part of training. Each individual builds a library of experiences from meeting and dealing with each of the varied and sometimes complex challenges which arise during an outing. It then becomes easier to handle each of them next time it happens. Supervision on the water is, of course, needed to minimize the risks attaching to that learning process. Post-outing de-briefing is also essential to develop an understanding of what went right or wrong in a particular situation.
- C.2.2 From the outset of the new regime, TRRC committed itself to adding **a scheme of Tideway cox licensing**. Supervision has to come to an end somewhere. There has to be a key point in an individual's progress along the learning curve, where he or she can go on learning *safely unsupervised*. As when motorists step up from a provisional driving licence by way of a theoretical and practical competence test, the TRRC goal is to put in place systems for establishing that a steerer has achieved a minimum safe and competent standard for taking on unsupervised the legal and personal responsibilities of being "master of the vessel" on the water. In that sense, and given the recent growth in small-boat rowing, any system will need to apply to *all* steerers not just coxswains (as the involvement of an M1x in the Dove pier incident shows only too sharply).
- C.2.3 At national level, the ARA is **moving in that direction on cox development**. The ARA would provide for a "Level 1 Coxing [qualification] ... designed to be run and assessed within an ARA-affiliated rowing club". That is to be followed by a more advanced ARA-assessed and –awarded Level 2 qualification. The draft Level 1 scheme envisages a club teaching and testing the competencies listed in Table C.2.

| | Table C.2: DRAFT ARA LEVEL 1 COXING COMPETENCIES (As at Nov 2007) |
|----|---|
| 1. | In general |
| | Maintains the safety of the crew, themselves and others |
| | Is enthusiastic, encouraging and motivating |
| | Is a respected crew member |
| | Is a positive influence on crew members during training outings |
| | Earns the respect and trust of the crew |
| 2 | Checking equipment and clothing |
| | Correctly identifies and names the main parts of a boat |
| | Identifies different boat types and seat positions and groups within a crew |
| | Correctly calls strokeside/ bowside/ port/ starboard |
| | Checks the equipment to be used in the outing |
| | Wears the appropriate clothing for the conditions |
| | .Checks that the crew members are wearing appropriate [clothing for the conditions] |
| | Wears and fastens correctly the buoyancy aid or lifejacket |
| 3. | Safety |
| | Contributes to risk assessment of the conditions with a coach |
| | Specifies the changes in conditions that could cause an outing to be terminated |
| | Identifies local hazards on and off the water |
| | Recognizes and respects the rights and needs of other water users |
| | Demonstrates a sound understanding of local regulations and circulation patterns |
| | Specifies the correct action to take in the event of accidents |
| | Maintains an awareness of other water users at all times |
| | Takes appropriate action to avoid annoyance or potential collisions |
| | Obeys local traffic regulations when coxing, and avoids hazards |
| | Sets up a cox box, stores it away and manages the re-charging |
| 4 | Commands and steering |
| | Commands the safe movement of boat and blades from the boathouse to the water |
| | Specifies the reasons for boating and landi9ng ion the right direction |
| | Commands the crew to enter and exit the boat in a safe and orderly manner |
| | Follows the plan for the outing |
| | Steers the boat safely into the landing |
| | Maintains an awareness of other water users close to and in the distance |
| | Steers the boat mainly using the rudder when the blades are in the water |
| | Maintains a good course during an outing |
| | Can cox from a bow-loader and is aware of the different demands |
| | Commands spinning the boat using the current or wind |
| | Commands backing the boat down |
| | Manoeuvres the boat safely by commanding different members of the crew to row |
| | Gives commands in an appropriate manner |
| | Identifies common faults in rowing during the outing |
| | Provides feedback to the crew and coach at appropriate points in the outing |
| | Seeks feedback from the crew and coach on his/her performance |

 $\hbox{C.2.4} \quad \hbox{The assessor would classify a ${\bf candidate \ coxswain}$ on each of those competencies at one of five grades $-$ Table C.3.}$

| Table C.3: ARA COX PERFORMANCE GRADINGS | | |
|---|--|--|
| Grade | Interpretation | |
| (1) | Very basic – needs much improvement | |
| (2) | Minimum competence achieved ('pass level') | |
| (3) | Satisfactory level of competence | |
| (4) | Good level achieved | |
| (5) | Outstandingly good | |

