Rowing Canada Aviron Touring Guidelines

November 2022

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Revised by Peter Bursztyn, March 2016, December 2017, September 2018, January, 2022, February 2022, August 2022.

INTRODUCTION

These Guidelines are intended to provide rowers, and those organising rowing tours, with the information required to plan and undertake touring safely.

Touring is unlike rowing in racing shells. Touring often takes place on unfamiliar water. Waterways must be scouted in advance to ensure the safety and enjoyment of the tour. Organisers must be alert for potential problems and hazards. They must be familiar with the venue, weather patterns, currents, obstacles and all other potential hazards as well as the skill and fitness level of those likely to participate. Participants must be skilled and fit enough to row for several hours each day.

All safety equipment, spare parts and necessary tools must be accommodated in your touring shell. Docks will not always be available to facilitate a safe landing should the weather turn nasty. Boat captains and coxies must know how to make a beach landing, how to deal with a rocky shore, how to disembark at a dock higher than the boat's riggers and how to disembark at a motorboat launch ramp.

Touring Equipment – Boats

There are many different styles of boat used for touring. Touring boats are wider, sturdier, heavier, and more stable than racing shells. (See Appendix A)

Planning

Choose a route with consideration of safety and practicality. When planning, consider tides, prevailing winds, and water patterns. The launch and take out sites must have available parking for cars and trailers and safe water access. Consider places to stop for breaks, viewpoints, swimming sites, etc, ensuring that each site has space for the boats to be beached or moored safely.

Travel distances need to consider the likely speed of the crews taking part. As skill and fitness levels vary, a realistic average speed is approximately 8-9km/hr.

Water conditions, wind, current, and proposed course (open water or river) will affect the distances covered per hour.

Safe havens must be identified in advance in case of emergency or inclement weather.

Consider using a shore support crew or motorised accompanying safety boats. Accommodation or camp sites for overnight tours must be arranged in advance.

A complete Tour Plan and a daily Float Plan must be prepared, and a copy filed with a responsible person on shore.

An Emergency Action Plan must be prepared with procedures for inclement weather and emergencies.

Touring Equipment Checklist

1. Ensure that boats, blades and riggers are in good condition prior to the tour.

2. Maps, charts, and detailed written directions are to be available for all crews, before setting out. These should be in a waterproof, transparent (zip-lock) bag.

3. One DOT-approved life jacket must be carried in the boat for every participant. Inflatable PFD's should be worn (https://tc.canada.ca/en/marine-transportation/getting-started-safe-boating/choosing-lifejackets-personal-flotation-devices-pfds)

4. Tools and spare parts should be readily available for all boats

5. One or two spare blades should be taken on each trip.

6. A bailer or pump, a whistle (or other sound signalling device), a signalling mirror or flashlight, and a throw line must be on board each boat. See the Canada Safe Boating Guide https://tc.canada.ca/sites/default/files/migrated/tp_511e.pdf

7. A fully stocked first aid kit must be available.

8. For tours passing through locks, each boat must have a paddle and a boathook to help maneuver near a dock or lock wall.

9. Participants are responsible for packing appropriate clothing and cell phones in a dry lock bag.

10. VHF Radio for marine communication is important if you are touring on open water. Check your local area for appropriate emergency numbers and radio channels.

11. Consider the use of a satellite communicator and locator device.

Responsibility in the Boat

On a tour, there are 3 levels of command:

- The **Tour Leader** (and/or Organiser) is in charge of the overall planning, safety and organisation of a trip and chooses Boat Captains when the crews are selected.
- The **Boat Captains** are in change of their own boats, equipment and safety. They should interact with the coxswain to ensure a safe trip.
- The **Coxswain** (Cox) is in charge of steering the boat. The position of Cox should be exchanged between crew members.

