

Charles River Rowing Traffic Pattern

INTRODUCTION

The following document designates standards for Charles River traffic patterns and safety procedures for rowing or sculling shells and accompanying coaching launches. These safety standards are not intended to constrain workouts, but rather to ensure a safe training and recreational environment for all rowers and coaches.

The reconvening of a Charles River Rowing Committee follows from renewed safety concerns with the vast increase in river traffic over the past several years. This committee represents private boat clubs, university and high school rowing organizations, and signals their commitment to maintaining a safe and cordial rowing environment on the Charles. The committee hopes to address safety issues, foster a broader community among the various clubs and programs, and participate in a unified fashion in the upcoming renovations of the Charles River Watershed.

At this time, the committee proposes to serve as a coordinating, rather than a governing, body. Rowing organizations on the Charles are expected to train, monitor and enforce these standards with their own crews and scullers on their own honor. The committee provides a mechanism for achieving a common understanding of how to safely use our precious resource together.

Charles River Rowing Committee:

Cambridge Boat Club: Jerry Murphy

Community Rowing: Alyson Magian, Sara Hall, Anna Beuhler

Riverside Boat Club: Kate Sullivan

Union Boat Club: Tom Bohrer, Kevin McDonnell, Laura Donohue

Boston University: Rodney Pratt

Harvard University: Harry Parker

MIT: Gordon Hamilton

Northeastern University: Joe Pojednic

Boston College: MJ Curry

Lesley College/CRLS: Dale Wickenheiser

Regis College: Christopher Martel

Belmont Hill: Chris Richards

BB&N: Ed Kloman

Brookline HS: Maura Conron

Winsor School: Lisa Stone

I. CHARLES RIVER TRAFFIC PATTERNS FOR ROWERS

These traffic patterns apply to all crews and scullers using the Charles River from the Newton Yacht Club to the Charles River Dam. Refer to the accompanying map for visual representation. *Other craft may follow different traffic patterns as designated by the MDC or Coast Guard.*

General Principles

The following general principles apply at all times, **in pressure pieces and on the paddle.**

- **Courtesy and civil language** are appropriate at all times.
- **Stay to the right-hand side** of the river at all times, with starboard blades to shore. For extra safety, keep both boats and blades on the right third of the river as if it were a 3-lane highway. Stay right on turns, and **do not cut corners.**
- Overtaking boats shall **pass to the left (port)**; boats being overtaken shall yield to shore. It is the responsibility of the overtaking boat to avoid a collision: overtaking boats must be prepared to **slow down or stop to avoid contact.** Boats approaching in opposite directions shall pass **port to port.**
- Coaching launches shall **be aware of traffic in both directions**, and shall yield to shore to allow overtaking boats to remain on the correct side of the river.
- **Turn quickly to rejoin general traffic flow**; do not angle across, or stop perpendicular to traffic. Turn only in locations that allow good visibility in all directions; avoid turning near bridges and sharp turns.
- **Move to shore to stop or drill**, and avoid stopping in designated trouble spots (*).
- All boathouses and coaches are requested to accommodate rowers endangered by extreme weather; rowers shall use good sense, USRowing guidelines or specific boathouse rules to determine safe conditions to launch.

General Traffic Flow

The traffic pattern is described from Watertown to Boston in both directions. For all bridges except two, traffic is limited to one-way only in each individual arch; boats use right-hand arches except where noted. Arches are counted in each direction from the shore towards the center of the river. *Note that heavy traffic, bad water or the presence of a launch is no excuse to use the wrong side or arch at any time.*

Charles River Rowing Traffic Pattern

Newton Yacht Club Channel: Upstream crews and scullers shall stay to the north or Watertown side of all channel buoys, being careful of the shallows close to the river's edge. The channel between the buoys is reserved for downstream traffic, and is used by power boats. Crews and scullers are urged to proceed with caution near the docks for Community Rowing (CRI), the vast majority of whose coxswains and scullers are novices. Coaches are asked to be judicious in their use of power megaphones in the early morning in this residential neighborhood.

MDC Boat Launch Ramp: All crews and scullers should be aware of motor boats launching or landing. Downstream crews and scullers shall stay clear of the ramp without interfering with the upstream lane.