- C.2.5 The ARA proposals make a **basis for assessing** *all* **steerers** *and* **their supervisors**. Of course there would have to be changes to assess the suitability of someone for specific activities. The requirements for taking out a single-scull alone are not the same as for being a coach supervising crews with fully certified and experienced steerers. And, operationally, any standard would need to be interpreted in relation to the experience of the crew and its ability to respond effectively, efficiently and timeously to what the steerer wants.
- C.2.6 At the time of writing this report, there is a **co-ordination issue**. TRRC has tried to keep in step with the national scheme. But both the new regime and the Dove pier incident among other matters have made progress on the Tideway more urgent. At its meeting in November 2007, however, the ARA National Council instructed its national water safety and coach education committees to press on urgently with preparing guidance for assessing coxswains and trialling it in regions; whereupon TRRC volunteered to participate in trials on the Tideway. *Our remaining points must be read as inputs to the operation of, and partly contingent upon the outcome of, the still-to-be implemented Tideway trials.*
- C.2.7 What we envisage here would be a more narrowly specified **certification of suitability to gain unsupervised experience safely**. It should be designed as a first step along a unified pathway towards the eventual national Level 1 and Level 2 qualifications. To that end, it should encompass only a selection of the content of the latter. A club should set the same performance standards for the selected competencies. It should then be easy for an individual to continue along the pathway to Level 1 or beyond, if that is where he or she chooses to go, by building on the proposed certification without duplication or wasted efforts.

(b) Trust, audit or enforcement?

C.2.8 Like the national Level 1 proposals, a **Tideway certification scheme would be clubimplemented**. But that raises problems of ensuring consistency between clubs of scope, standards and application. Many Tideway clubs already have schemes of some kind. Our discussions identified seven issues which TRRC will need to resolve with its clubs if even the best-motivated of them are to make it work – Table C.4. *Those matters could be a framework for assessing the forthcoming trials.*

| Table C.4 | Table C.4: IMPLEMENTATION ISSUES IN STEERER CERTIFICATION | | |
|------------------|---|--|--|
| Issue Discussion | | | |
| Curriculum | Minimum requirements would have to be set centrally, not by each club. Otherwise there would be a risk or a suspicion of some clubs adopting an inadequate approach. | | |
| Verification | Each club's approval <i>process</i> would need to be open to independent inspection to rule out superficial assessments or low pass standards. (That does <i>not</i> necessarily run to the secondary approval of each successful candidate.) | | |
| Breadth | Different combinations of skills are needed in steering coxed, coxless or single scull boats. Some clubs license individuals for only selected boat types (just as driving licences are qualified by type of vehicle or for automatic gearboxes). | | |

| Monitoring and review | Each individual's performance should be reviewed by a club to ensure that he or she continues to maintain standards and keeps up to date with changes. That, in turn, implies scope for withdrawal or limitation of accreditation. |
|-----------------------|--|
| Record | Individuals, clubs or the ARA (via OARA) ought to have a record of each individual's accreditation, especially if an award is limited in some way, notably in terms of which type(s) of boat he or she may cox or steer, or subsequently amended or withdrawn. |
| Transferability | Individuals move between clubs; should their steerer licence transfer, too? Clubs may want power to test a new member recruited from a club where he or she was already licensed. They may wish to check with the previous club whether or not accreditation had been granted, qualified or withdrawn. |
| Recognition | The demands of river, tidal, lake/trench, canal and coastal waters are different (leaving aside specific local rules and hazards). Tideway clubs and competitions in particular would need a policy on recognizing a licence earned on other waters or in other ARA regions (let alone in other jurisdictions). |
| Enforcement | Compliance of each club would emerge from TRRC's developing club safety auditing systems. Individuals could be held to account in the follow-up to a reported incidents by their club being asked for their licensed status. And competition organizers could require clubs to enter only appropriately licensed steerers. |

- C.2.9 The new regime has led TRRC to examine the general issue of **ensuring club compliance with safety standards**. That has hitherto been taken on <u>trust</u>, expecting each club to live up to the ARA code and tackling back-sliders on an exceptions basis when evidence points to a significant likelihood of failure. Now TRRC has not only introduced the Conduct Panel dealing with individual reported misdemeanours but also moved on (in 2008) to adding a broader system of safety <u>auditing by way of peer review</u> (in which each club would have its systems and practices independently reviewed by a colleague from another club). *Auditing a club's steerer-accreditation policy, practices and records would fit naturally into that process*.
- C.2.10 Clubs could open their accreditation *processes* and standards to **external verification** by an independent and expert 'inspector' invited in from another club. Note the emphasis on "processes". What is envisaged here is inspecting the form, content, application and standards of a club's scheme. It is not a matter of the 'inspector' testing each individual; that must be for the club itself. (That would not preclude an inspector from sitting in on an approval test as one way of verifying the club's activities.)
- C.2.11 The **normal scope of existing Tideway schemes** appears to include only individuals who wish to steer or scull *club* boats. That approach is too narrow; it omits the types of people listed in Table C.5. *Clubs need to develop their schemes to deal include all individuals in such categories.*