Tour Leader:

- The following are the responsibility of the Tour Leader: trip route, maps, charts, instructions, weather forecast, rendezvous locations for participating boats and accompanying vehicles if any, plus emergency landing sites.
- The Tour Leader must ensure that Boat Captains understand the above, and have maps/instructions in a waterproof protector.
- A daily Float Plan should be formulated and copies left with all support teams
- The daily Float Plan should include the designated route, departure and projected arrival times, safe harbours for emergencies, radio or cell phone contact number.
- The tour leader must know how to read a marine chart and/or a topographical map. The tour leader must have a detailed chart and information on unfamiliar waters, warning of specific dangers (shallow water, deadheads, rocks, etc.).
- An Emergency Action Plan should be in place with contact numbers of participants. A copy must be left with the Float Plan.If there is a shore party with vehicles/trailers a, Float Plan and the Emergency Plan must be shared with them. A copy should be kept in a waterproof pouch on land and with the Tour Leader.
- The Tour Leader must brief the coxies/captains of participating boats on the day's course before setting out.
- When several boats participate in a tour, the tour leader should keep the boats together (within sight or hailing distance) at all times.

Boat Captain:

- Takes responsibility for their boat and crew (ensuring their boat has life jackets, safety equipment, water bottles, snacks, and any other necessary gear).
- Must keep their boat close enough to the other boats to render assistance should the need arise.
- Ensures that each crew checks their boat and all other equipment prior to launching and at the end of the day.
- Reports any breakages or problems to the Trip Leader.

Safety Regulations

Under the Canadian Coast Guard Regulations, a rowing boat is considered to be unpowered and treated in the same way as a sailing craft. The rules state:

- Both power and unpowered boats must give way to large vessels which can only operate in a marked channel
- Unpowered boats must give way to other unpowered boats on their starboard quarter. When approaching head on, two boats should steer so as to pass each other portside to portside.

Be aware of safety at all times. It is the responsibility of the Tour Leader and Boat Captains to ensure that all vessels under their command understand and comply with Canada Safe Boating regulations https://tc.canada.ca/sites/default/files/migrated/tp_511e.pdf

Preparing to Row

- Tour Leader must obtain a current area weather forecast and should be prepared to change or cancel plans if the weather deteriorates.
- Wind and waves can be checked through various weather apps. Commonly used apps are: https://www.windfinder.com/#3/39.5000/-98.3500 and https://www.sailflow.com
- The location and a description of emergency landing sites along the day's route must be reviewed.
- Assign crews to boats so that the crews are roughly balanced as to strength and skill in order to facilitate staying together.
- Supervise the loading of the boats with whatever baggage is to be taken. Make sure that everything is sensibly stowed and does not overload the boat or hamper rowing.

Whitecaps

Whitecaps should be avoided whenever possible. Waves spilling into the boat can cause the boat to gradually fill, ride lower in the water and be eventually swamped. If whitecaps appear, boats should be rowed to the nearest calm water, and then to the nearest available landing site where the tour fleet should wait until the wind drops.

Lightning Storms

Make for the nearest available safe landing site at the first sign of lightning. Keep close to shore and land as soon as feasible.

Fog, Darkness

In the event of sudden fog, make for shore immediately! Plan for a landing long before dark.

Lee Shore

In the "old days", sailors were warned to "Beware the Lee Shore". The "Lee Shore" (observed from the boat) is the shore seen from the side of the watercraft away from the wind. (1) A boat is being pushed, by the wind, onto the Lee Shore. (2) If the wind is strong, breakers may be crashing onto this shore. Both conditions make it hard for a sailboat to maneuver away from a Lee Shore and to avoid running aground. Large cargo ships may have insufficient power to fight a strong wind, and may run aground on a Lee Shore. Rowing boats would do well to keep this warning in mind!

Dams

- Where dams exist, water levels may change without notice. The dam operators may spill or accumulate water changing a lake's level by 1-2 metres in just a few hours.
- Immediately above a dam, the water may appear smooth and calm, but there may also be an invisible current washing over the spillway (or over low weirs). The water above a dam is potentially dangerous.
- Canadian dams are generally marked with a line of small, highly visible buoys well upstream of any fast water.
- Some wilderness areas may not be well marked. Never row in wilderness areas without a map or chart to guide you.
- Avoid rapids. Below a dam there are often rapids and fast water.

Locks

- Locks present a set of hazards to touring boats;
- A boat going through locks should always have at least one experienced rower on board who has gone through locks before;
- The water level can change rapidly by 2 – 15 metres or more;
- When a lock is filling, strong currents may be generated;
- Always respect the power of the current filling the lock.

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Appendix A - History of Boat Classes

This touring manual is based on a document prepared by Peter Bursztyn in April 2000 for Ontario Adventure Rowing. It is itself is based on Dr. Claudia Mosner's translation of "The Captain and the Cox", the German Rowing Association manual, Hannover, 1992.

