

**Appendix B: Torpids Risk Assessment**

*Last up-dated 17/01/11*

Hazard	Risk	Control measures in place	Person(s) responsible	Risk factor
<b>River based</b>				
Collision with another racing boat	Injury to rowers; damage to equipment	<p>OUCS-registered coxes only. Coxes to have attended a pre-event Coxing briefing.</p> <p>Circulation pattern available before the event on OURCs website.</p> <p>Circulation pattern outlined at pre-event Marshals briefing, and repeated at briefings on the day.</p> <p>Adherence to OURCs circulation pattern during river closure enforced by marshals with megaphones and Race Desk via tannoy.</p> <p>Bow balls fitted. Boats checked by marshals.</p> <p>Early concessions and quick wind-downs encouraged during racing. Late concessions and wind-downs fined.</p> <p>Marshals instructed to klaxon a race if the river becomes blocked. All marshals issued with klaxons.</p> <p>Marshal cordon thickened in the higher risk area by the addition of a Donnington Bridge marshal on top of the four marshals in the area already.</p> <p>2, possibly 3, rescue launches available, which can be summoned by radio, which all marshals and race officials carry. Both are equipped with safety bags. Launch drivers RYA Level II qualified.</p> <p>Professional First Aid cover employed with dedicated launch.</p> <p>Emergency vehicle access secured.</p> <p>There will be no use of boats without backstays.</p>	<b>OURCs</b> , Captain, Coach, Boatman, Cox	med

Hazard	Risk	Control measures in place	Person(s) responsible	Risk factor
Collision with river traffic	Injury to rowers; damage to equipment	<p>Pre-event contact made with other river users alerting them to the event.</p> <p>EA notices at neighbouring locks.</p> <p>Signs displayed at the entry points onto the course.</p> <p>Senior Umpire to check river is clear using marshals.</p> <p>Head and Bottom bungline marshals briefed to liaise with river traffic entering the course.</p> <p>Marshals briefed to make sure crews stick to the sides of the river, leaving the centre free. Also briefed not to allow crews to spin in front of cruisers. Equipped with megaphones to hail crews.</p> <p>Holding points exist to moor cruisers up at when a race is about to go off.</p> <p>Coxes briefed to observe the circulation pattern and not to spin in front of cruisers between divisions.</p> <p>EA launch to accompany cruisers on the course when available.</p> <p>Race Desk to instruct crews warming up to stick to the sides when a cruiser is on the course over the tannoy.</p> <p>Launch and medical cover as above.</p>	<b>Senior Umpire, OURCs, Captain, Coach, Cox</b>	low
Immersion	Infection, hypothermia, drowning	<p>All competitors passed British Rowing standard swim test.</p> <p>Marshals instructed to klaxon the race if someone goes in the water. All marshals issued with klaxons.</p> <p>Marshal cordon thickened in the higher risk area by the addition of a Donnington Bridge marshal on top of the four marshals in the area already.</p> <p>Launch and medical cover as above.</p> <p>Blankets available on rescue launches and at boathouses.</p> <p>Rowers educated about river-borne diseases.</p> <p>Coxes to all wear life-jackets and be aware of their inflation procedure.</p>	<b>OURCs, Captain, Coach</b>	low-med
Capsize	Becoming trapped in boat	<p>Crew: Heel restraints fitted. Boats checked by marshals.</p> <p>Coxes: Stern-coxed boats only.</p>	<b>Boatman, OURCs</b>	low

<b>Hazard</b>	<b>Risk</b>	<b>Control measures in place</b>	<b>Person(s) responsible</b>	<b>Risk factor</b>
Over-exertion	Hyperventilation, pulled muscles, cramp, back injury.	Rowers should warm up on land before races and warm down and stretch as appropriate. Coaches and captains to take into account medical history when selecting crews. Rowers should not compete if they feel unwell or are injured.	<b>Coach</b> , Captain, Crew	low
High stream and/or high wind	Being swept onto obstacles, including bridges, bank, debris, or weirs. Swamping.	Modified Isis Flag system to be used (below) – only coxes and crews of appropriate experience to be allowed on the water in adverse conditions. Weather and stream to be monitored and consultation taken with EA. Cancellation if appropriate.	<b>Senior Umpire, OURCs, Coach</b> , Cox, Captain, Crew	low-high, (depending on combination of conditions)
Lightning	Craft struck by lightning on river. Race officials caught in the open during racing.	Race officials will monitor weather conditions. Distance of storm to be assessed using “30-30” rule as discussed in event plan.	<b>Senior Umpire, OURCs</b>	low
Use of Safety launches	Capsize	Stable launch to be used. Launch drivers to be qualified to RYA level 2 or equivalent. Second launch available to assist.	<b>Captain</b> , Coach	low
	Falling Out	Proper seating to be fitted, and launch not to be overloaded. Kill cords to be fitted and used at all times. Lifejackets to be worn at all times by all crew.	<b>Captain</b> , Boat Owner, Launch Crew	low-med
	Failure of engine due to fouling of propeller.	Crew to clear river of debris as appropriate. Launch to carry British Rowing recommended safety equipment, including a knife and paddle.	<b>Captain</b> , Launch Crew	low
	Mechanical failure	Launch to be serviced regularly. Second launch available to assist.	Boat Owner	low