| Table C.5: STEERERS NEEDING CERTIFICATES | | |
|--|---|--|
| Class | Comments | |
| Privateer scullers | Almost every senior club has an important minority who own their own 1x boats and go on the water outwith any organized squad or outings and do not use club boats. | |
| Steering for a one-
off outing | Coaches may require individuals who would never otherwise be steerers to take the role, notably when seat-racing. | |
| 'Anyone who will agree to do it' | Crews sometimes choose one of their number, whether licensed or not, just in order to get an outing ("now that we're all down here"). | |
| Coach supervising a trainee-steerer | A coach should be adequately qualified before being allowed to instruct someone learning this skill. | |

- C.2.12 Ideally, clubs would make **their schemes self-policing**. There is a lot of self-interest for clubs to set high standards for their members here by way of reducing the risks of:
 - * injury to crew members;
 - * damage to boats and blades;
 - * insurance claims; or

- * adverse adjudications by the Conduct Panel.
- But experience with implementing boat ID shows that some clubs (or individuals within them) would comply more readily than others. If amendment or loss of accreditation was part of a scheme, it would be difficult to add it to an individual's OARA. TRRC should require the Region's clubs to maintain a register of their licensed steerers (as they do for their boat IDs), open to inspection by the Divisional Representative or the RWSA or his authorised surrogate. Organizers of competitions in Thames Region could require each club to certify that every steerer among their entrants was properly licensed. Such a *TRRC* imposition might be unwelcome in other ARA Regions whose clubs race on the Thames; but these matters must be considered in the course of the proposed trials.
- C.2.13 The **resource burdens of implementing general licensing** would, on the evidence of existing schemes, not be excessive. They should anyway fall within the burdens already carried by the responsibly and prudently run clubs which have implemented the spirit and the letter of the ARA WSC and understood the implications of the PLA/TRRC November 2006 letter. What we have in mind demands more by way of the will and the incentives for the weaker clubs to catch up with the best, rather than new impositions on the sport at large.

C.3 Tideway navigation

- (a) Meeting the local challenges
- C.3.1 The really difficult part begins when considering how any scheme of *general* licensing could economically and effectively encompass the **Tideway's** *local* **navigation rules and hazards** (as it *MUST* do see the ARA points in Tables C.1 and C.2). The Tideway offers more challenges to steerers than most other rowing venues Table C.6. The examination above of the factors in the Dove pier incident shows how many of those came into play at Hammersmith on that day, as they do on every Tideway outing see section B.2. *They will have to be addressed by any regional scheme or the proposed national trials.*

| Та | Table C.6: LOCAL CHALLENGES OF TIDEWAY STEERING | | |
|------------------------------|---|--|--|
| Subject | Description | | |
| A complex navigation | On ordinary days, rowers may be seen on outings anywhere over more than 17km between Battersea and Richmond barrier (and, on either side of HW, the further 6km to Teddington weir normally exclusive to Twickenham-based clubs). That involves a winding, largely urban and once-industrial river which is also an arm of the sea. | | |
| Multiple
hazards | Many locations with one or more of: bridges and their supports; islands; shoals; mooring buoys, moored boats and house-boats; and piers, pontoons, slipways, staithes, piles and wharfs, some in derelict condition. | | |
| More
rowing
crews | The exceptional concentration of rowing clubs between Kew bridge and Putney bridge means that many more crews are likely to be about at any time, especially at weekends. | | |
| More non-
local
rowers | With the exception of Henley in June/July, the Tideway has more visiting crews at any time of the year. Those visitors are normally less familiar with the local challenges. | | |
| More users | As a navigation open to the sea and to all users, the latter normally include canoes, sailing boats, out-riggers, narrow boats and MVs from the smallest tinfish or RIB to the Class Vs. | | |
| Higher
speeds | The tide can run at up to 4kt (~7 km/hr). The speed limit is 8kt (~14 km/hr). | | |