North Beacon Bridge: Downstream crews and scullers shall use the right-hand arch. Upstream crews and scullers shall prefer the right-hand arch, but may use the center arch if the shore arch is obstructed. Upstream crews and shells using the center arch shall make an immediate course correction back towards the shore upon exiting the bridge to avoid downstream crews.

Sandbar: Roughly 1/3 of the way downstream from the North Beacon Street bridge is a sandbar on the downstream side, marked by a stump. Downstream crews and scullers must venture into upstream traffic to avoid this obstacle, but shall not cross over excessively. Upstream crews and scullers must be aware of this awkward traffic pattern.

Arsenal Bridge: Crews and scullers shall use the right-hand arch in each direction. Upstream crews should be wary of shallow depths near the marshes just downstream of the bridge.

(* Eliot Bridge: Upstream crews and scullers shall use the center arch to avoid crews launching from Cambridge Boat Club, BB&N and Belmont Hill. Downstream crews and scullers shall use the right-hand arch. Just downstream of the bridge is the Eliot turn. Downstream coxswains shall **use their rowers** to keep a tight course to shore, and exercise extreme caution in multiple boat situations. Upstream crews and scullers shall **stay right** to leave room for downstream boats for whom this turn is a challenge. *Note that the HOCA race course is now double buoyed further away from Boston, so practicing crews or scullers need never cross the center line.*

Anderson: In each direction, crews and scullers shall use the right-hand arch. The **center arch is for upstream crews and scullers only** to avoid boats launching from Weld Boathouse.

Weeks Footbridge: Downstream crews and scullers shall use the right-hand arch, turning sharply through the bridge to starboard (Boston) to avoid upstream crews. Use care along the Boston shore to avoid rocks when the water level is low. Upstream crews and scullers may use the right-hand or center arches, while not crossing the center line.

(* Powerhouse Stretch / Western Ave. and River Street Bridges: This area is used **heavily** by crews racing side-by-side, for high school and club races, and seat racing. Racing crews and scullers have right of way in this stretch. All crews and scullers, upstream and downstream, must use the right-hand arches of both bridges, going single file if not racing. The **center arches are two-way** to accommodate racing, with one boat in the right-hand arch, and the other to the **right-hand side of the center arch**.

(*) Racing crews and scullers are only allowed to use the center arches if the right hand arches are concurrently used, and preferably with a coach. From Labor Day through Thanksgiving, from 5 am until 1 pm, the center arches of Western and River street bridges are **upstream only**, to accommodate crews and scullers training for the Head of the Charles regatta. In the afternoon, the center arches resume being bi-directional.

Charles River Rowing Traffic Pattern

Note that both ends of the race course cross just onto the wrong side of the river. Crews turning shall proceed well into the corners at the Weeks Footbridge (Cambridge) and the Railroad Tracks (Boston), being alert for and notifying approaching crews. Coaches are urged to choose their time openings carefully and proceed expeditiously.

(*) BU Bridge and Boathouse: Upstream crews and scullers shall use the second arch from (Cambridge) shore, as the shore arch is shallow. Downstream crews and scullers may use the second or third arches from (Boston) shore to avoid sailboats launching from the BU sailing pavilion. *Note that all large motor boats use the second arch from the Boston shore to pass both upstream and downstream through this bridge, to accommodate their size.*

Extreme caution is required when approaching the lower basin at the BU Boathouse. This area is the busiest on the river, where Union and MIT lanes cross regular traffic patterns, and crews are turning to begin Head of the Charles pieces or 2000m race pieces in the basin. Crews and scullers pausing in between pieces shall do so **downstream** of the boathouse where the river widens on both sides, and pull to shore. Noting that the Head of the Charles course begins at the downstream corner of the BU balcony, racing crews and scullers shall line up at least 50m downstream of the boathouse sufficiently out from shore to have a straight point through the second (Cambridge) arch, to avoid the MIT lane.