It has since been shortened & edited to better reflect Canadian touring. Canadians rarely row on canals or rivers with heavy commercial traffic. Also, European canals often have methods & equipment (chutes, tiny rail cars, etc.) allowing touring rowers to bypass a lock without having to "portage" their boats.

The first Canadian touring event was mounted in 1995 from Poonamalie to Portland on Big Rideau Lake. Since then, numerous tours have been mounted occurred in Ontario and Quebec with coastal events in Quebec, Prince Edward Island, British Columbia, and Nova Scotia.

Touring is highly enjoyable and offers an opportunity to meet rowers from other clubs and row with, rather than against each other. It allows participants to row hard, and for hours on end, but usually not under pressure. The time needed to complete a tour gives opportunity to make fast friendships with people one might normally only encounter briefly, or not at all, at a regatta.

Touring in rowing boats is much like canoe tripping, except for the speed. It allows participants to experience the natural world, and even sneak up on wildlife.

Touring Equipment – Boats

Worldwide, there are many different styles of boat used for touring. They all share certain qualities. They are wider and more stable than racing shells. Because they are often hauled up on beaches, they are sturdier. The seating position leaves more space between the rowers hands and thighs, which greatly facilitating rowing in rough water. Touring boats usually use a skeg rather than a fin for directional stability, allowing them to be beached standing on their hulls.

Inland or River Touring Boats

River touring is usually done in relatively narrow "C-gigs", which originated in Germany and are now very popular in Europe. A few wooden German boats were brought to Canada, however, in the 1900's, Hudson Boat Works began making their own version. The Hudson T-11 (4x+), T-7 double and T-6 single are all based on the "C-gigs". The numerical designation refers to the boat length in metres.

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The T-11 shown below, is constructed like a modern racing shell. It is constructed of a lightweight honeycomb material sheathed in carbon-fibre polymer, both cured together into a single, very stiff unit. The T-7 & T-6 are made of “Royalite”, a tough material like that used for whitewater canoes.

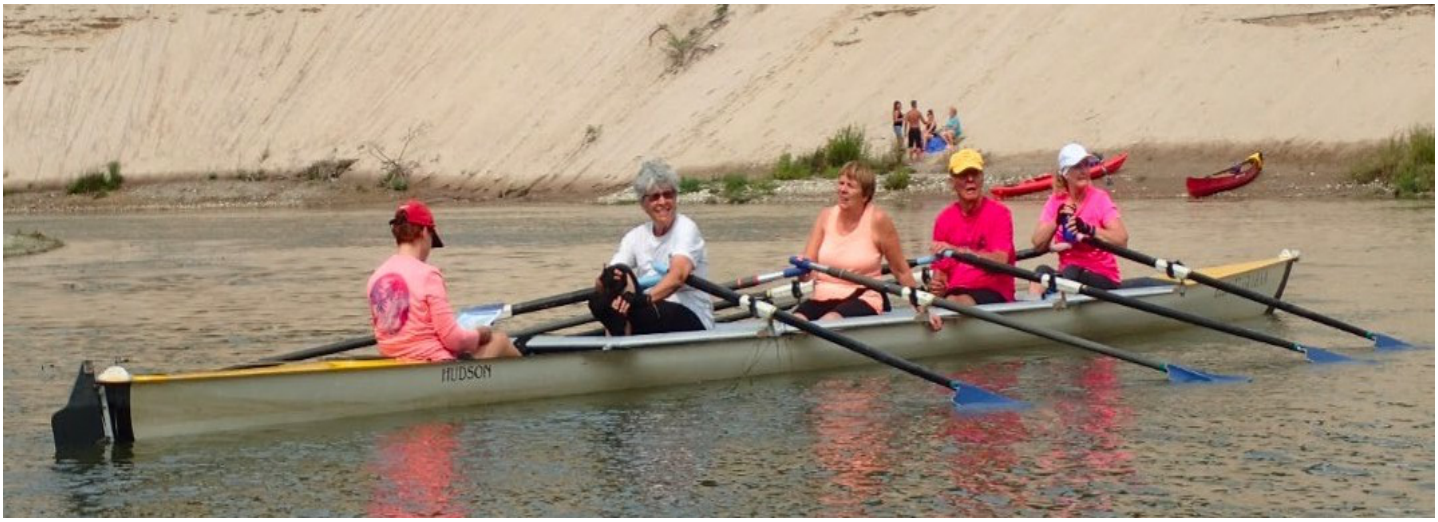

Photo 1 – An example of a T-11, manufactured by Hudson

Boats constructed of Royalite resist damage from rocks and docks, but remain light enough to be carried by their crews.