C.3.2 Those challenges, plus the vagaries of the wind and waves, are part of the special attraction of racing over the 7km of "the Championship course" between Putney and Chiswick bridges. They attract crews from all over ARA Regions and beyond to take part in the national-level processional races on the Championship course (Pairs head; Fullers Fours head; Veteran Fours head; Scullers' head;

Women's head; Schools' head; Tideway head; Veterans' head). In addition, such visitors come not only to prepare for those but also to train when their own waters are unavailable. Unsupervised steerers in all such crews must master the specific Tideway challenges for their own safety, for that of other users, and for the good reputation of the sport as whole. That that message needs to be repeated year-after-year has been shown year after year during the work of TRRC's "Tideway experts afloat". Tideway host clubs widely and generously *volunteer* advice and explanations for visiting steerers – Figure C.1. The onus *must* remain with the visitors' clubs to take all reasonable steps to bring their unsupervised steerers up to a safe standard; as part of their duty of care towards their members and to other Tideway users. The Tideway is no place for the inadequately prepared or the unsupervised to train, let alone to race. Again the terms of the proposed trials, both on and off the Tideway, will have to be scoped to include the issue of 'Tideway-for-off-Tideway-steerers'.

Figure C.1: ASSISTING A VISITING STEERER, FOURS HEAD 2006

Dave Gledhill, cox of Barnes Bridge Ladies RC W4+, briefing the coxswain of a visiting crew using the 2005 Cygnet RC Tideway navigation and hazards map displayed for the purpose outside the Civil Service boathouse.

Photo: Neil Jackson. Map drawn and prepared by Neil Pickford, Cygnet RC

C.3.3 A Tideway club must include in its steerer accreditation process **knowledge of the Tideway** waters and navigation rules, comprising the elements in Table C.7:

| Table C.7: ELEMENTS OF A TIDEWAY TEST | | |
|---|---|--|
| Element | Comments | |
| The provisions of the Tideway Rowing Code | Many clubs apply a written test of candidate-steerers' knowledge like the Driving Theory Test | |
| Knowing the home waters | Being shown over the waters regularly used by the club, including the Championship course and its immediate approaches, and tested about the danger points and constraints | |
| Experience of steering the major hazards | Building supervised (preferably logged) experience of steering the major hazards and the places with special navigation requirements (IZs; RZs; crossings) under a representative range of circumstances. | |

Whilst all should know the Championship course, clubs from UL boathouse would give higher priority to their steerers navigating up to and beyond Isleworth Ait, while Putney clubs would be more interested in their steerers knowing the Wandsworth reach. The external verification and safety audit processes discussed above should be flexible enough in that respect to ensure effective compliance (without attempting to impose on every newly qualified steerer a straightjacket of total Tideway knowledge comparable with, say, the London taxi drivers model!).

(b) Going beyond trust or audit to enforcement

- C.3.4 Taking the step to a formal and enforceable requirement for a Tideway endorsement for licensed steerers would have to be justified by the scale of the problem to be put right by it. The PLA and TRRC consider that, since October 2006, the general compliance of the rowing community with the provisions of the Tideway Rowing Code has improved. The achieved level is not yet acceptable. There is a need to bring the standards of all clubs up to those of the best. And the issue needs sustained attention, given the entry/turnover of coxes and scullers in the sport. But initiatives led by TRRC, the Tideway competition organizers and the Conduct Panel are moving things in the right direction.
- C.3.5 **Enforcement through the 'competition-entry method'** discussed above would work. But it would principally exclude from Tideway competitions any individual entrant unable to visit the Tideway to qualify before the entry form had to be submitted. We consider that that is neither justified by the level of visitors' incidents or misdemeanours Dove pier involved a Tideway club! nor compatible with the spirit of our sport. On the other hand, Tideway clubs are entitled to expect visiting clubs from upriver and other Regions to use their best endeavours to bring their steerers up to a safe standard. Punitive enforcement against visiting clubs based in other Regions is not for TRRC. In recognition of that, TRRC has invited other ARA Regions to establish systems to applying to the clubs of visiting crews which breach the Tideway Rowing Code sanctions equivalent to those which apply locally under the TRRC Conduct Panel and enforcement procedure.
- C.3.6 It is **our judgement** that, unless there is a marked deterioration in compliance, or external factors (such as rowing club insurance premiums or the report of the enquiry into rowing safety by the Royal Society for the Prevention of Accidents) shift the balance, the human and organizational resources needed for a formalized Tideway endorsement are not YET justified by the enhanced compliance likely to flow from it. That said, there must be no let-up in informal work with visiting clubs and crews, and the forthcoming trials will need to consider:
 - (a) whether to indemnify helpful clubs against vicarious liability for misdemeanours by steerers from other clubs whom they have helped to train; and
 - (b) how reciprocal arrangements will work on other waters.