Basin and Mass. Ave (Harvard) Bridge:

Upstream[s1] crews and scullers shall follow the 6 lanes designated for the 2000m race course along the Cambridge shore, pointing at the targets through the arches that mark lanes 3-4-5. The wide, painted arch (6th arch from Cambridge) comprises lanes 3-4; the narrow arch (7th arch) to its left contains lane 5; the narrow arch (5th arch) to the right of the painted arch contains lane 2, and the next wide arch (4th arch) toward the Cambridge shore marks lanes 0-1. The two arches to Boston of lane 5 of the race course (8th/9th from Cambridge) remains **unused in either direction**, to avoid any accidental cross-over of lanes in this area of poor visibility. Upstream crews and scullers shall not steer further right (Cambridge) than lane 0 to avoid the MIT lane. Crews and scullers warming up shall restrict themselves to the right-hand lanes 0, 1 and 2 to let through traffic pass to port in lanes 3, 4 and 5. Crews and scullers doing full 2000m race pieces have right of way over crews and scullers doing shorter pieces on the race course.

Downstream[s2] crews and scullers shall proceed down the **center** of the basin, using the 8 arches from the 4th arch to the left (Cambridge) through the 4th arch to the right (Boston) side of the lighted platform. The first four arches from the Boston shore comprise the upstream Union lane. Crews and scullers warming up shall keep to the right-most of these lanes, leaving the left lanes to port open for through traffic to pass.

Crews shall approach sailing vessels with caution, as they are often less maneuverable. The green sailing buoys provide lanes for crews on either shore, keeping sail boats to the center of the basin.

Longfellow (Salt & Pepper): Both downstream and upstream crews and scullers shall use the arches to

Charles River Rowing Traffic Pattern

the right of the center arch. The center arch between the towers is not used to avoid crews crossing over. Downstream crews and scullers taking extended 2500m pieces shall proceed well into the corner at the bridge, and must exercise extreme caution when turning upstream so as to merge properly with other upstream crews emerging from the bridge. Boats must also be alert for Union crews exiting from the lagoon near the bridge.

Special Lanes

Several areas on the river have special traffic patterns to accommodate crew safety, which require special attention by all crews approaching these areas.

MIT Lane: The MIT lane allows crews to launch and land from the MIT Boathouse *without* crossing the race course. The lane extends out from the Cambridge shore to the outer boundary of the MIT Boathouse, and crews passing upstream on the race course shall stay left. It extends from the MIT Boathouse to the footbridge over Storrow Drive, where MIT crews rejoin the regular traffic patterns. *Crews and scullers in the lower basin should watch for MIT boats crossing in and out of this lane.*

Union Lane: The Union lane allows scullers launching from Union Boat Club to pass upstream through the lagoon, or along the Boston shore in poor weather conditions, to avoid crossing the basin. It also allows crews to proceed upstream when wind conditions do not permit normal use of the 2000m race course. The lane includes the 2nd through the 4th arches from the Boston shore (the shore arch is impassible), and runs from the lagoon at the Hatch Shell to just past the 2000m finish, where upstream crews and scullers shall cross quickly to the Cambridge shore. *Crews and scullers in the lower basin must be alert for boats crossing out of this lane.*

Note that the lagoon, which is generally accessible only to single sculls, is a **no pressure zone**. Scullers must be constantly alert for scullers approaching in the opposite direction.

Charles River Race Courses

The following race courses are used regularly by crews and scullers throughout the rowing seasons. As racing crews and scullers have priority on the courses on race day, crews and scullers are urged to consult the race schedule to be aware of racing events. Race hosts are urged to forward copies of the Charles River Traffic Standards to race participants, and are strongly urged to designate formal warm-up patterns that conform to these standards. Local crews and scullers are particularly urged to be aware of visiting crews on race days; visiting crews are requested to respect local traffic patterns.

Collegiate 2000m Course: The 2000m race course is used extensively by college crews on Saturday and Sunday mornings from mid-March through mid-May, with races beginning as early as 6 am and continuing through the morning. The race course allows for 6 lanes running upstream on the Cambridge side of the basin. The starting line is marked by orange stripes on the overpass on the

Charles River Rowing Traffic Pattern

Cambridge side, roughly 100m upstream of the Longfellow Bridge. On the starting line, crews shall position themselves by pointing at the orange targets through their designated arch on the Mass Ave Bridge, to ensure a straight course. Note that on race days, stake boats are anchored here to facilitate fair starts. Painted stripes on the Cambridge wall at the MIT sailing pavilion (500m), the Mass. Ave Bridge (1000m) and MIT boathouse (1500m) mark the 500's. The finish is marked by white stakes on the Cambridge shore just downstream of the Hyatt hotel. On race days, finish line personnel use red flags to mark boat finishes.