In Europe, the “D-gig” is also used. Where a “C-gig” quad is ~0.75m across the beam, the “D-gig” measures ~1m. These boats are even more stable and offer more roof for baggage, but slower Europeans also row uncoxed triple sculls (~0.7m beam) as well as quints, hexes and coxed octets, rowed by 5, 6 and 8 scullers respectively.

Holland’s traditional boat is a coxed double with a luxuriously broad coxie’s seat. The Dutch also use coxed “C-gigs” on their canals and rivers. They tend to avoid coxless boats due to the relatively
heavy traffic on their waterways. Traditionally, Venetians row standing up, pushing on their oars as in their gondolas.

On the Baltic Sea, the Danes prefer “inrigger pairs”. The rowers sit against one gunwale with their oar pin on the opposite gunwale. The “staggered-seat” design allows them to be quite short. These boats are not fast, however, they are very buoyant and astonishingly capable in choppy seas, taking in little if any water.

Norway and Sweden favour the same inrigger design, but built for four sweep rowers, shown in photo 2. These are longer, but shorter than a boat with in-line seating

The fleet for a rowing tour on the Oslo Lagoon consisted mostly of these inrigger fours and our were coastal quads. When the water was relatively calm, the quads were generally faster than the inrigger fours. However, one day the water was particularly rough, and the inrigger boats proved faster than the quads and were deemed much more pleasant to row.

Photo 2 – An example of a wooden inrigger boat

Finland has a unique boat derived from the Viking Longship. The wooden, 2m beam “Kirkkovene” or “Church Boat”, illustrated in Photo 3, has 14 sweep rowers sitting side-by-side plus a cox. It too has no riggers and is considered to be amongst the largest boats available. The oars are carried on a pin mounted directly on the gunwale and do not feather. With the power of 14 rowers, it is seriously fast; the record for Finland’s annual Sulkava race is 4 hours for a 60km course! Typically, 7,000 rowers compete in this event.