C.4 The pivotal role of coaches

(a) Coach as supervisor

- C.4.1 Anyone can take up **rowing coaching without prior steering experience**. That means they may not understand some or all of the constraints or priorities of a steerer under their care. That includes the apparently simple act of steering itself where the steerer does not 'aim and point' but has to integrate how quickly that particular boat responds to any rudder movement or blade pressure, the degree and duration of that response, and the effects of wind or stream pressures on the crew/hull combination. A coach giving an order or delaying a warning without understanding those factors may stand their crew into danger. That is on top of a coach having to understand the constraints for the steerer as master and the need for clear lines of command and control to the crew. Without adequate awareness of the steerer's context, a coach will not allow for, or assist in, a steerer making decisions and translating them into timely and legal manoeuvres and appropriate instructions to the crew. He or she will moreover be wholly unsuited to supervising a steerer who is still 'learning the trade'.
- C.4.2 A **coach's skills kit** needs to include a substantial component on steerer management, supervision and development before being allowed to take any crew onto the water. Those are outlined in Table C.8.

| Table C.8: A COACH'S 'STEERER AWARENESS' | | |
|--|---|--|
| Topic | Content | |
| The "master" | The steerer's personal and legal responsibilities as "master of the craft"; and the relevant competencies | |
| Supporting the steerer | Enabling the steerer's role in the pre-outing risk assessment (especially if it points to curtailing or abandoning the outing). Choreographing the outing to fit the steerer's competencies, priorities and concerns. | |
| Communication, command and control | Best practice in ensuring that the crew know who is in charge, and getting the right messages from , through or past the steerer. | |
| Practicalities of steering | Understanding steering realities. If that is insufficient, practical training under supervision in steering a 4x/4- through some demanding hazards, equivalent to a transit of, say, the Kew RZs. | |

- C.4.3 Whilst formal coach training can tackle the development of such 'steerer-awareness', it will not, by definition, touch the very many **coaches without formal qualifications**. The sport cannot afford to lose their crucial voluntary input. But clubs must look out for situations where a combination of unskilled coach *plus* inexperienced steerer *plus* inexperienced crew raises the risk of a serious incident to an intolerable level. (That would be true even before boating on any part of the Tideway or similarly challenging waters.) The ARA is responsible for seeing that managing, supervising and training steerers *are* included in formal coach-training programmes. Clubs can ensure that their paid coaches are contracted to achieve such standards. But each club has to be aware of the capabilities in those areas of each of its qualified *or unqualified* coaches and training and deploying them appropriately.
- C.4.4 In practice, **steerer-supervision is done by more than just the "coaches"**. Crews may rightly be selected so that one or more members have the experience and knowledge to be entrusted with 'mentoring' a learner-steerer on the water. In a pod of single scullers, the more experienced ones will often help the learners. That is a valuable part of the self-help ethos of our sport. But it still has to be done well, without undue risk. A prudent club will make looking after its steerers, and their coaches, mentors and helpers an active priority, backed up, of course, by monitoring how far each contributes to safe and efficient outings.
- C.4.5 It is arguable that **coaches and launch drivers need the same knowledge of their home waters** outlined in Table C.7 for steerer accreditation. *Any club would be hard-pressed to justify authorizing a coach to exert navigating authority over a more qualified individual, let alone to supervise a steerer acquiring the necessary knowledge and experience.*