High School Varsity Course: The Varsity High School course is used Wednesday afternoons and Saturday mornings and afternoons throughout the spring. The race course allows for 3 lanes running downstream on the Boston side of the Powerhouse Stretch. The starting line is marked by florescent orange stakes on both the Cambridge and Boston side of the river, roughly 200-300 meters downstream of the Weeks footbridge, for a floating start for racing crews. The course proceeds downstream to the finish line roughly 50 meters downstream of the Riverside Boat Club dock on the Cambridge shore. Note that Riverside Boat Club uses the same course for their regattas: The Cromwell Cup in mid-May, and the Riverside Sprints in mid-July.

High School Junior Varsity Course: This course begins slightly downstream of the Northeastern Boathouse. The start is marked by a florescent orange stake on the Boston/Brighton side of the river about twenty-five meters from the Northeastern Boathouse. From the start, the course runs approximately 700 meters downstream to slightly above the Belmont Hill Boathouse. On race days the finish line will be marked with a floating flag. Crews and scullers shall use extreme caution approaching this race course, as all racing boats are novice rowers and coxswains.

Head of the Charles Regatta 5000m Course: Crews interested in the Head of the Charles Regatta course are referred to the regatta website for detailed specifications: www.hocr.org Given the vast numbers of participants, crews and scullers shall closely observe the designated warm-up and warm-down procedures set forth in regatta documentation, in particular in the days just preceding the regatta. Note that the official HOCR practice pattern, which takes effect on a designated day prior to the regatta, and the race pattern, may differ from standards set forth in this document, and are valid ONLY during the specified dates of the regatta.

Tail/Foot of the Charles Regatta 2.5 Mile Course: Novice crews participate in their own head-style race in the middle two Saturdays in November. The start is marked by an orange buoy at the MIT Boathouse, to be passed on the port side, and proceeds upstream using the standard traffic patterns described above, including a buoy which must be passed on port at the Weeks Footbridge. The finish is marked by another orange buoy at Newell Boathouse, to be passed on the port side. Specific warm-up and warm-down rules ensure the safety of the large number of novice participants; these are provided to crews upon entering the regatta.

Charles River Rowing Traffic Pattern

Launching and Landing at Boathouses

All crews and scullers must launch and land following the procedures listed below, designated as the safest for that particular location. Note that in all cases, through traffic has the right of way over launching and landing craft.

Community Rowing: Crews and scullers launch and land heading downstream; a few docks involve turning perpendicular to shore. Landing crews shall proceed upstream to the blue buoy at the top of the Newton Yacht Club, and turn downstream to land.

Henderson (Northeastern) Boathouse: Boats launch and land heading downstream[\[s3\]](#) .

Belmont Hill Boathouse: Crews launch and land heading upstream.

BB&N Boathouse: Crews and scullers launch perpendicular to shore.

Cambridge Boat Club: Crews and scullers launch and land heading upstream, with a few perpendicular slots. Boats landing after coming downstream through Eliot Bridge must be alert for crews heading upstream before crossing to land.

Newell (Harvard) Boathouse: Crews and scullers launch and land heading upstream, taking care when crossing over through the Anderson Bridge.

Weld (Radcliffe) Boathouse: Crews and scullers launch and land heading upstream. Boats launching to go downstream shall pass expeditiously through Anderson Bridge and turn at Newell for best visibility.

Riverside Boatclub: Crews and scullers launch and land heading upstream.

BU Boathouse: Crews and scullers launch and land heading upstream. When basin traffic is heavy, boats launching to head downstream are encouraged to proceed expeditiously through the BU Bridge and turn at Magazine Beach.

MIT Boathouse: Crews and scullers launch heading upstream, and must proceed further upstream in the MIT lane before turning downstream to avoid crossing the race course. Crews and scullers land heading downstream using the MIT lane.