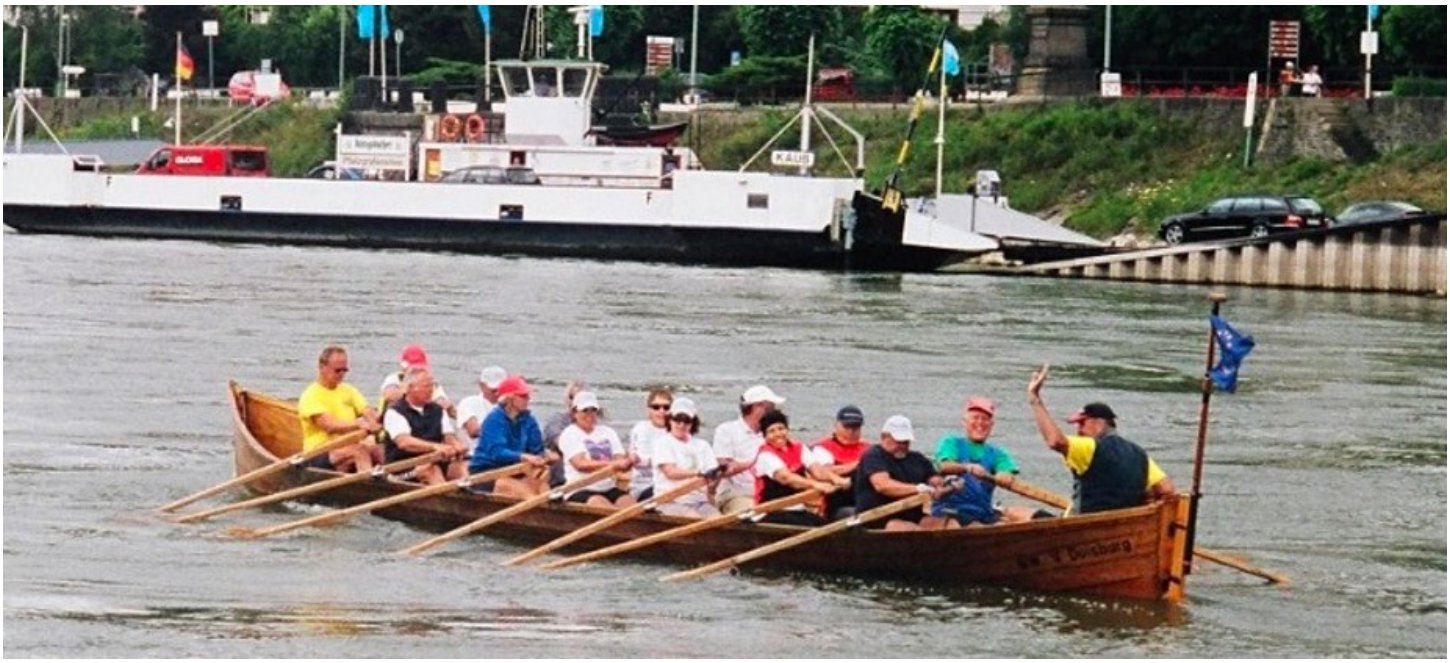

Photo 3 – An example of a wooden ‘Church boat’

Although Hudson no longer makes touring boats, there are available from various constructors in Europe, Argentina and China.

Coastal Touring Boats

Coastal touring rowing boats include the traditional Danish inrigger boats and Finland's Church Boat as well as those being manufactured by France's Euro Diffusion, which construct a number of similar boats designed for coastal racing. Their boats are double-hulled enclosing a sealed air space. So long as they are not punctured, they are unsinkable. As shown in Photo 5, The cockpit has no transom so if a wave should sweep over the boat, the water flows out the stern.

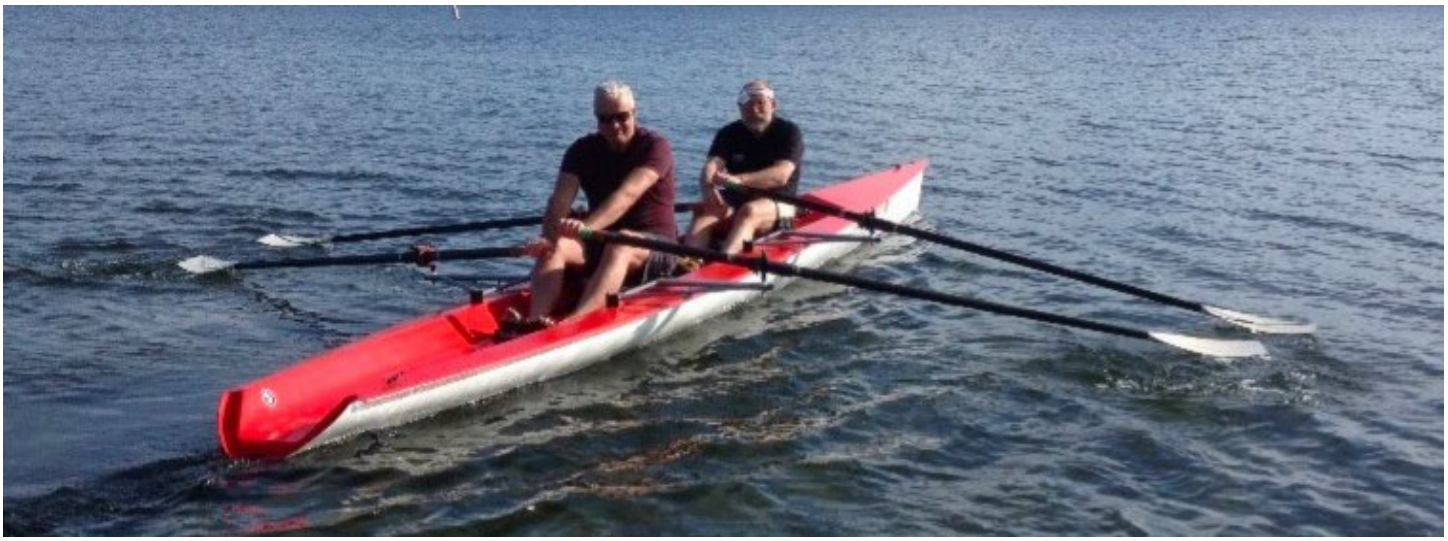

Photo 5 – A coastal racing double, manufactured by Euro Diffusion.