(b) The coach as leader of an outing

- C.4 6 It is for a **coach to plan an outing**, and to expect to make reasonable adjustments to the plan once on the water in response to conditions, traffic, or the progress of the rowers. The outing's objectives of crew development or race preparation and its content, location and boat type must not compromise the steerer's responsibilities and achieved competencies. Within-outing decisions have got to fit around those constraints, too. Coaches must be ready to turn back or to limit exercises or pieces in the light of the pressures of circumstances on the steerer. (It is better to abandon a piece rather than ask a steerer to overtake through an RZ or to weave through traffic past a hazard.)
- C.4.7 It should also fall to a coach to **respect the outcome of the crew's RAs**. A coach must ensure that the RAs are carried out and in a proper and informed manner. Only then can an outing plan be implemented with any adjustments needed to meet the crew's concerns. Coaches are powerful figures in our competition-focused sport. They are respected by their charges, not least out of unconditional gratitude for their investment of their normally unpaid time and attention to the crew. Their views can be the most powerful influence over RAs and choices. They carry immense if not decisive influence over the choice of personnel. A steerer who gives due priority to being master of the vessel over a coach's wishes, or a crew member who takes the same view, should be supported not de-selected. Clubs need

to monitor their coaches' relations with steerers and crews to prevent such distortions from building to an unsafe pattern of behaviour.

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### ANNEX D: A RISK-CENTRED APPROACH TO SAFE ROWING

"You were the coach ... but you did not carry out a "structured" risk assessment in accordance with the ARA Water Safety Code 2.5.4.2.

D Foster, Deputy Harbourmaster (Upper)

### D.1 Safety, risks and going rowing

- D.1.1 **Safety is a constraint**. It can feel like an obstacle to the immediate business of the rowing day. Club management must therefore get safety high up the *everyday* priorities of its coaches and members, and always included in the decision-making before during or after any outing through:
  - \* The club designing an effective RA process for its crews, informing it day-to-day, and monitoring compliance.
  - \* The crew pausing for its members to do their on-the-day RA before the outing starts.
  - \* The coach or crew tailoring an outing to minimize the risks whether intrinsic to the crew and its steerer, or external to it, arising from conditions on the day.

All of those conflict with getting on the water, managing the time available, pursuing competitive ambitions, and fulfilling our outstanding volunteer, self-actuating ethic. But we have to do it in our own personal and collective best interests.

- D.1.2 Safety considerations can get left behind in the **day-to-day pressures** of operating a club. There are never enough coaches or coxes. The smallest person often ends up in the steerer's seat by default, not suitability. A coach trying to do seat-racing in small boats may invite inadequate steerers to take charge of some trial combinations without having had or made time to test or train them for the role. Members (rightly) expect to get on the water. Retaining coaches, coxes and members generates a temptation for club captains and management to go easy on those who lack the experience, training, aptitude or a sufficient knowledge of the requirements and hazards along the river (whether the Tideway or elsewhere) to do it safely. There is always the temptation to go on the water whatever the deficiencies of the steerer. And, even within an outing, delivering the content of a particular piece can over-ride prudence, especially in a club or squad or crew with a particularly strong competitive culture. Only if each club's culture positively embraces safety, will the choices made by its members, crews and coaches give risk-minimization a priority before and during every outing.
- D.1.3 We endorse the view of the PLA that the **Dove pier incident arose from the crystallization of a series of risks**. There is no *guarantee* that a prior assessment of those risks for the TRC NW8+ then or for any other crew in the future, would prevent such an incident. But where the potential outcomes include death by drowning, active risk-management identifying potential hazards; weighing up their probability and severity; and taking mitigating measures is the only acceptable approach.

# D.2 Minimizing risk factors

- (a) Crew risks: Selection
- D.2.1 The **intrinsic risk factors** for the NW8+ are common ones. As described in section 4 of our report, the outing brought together a *relatively* high combination of inexperienced or unqualified crew, steerer and coaching team. Clubs and coaches have to recognize where such a combination is at risk of a failure of some kind and take appropriate remedial action.
- D.2.2 **Inexperienced combinations** are more likely if there is an exclusive squad structure or mindset in a club. Understandably, a 'top crew' demands a 'top steerer' in order to do themselves justice in training (and *vice versa*!). In order to be able to concentrate on the crew, a 'top squad coach' needs a good steerer in the boat. It can also be unfair on a learner-steerer to bear the extra responsibility of

serving a top crew or coach unless that is a considered part of his or her development. But those factors have the corollary that learner-level rowers and learner-level steerers can become isolated from the experienced ones and forced to learn their respective trades more riskily together. Preventive measures against that risk can include:

- (a) Placing <u>experienced individuals in crews</u> and nominating them to take responsibility for delivering effective emergency control.
- (b) Placing even their most <u>senior steerers as masters of 'learner crews'</u> from time to time for the greater good of the club as a whole.
- (c) Making <u>time for coaches to review the structure, development and safety potential</u> of their respective charges, including the development and training of their steerers (which would fit readily with what we say in Table C.4 about monitoring and review of the performance of licensed steerers).