Hazard	Risk	Control measures in place	Person(s) responsible	Risk factor
<b>Land based</b>				
Collision involving accompanying cyclists	Injury to cyclists and pedestrians, possibly immersion.	<p>Notices posted at entry points onto the towpath that a regatta is in progress.</p> <p>Marshals to wear high visibility yellow bibs and warn pedestrians of oncoming races.</p> <p>Marshals briefed to warn Race Desk if there is a large density of members of the public on the towpath in their area.</p> <p>Marshals briefed to report dangerous behaviour on the part of following cyclists.</p> <p>Cyclists limited to two per crew: an event umpire and the crew's coach. Extra cyclists will incur fines.</p> <p>Bike Marshal to precede each division, warning members of the public that cyclists are approaching.</p> <p>Warnings put out by Race Desk over the tannoy 5 minutes and again 1 minute before each division that a race is about to go off. Further warnings may be given during the race itself.</p> <p>First aid presence as above.</p> <p>Race Committee briefed on emergency procedures.</p>	<b>OURCs, Coach</b>	med
Collision between boats or blades and spectator	Injury to bystanders, immersion.	<p>Captains aware of responsibilities for any supporters and spectators.</p> <p>Marshals available at boathouses with radios.</p> <p>First aid presence as above.</p> <p>Race Committee briefed on emergency procedures.</p>	<b>Captain, Crew</b>	low
<b>Cannons</b>				
Unauthorised access or operation of the start cannons	Injury or accident to operator or passers by, Confusion of racing crews, Breach of firearms legislation.	<p>The cannons are situated adjacent to the senior umpire position and are chained to each other throughout racing making them very difficult to move. The cannons are not left unsupervised at any time.</p> <p>The cannons are operated by a competent person, under the supervision of a firearms licence holder.</p> <p>Spare cartridges are kept in a locked box, with keys removed. Cannons are unloaded when not required for immediate use. The operator is in immediate attendance to</p>	<b>Firearms License Holder, Senior Umpire</b>	low
Cannon discharge at inappropriate time				

Theft of cannons		any loaded cannon. The cannon operator has a race radio and is familiar with the operation of racing.		
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In the event of the Environment Agency (EA) displaying Amber or Red Boards at the local locks which indicates a strong stream, OURCs has developed a range of contingency plans to allow the Regattas to continue in some form. (In italics is the Flag state relating to the number of bucks drawn, which dictates what rowing takes place during training.)

<b>Hazards (RIVER BASED)</b>	Adverse Weather/River Conditions: Strong Stream Flowing and/or High winds against stream causing potentially choppy water conditions
<b>Resulting Risks</b>	Difficulty in manoeuvring boats when spinning and rowing, with consequent increase in risk of collision, tangling and being swept onto obstacles/hazards
<b>Persons Affected</b>	All crews

<b>Controls in place to reduce risks</b>	<b>Persons responsible</b>
<p><b><i>Blue Flag (2 bucks)</i></b>  <b>Good conditions:</b>                      As normal.  <b>Poor conditions (at the discretion of the SU):</b>                      Senior and experienced coxes only. Coxing eligibility restrictions lifted. Bunglines moved up 3 places.                      Non-fixed divisions allowed to scratch with no penalty.</p>	<p><b>OURCs Committee, Senior Umpires</b></p>
<p><b><i>Amber flag (4 bucks)</i></b>  <b>Good conditions</b> (e.g. high water, but low stream and wind):                      As well as the above, a third safety launch used, stationed at Longbridges. Bunglines moved fully up. Safety launch on duty alongside bunglines. Non-senior divisions run as half divisions. Non-fixed divisions plus bottom half of lowest fixed divisions scratched.  <b>Poor conditions</b> (e.g. high stream or winds):                      As above, but only Senior divisions, run in half divisions with increased time gaps. Senior crews and senior coxes only. Crews allowed to scratch without penalty.</p>	
<p><b><i>Red Flag (5 bucks)</i></b>  <b>Good conditions</b> (e.g. low water, fast but dropping stream, low winds):                      As above.  <b>Poor conditions:</b>                      Racing cancelled.</p>	
<p><b><i>Rowing On</i></b>                      If Rowing On has been cancelled, non-fixed divisions will be scratched.</p>	