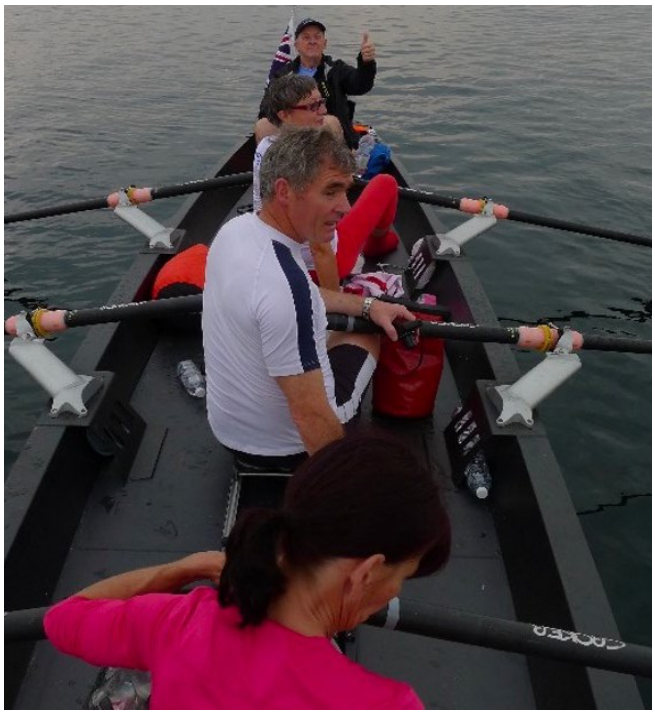

Photo 6 – A coxed quad, manufactured by Filippi

Italy's Filippi produces a similar, but wider, heavier boat with short riggers as shown in Photo 6. Their coastal boat handles rough water very well; momentum keeps it moving in waves which might stop a lighter craft completely.

Typically, coastal boats cannot be launched by their crews. The French-made coxed quad needs at least 6 people and preferably 8, to carry it; Filippi's coxed quad requires 8 to 10 people to lift it out of the water. At their home clubs, these boats are usually launched from a hand-pulled cart rolled down a ramp into water deep enough to float the boat. The French-made coastal double can be carried by its 2-person crew.

The traditional Cornish Pilot Gig has acquired a loyal following. This sturdy, heavy boat has six fixed and staggered seats. These boats were once used to tow square-rigged sailing ships into harbour. Since; the coxswain of first boat to reach the sailing vessel would get to pilot the large ship into harbour and earning the pilot fee, these boats were designed to be fast. The other boats would help with towing.

A Canadian example is the 6-person boat used at the Royal St. John's Regatta. It is consists of fixed seats, set in a staggered configuration, similar to the Scandinavian boat shown in Photo 2 above.

Blades

Canadian touring rowers often make do with blades their club's racing programme no longer needs or wants. In the 1990s, they would have used 'macon' blades which are being replaced with the then new 'hatchet' style. These days, 'hatchet' hand-me-downs are, pretty much, all that remain available.

Tour rowing is concerned with endurance rather than speed. A tour rower can expect to start the day with a 15 to 20 kilometre session, which can take approximately 2 hours. After an hour or so for lunch, the tour rower will embark once again for another 15 to 20 kilometres of rowing.

The 'hatchets' stiff shafts and large blades, which are designed for maximum speed, tend to limit slip in the water and impart a shock load to the shoulders at the start of every drive. The use of 'macon' blades on slightly flexible shafts reduce the shock and are more comfortable in the long run. In the context of touring, they will make no difference to boat speed.

Another advantage of 'macon' blades over hatchets is their suitability for use on either starboard or port side. A rowing tour should always carry spare oars. With 'macon' blades, only one spare oar is required.

Appendix B
Touring Information

Launching

Touring boats are heavier and wider than racing shells and are launched by carrying the boat right side up by its gunwales, walking it into the water and setting it parallel to the shore.

If a dock is available, it can be used to slide the hull into the water.