Union Boat Club: Crews and scullers launch from the dock in either direction, exit the lagoon from the downstream opening, STOP to check for oncoming traffic, and cross the basin expeditiously to lanes 0-2 to head upstream. Boats landing enter the lagoon from either opening, and land in either direction.

II. ROWING EQUIPMENT

Blades

All organizations shall paint blades in their designated pattern, and require that private equipment owners follow suit, to make a crew's affiliation known to others.

Charles River Rowing Traffic Pattern

Shell Lights

Appropriate lighting for shells is essential for safety, as practice hours are constrained much of the year to dawn, dusk and darkness. Shells launching before or after sunrise **must** be properly illuminated in a manner consistent with MDC and Coast Guard regulations.

Two lights – marking bow and stern – are necessary for proper illumination of all shells, including single sculls, to ensure visibility by approaching crews from either direction. Lights shall be attached to the boat rather than the crew to ensure constant visibility. Clubs or university programs must provide lights on club equipment, but may require that private shell owners provide their own.

- **Bow light** should be red / green (port / starboard), and be attached to the bow marker clip or forward point of bow washbox well in front of the bowman. *Flashing or strobe lights are NOT as visible as solid lights, and are not acceptable, except as a secondary source of illumination.*
- **Stern light** should be white, and be mounted aft of stern washbox or mounted above stern of boat.

Clothing

Rowers are urged to wear high visibility clothing with reflective strips to enhance visibility to others. In foggy conditions, darker clothing is more visible, while at dawn or dusk, lighter clothing is best.

The table below indicates **daylight times** for the calendar year. Crews on the water before or after these times must be properly illuminated.

Date	1 st -10 th	11 th -20 th	21 st -31 st
January	6:45 a.m.-4:30 p.m.	6:45 a.m.-4:45 p.m.	6:45 a.m.-5:00 p.m.
February	6:30 a.m.-5:15 p.m.	6:15 a.m.-5:30 p.m.	6:00 a.m.-5:45 p.m.
March	5:45 a.m.-6:00 p.m.	5:30 a.m.-6:00 p.m.	5:15 a.m.-6:15 p.m.
April*	5:00 a.m.-6:30 p.m.	5:45 a.m.-7:45 p.m.	5:15 a.m.-6:15 p.m.
May	5:15 a.m.-8:00	5:00 a.m.-8:15	5:00a.m.-8:15

Charles River Rowing Traffic Pattern

	p.m.	p.m.	p.m.
June	5:00 a.m.-8:30 p.m.	5:00 a.m.-8:30 p.m.	5:00 a.m.-8:30 p.m.
July	5:00 a.m.-8:30 p.m.	5:00 a.m.-8:30 p.m.	5:00 a.m.-8:15 p.m.
August	5:00 a.m.-8:15 p.m.	5:15 a.m.-8:00 p.m.	5:30 a.m.-7:45 p.m.
September	5:45 a.m.-7:00 p.m.	6:00 a.m.-6:45 p.m.	6:15 a.m.-6:30 p.m.
October	6:30 a.m.-6:15 p.m.	6:45 a.m.-6:00 p.m.	7:00 a.m.-5:45 p.m.
November*	6:15 a.m.-4:45 p.m.	6:15 a.m.-4:30 p.m.	6:15 a.m.-4:30 p.m.
December	6:30 a.m.-4:15 p.m.	6:30 a.m.-4:15 p.m.	6:45 a.m.-4:30 p.m.

- End / beginning of daylight savings time

III. COACHING LAUNCHES

The following guidelines pertain to coaching launches on the Charles River. Each rowing organization is responsible for ensuring that all coaches comply with them. *These guidelines supplement, but do not replace, US Coast Guard Regulations for small boats.*

General Launch

It is the responsibility of each program to be sure that all launches have current registration, and display the registration numbers and up-to-date stickers in the appropriate places. As for shells, launch affiliations must be clearly marked by name or blade pattern.

Communication between all launches and crews or coxswains is essential, particularly when overtaking others or turning. Coaches and coxswains should not be shy, when safety is in question, in communicating their position to other crews and coaches.