#### (b) Reporting, education, and discipline

- D.2.3 Coaches *must* take care that their own input to RAs and their decisions within outings **respect the concerns/limitations of rowers and steerer** (and that there is no unfair peer pressure from the crew on the latter). It is a clear responsibility of clubs to prevent coaches and the members entrusted to their care from failing on that count. In recruiting or authorizing a coach, it is in their own interests even part of their duty of care to assess his or her capacity to manage or supervise/train steerers. (Note that that distinction is deliberate training steerers is a valuable coaching skill in its own right, and it should not be left by default to a coach without the capability to do it.)
- D.2.4 No-blame **internal reporting systems** for near-misses or infractions would keep the safety team aware of issues with a coach, a crew or a steerer. A prudent captain and Club Water Safety Adviser (CWSA) will gain from <u>feed-back from steerers</u> on their experience of each coach. And a club might consider appointing a person <u>a steerers' mentor</u> to look after each steerer's interests independently from, and with a powerful voice in the ears of, the captaincy or chief coach.

#### (c) Personal risk management

- D.2.5 The **NW8+ outing was very ordinary** in all respects bar one, the exceptional flood tide then running. The coach-and-driver team had already been on the water twice, and the flood tide was well established so there were no uncertainties over the location or timing of slack water and its effects on rowing navigation rules and there was no lack of breadth or depth of water. The NW8+ outing, therefore went ahead with normal confidence, based on an implied appraisal but without a formal on-the-day personal RA by each crew member. A thorough and formal RA would stand a better chance of limiting the scope of an outing after picking up the risks intrinsic to the crew or along the planned route, of making all parties aware of their limitations and the challenges ahead, and of identifying an extraordinary external risk factor such as the October 7<sup>th</sup> tide.
- D.2.6 The RA process can work only if **all of the athletes understand it**. Induction and subsequent training for all athletes should include what their on-the-day RA is about in general and how it includes their steerer's responsibilities and competencies in particular. It should also spell out their duty to respect and support him or her. In an ideal world, they should all learn the rules, dangers and constraints just like a steerer (though not necessarily be tested on them) to the point where they can identify and discuss the risks and their mitigation, and, in the event of an incident, be a good informed witness.

#### (d) Informing Risk Assessments

D.2.7 **A good RA needs good information**. The extraordinary risk factor on the day for the NW8+ arose from the combination of a flood tide, an extreme tidal range and limited land water flow. Although "extraordinary" it was not at all "unforeseeable". The extreme range had been forecast many months earlier (and appeared as it always does in most quality newspapers on the day). The information about the extreme tidal condition at the time for which the NW8+ outing was scheduled was widely available

well before the 6<sup>th</sup> October. It should therefore have been considered well in advance by *every* club, crew or coach planning to boat on the Tideway that morning.

D.2.8 **The safety team in any club** must anticipate all such out-of- the-ordinary information their crews will need for their RAs, collect it in good time, and place it before them and their coaches with an instruction to include it in their RAs and to adapt or to abandon their outings accordingly. Learning from the Dove pier experience, for example, TRC now requires, in comparable conditions, relatively inexperienced crews or steerers to plan outings which stay below Harrods wharf, in safer waters (akin to skiing nursery slopes, and for that very reason known colloquially in some Tideway circles as "the Playpen"!).

### D.3 Setting the club safety agenda

#### (a) Club's top management

D.3.1 In our view, the first duty of a club's committee (or its equivalent - practices, of course, vary, notably in school, academic or very small clubs) to its members and to the sport as a whole is to give **leadership on water safety issues** to the captain, coaches, CWSA and members. It is no good leaving it to the CWSA. Even in a relatively small club, he or she may become (or just as damagingly <u>feel</u>) isolated from the day-to-day activities of the members as the source of the constraints mentioned at the head of this Annex. The captain, however supportive and aware, rightly has other competing tasks and priorities to attend to. Ours is a volunteer sport and there are only so many hours in each officer's day to devote to any task. In a big club, or one with batches of crews or solo privateers going afloat at 'off-peak' or mid-week times, a CWSA and captain cannot be expected on their own to communicate, monitor and enforce the committee's safety policies on all members.