Charles River Rowing Traffic Pattern

Launch Traffic Pattern

Coaching launches shall follow the same traffic pattern as the crews being coached. When traffic or river depth necessitate moving to the left side of the river, coaches must exercise extreme caution and concentrate on the traffic ahead rather than on coaching. Coaches must be aware at all times of traffic approaching from either direction, and shall yield to shore to allow overtaking boats to remain on the correct side of the river

Coaching launches approaching crews in either direction shall reduce large wakes and give other crews sufficient clearance. Coaches are urged to be especially sensitive about waking single sculls.

Lighting

As with shells, launches must display **two lights**, with the bow light marked red / green (port / starboard) and the stern light white. It is recommended that launch lights use re-chargeable batteries, or be wired into the launch's electrical system.

Safety Equipment

Safety equipment must be carried at all times, and should be checked periodically to be sure it is still operable, legal and most importantly, accessible. Safety equipment must include:

- Approved life jacket or floatable cushions or inflatable life vests for at least 1 crew
- First aid kit
- Space blanket for hypothermia
- Spare line
- Paddle and boathook
- Megaphone
- Fire extinguisher
- Horn or whistle
- Spare flashlight
- Mobile communication to shore (*recommended)

Launch Design

Launches should be designed so as to allow the proper conduct of and provide the necessary safety for crews being supervised. Additionally, launches should be operated so as to minimize the disturbance and potential damage to other boats and individuals on the river. Factors to be considered in the design

Charles River Rowing Traffic Pattern

include:

- A **wakeless launch** is beneficial on this busy river. Launches that are balanced fore and aft cause less wake than those that have stern drag. If a launch must be driven from the motor in the stern, there must be adequate counter ballast in the bow to allow for proper trim, to minimize wake and ensure better visibility.
- Launches must not have sharp edges or corners, protruding objects or pointed bows that might cause harm to an individual or shell. All of these areas must be covered by rudder rails, bow balls, or soft covering. Remember to consider the variety of shell height off the water – from a few inches for singles to several feet for an eight – and be sure that launches have adequate protection through this full range.
- Launches shall have extra capacity for several rowers in the event of an emergency. The coach must know the proper technique for pulling a person out of the water into their specific launch (i.e. over the side, over the stern, over the bow).
- Whenever possible, launches should have steering mechanisms that are separate from the motor. A steering wheel and throttle controls located in the middle of the launch ensure proper visibility and hearing in all directions, as well as minimize wake.

IV. SAFETY EDUCATION AND TRAINING

It is the responsibility of each organization on the Charles River to ensure that all aspects of their program are operated in a safe and sportsman-like manner. In order to achieve this basic level of safe conduct, all rowing programs are urged to abide by the following guidelines for preparing all members to use the Charles River.

- At the beginning of each rowing season, and periodically during each season as well, coaches and rowing committees shall **review the guidelines** set forward in this document. All rowing organizations are responsible for ensuring that all participants know and agree to abide by the rules of the river, as well as other aspects of safe rowing.
- **Every boathouse has unique aspects** that must be identified and communicated to all participants, such as launching and landing procedures, shell supervision, etc. Each boathouse is responsible for making all members aware of these specifics.

Charles River Rowing Traffic Pattern

- Rowing organizations are urged to require that members certify a **minimum swimming ability**. Rowing organizations may choose to implement further safety procedures, such as four-oared rule – crews of no fewer than four combined oars allowed to launch – for extreme weather. Refer to USRowing posters to educate athletes on proper clothing and hydration during strenuous exercise.
 - Rowing organizations shall educate all staff and athletes – especially coxswains and single scullers – as to **basic emergency procedures** for extreme weather or in the event of capsizing or swamping. Refer to **USRowing posters and videos** for techniques.
 - All coaches shall have a current **CPR** certification, and are encouraged to take the **Coast Guard Course in Boating Safety** (required for the USRA Coaching Level I Certification or Power Squadron Course).
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[s1] The easy way to remember this is that you can only use arches as far as one to the left of the racing (or painted) arch.

[s2] The easy way to remember this: use 4 arches to the left and 4 arches to the right of the lighted platform.

[s3] In practice, when traveling west bound or upstream, NU lands in an upstream direction to avoid spinning at the bottom of the significant turn above their docks.