D.3.2 Members soon sense **where a club's real priorities lie**. They will start to get the right or wrong message from what the committee actually does – Table D.1: The Committee has to get through to the members and coaches the place safety occupies in its definition of "success" so that they can make the process self-policing. But no club, at least on the banks of the Tideway crowded with boathouses, can do that alone. "Club-hopping" is a familiar phenomenon. Some clubs can get a

reputation (deserved or not) for placing the irksome constraints of 'safety' a long way behind winning. corner-cutting or seizing an unfair advantage over the more prudent and careful majority. Individuals who want personal racing success at any cost will gravitate to such clubs. Some members, caricatured to us as long-standing 'privateer' scullers who 'learned all that safety stuff years ago', often seem to be impervious to newer safe practices. Clubs need to work not only inhouse but also with each other to shift the culture of all

| Table D.1: SETTING A CLUB'S SAFETY PRIORITIES |                                                                                                                                                     |  |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Goals                                         | Methods                                                                                                                                             |  |
| Visibility                                    | Ensure safety and navigation documentation and information are prominently displayed and kept up to date                                            |  |
| Selection                                     | Set the criteria for determining what crews, in what combinations can boat and where they can go under which circumstances; monitor implementation. |  |
| Responsibility                                | List those empowered to take selection and boating decisions                                                                                        |  |
| Accountability                                | Log decisions, review them, and openly enforce against manifest failure to comply                                                                   |  |
| Safe boats                                    | Incur the on-costs, if any, of specifying and checking buoyant boats and stable, easily steered coach launches                                      |  |
| Safe equipment                                | Plenty of buoyancy aids, legal lights and light mountings allowing all-round visibility on rowing boats; good dry storage for all of those;         |  |
| Sustainability                                | Plenty of spares - shoes, steering shoes, heel restraints, batteries, bulbs, hatch covers and bow balls; and monitoring and replacement regimes     |  |
| Progression                                   | Training incentives and subsidies (Level 2 coaching qualifications; RYA launch driving)                                                             |  |

participants if our sport is to thrive.

- D.3.3 That, in turn, depends on the availability of **information about individual members' and coaches' behaviour**, and its regular and frequent transmission to the Committee. All clubs should log their outings, their incidents, their boat damage, and in order to provide a as good audit trail in the event of a dispute or worse their decisions (such as forbidding or restricting outings on certain occasions). The results should be seen by the Committee and the general and specific patterns identified, and remedial or preventive measures authorised, minuted and followed-up. Some clubs try to develop an airline-style internal no-blame reporting culture, so that individuals can be helped to improve their conduct before they cause an incident.
- D.3.4 Rowing is a self-help, volunteer sport. Most of us acquire most of our skills and knowledge through practical experience and from each other. Even a well-trained coach or steerer will develop 'on the job' a substantial part of what he or she brings to an outing. But training is still critical to the acquisition and understanding of the technical, theoretical or regulatory knowledge which are significant contributions to safe outings. Committees have many calls on resources. But they should make provision by way of time and money for, and encourage their coaches to undertake, formal training, especially the Level 2 coaching qualification.

# D.4 Sharing the river, sharing the sport, sharing the standards

- D.4.1 For many Tideway clubs, **the arrival of the Conduct Panel** followed by the on-line reporting system has focussed senior management minds wonderfully. Aware of their own exposure when reported on, some clubs are actively using the on-line system. We welcome the action of one club which openly started its 2006 Autumn season by setting "No points from the Panel" as a goal for its racing crews and coaches from top to bottom. Our impression is that the system is slowly gaining acceptance among clubs, particularly as they gain confidence in the peer group process and its priorities (where education and prevention take precedence over condemnation and penalisation). But TRRC can only play its part if it is effectively informed. *The system is only as good as clubs are prepared to make it by making reports through the on-line system, and acting on reports about their own members received from it.*
- D.4.2 The Dove pier incident **did NOT occur as a one-off**. Every incident is, of course, unique in the detail of its own facts. And the Tideway is unusual among rowing venues. But it is not alone in being tidal (with its variable, often fast flows, the occurrence of waves and washes bigger than the freeboard of a racing boat, the acute contrast in width between HW and LW especially at pinch points, and the free access to it of any vessel or its master, whether or not suitable or trained for the purpose). One can meet very similar crews, coaches, and clubs at rowing venues everywhere. In common with all other ARA-affiliated clubs, TRC conducts its water safety operations under the national WSC. *This "tragedy averted" is not simply a matter for TRRC and TRC to sort out under the stewardship of the PLA. The lessons from Dove pier in October 2006 are relevant to every rower, club or Region within the*

ambit of the ARA.

END