Crew should board one at a time to ensure stability.

Docking or Landing

If the current and wind are in opposite directions, come to land against the current and with the wind so that the boat can be steered

Beach Landing

- Approaching a beach, always watch (ask bow seat for help) for rocks or deadheads which might damage the boat.
- Do not run the boat up the beach.
- Have one or two crew members disembark before the boat grounds.
- The disembarked crew pulls the boat in towards the beach.
- If there are waves, prevent the boat being damaged by the shore! Always carry it “high and dry”.

Dock or Lock Wall Landing

- Approach the dock at an angle of about 30O. Gently brake with the waterside blades with the shore-side blades lying alongside. This should turn the boat parallel to the dock or wall.
- Make sure that the riggers will clear the dock OR
- Approach, remaining far enough so that the riggers do not hit the dock or wall.
- Bring the blades parallel to the boat while docking. Use a paddle or boat hook to complete the docking procedure.
- All crew to fend off the dock
    - If crew disembarks onto a low dock in calm water, all can disembark together
    - If crew disembarks onto a high dock, disembark one at a time while the rest of the crew balances the boat.

Storing the Boat Onshore

- Touring boats are designed to rest safely on their flat keels.
- Coastal Boats must be supported in such a way that their fins and rudders do not touch the ground!
- Make certain that the boats are pulled up, well out of reach of waves or changes in water level, which may be caused by opening or closing dams.
- If a heavy rain is expected, the boats should be stored upside down. Rest the gunwales on supports (logs or picnic tables) not on the riggers or life jackets.
- If this is not possible, remove the riggers and rest the boat on the gunwales.

Rowing on Rivers with a Current

Row in a current only if it is totally safe.

- When trying to cross a flowing river, use the current to help where possible. If the current is strong enough and you are able to place the boat appropriately, turning around may be achieved by the action of the current alone.
- When rowing upstream, row close to shore, then with the waterside oars holding water, allow the bow to turn into the current so that the stern swings into still water near
the shore. The current may then carry the bow right around without another stroke.
- When rowing downstream, aim the bow into calm water near shore while the stern is in the current. The current should now carry you around without another stroke.

Take care that you do not inadvertently execute one of these manoeuvres when drifting downstream! When drifting, try to keep the bow pointed ready to row at all times. Avoid drifting downstream broadside.

Rowing on Large Lakes or Coastal Rowing

- Always watch for signs of changing weather and developing storms. When possible, keep close to shore. Beware of getting close to a lee shore, the wind could blow you onto the shore, causing damage to the boat and potentially injuring the crew.

Be aware of tides and consult tide tables if rowing is on large open water.

Canadian Information is here: https://tides.gc.ca/en/tides-currents-and-water-levels
International information: https://www.tide-forecast.com

Salt Water Corrosion

Salt water is corrosive to many metals. Wash down your boat with fresh water after rowing in salt water, paying attention to all metal parts.

Locks

Locks present a set of hazards to rowing boats. A boat going through locks must always have at least one experienced rower on board who has gone through locks before.

- The water level can change rapidly by 2 – 15 metres or more;
- When a lock is filling, strong currents may be generated;
- Rowers must hold onto the lock wall or another boat while the lock is filling or emptying. Canadian locks often have rubber covered vertical cables extending from the top of the lock wall to the low water line to allow you to hang on.
- Rowers may have to ship their oars on one side of the boat in order to be accommodated. This makes for some instability.
- To use a lock confidently, you should have a boat hook and a paddle aboard.
- Row into the middle of the lock and then approach a wall. The bow person should be first to grab one of the cables. The coxie should grab a cable with the boat hook and pull the boat to the wall.
- Manoeuvre the boat forward or back to leave room for other boats along the wall always having 2 people holding on.
- When entering a lock in the upstream direction, two people must hold the boat- one at the bow and one at the stern. The current caused by the filling of the lock can sweep the boat away from the wall.
- Sweep blades often cannot be angled parallel to the boat due to the backstay. The wall-side blades may have to be removed before the boat can approach the wall. Use of a boat hook is advised;
- If the locks are congested, several boats may have to lie alongside each other rather than directly against the lock wall;
- Respect the power of the current filling the lock;
- Take care to hold the boats securely to avoid damage;
- Do not catch the riggers or blades on ladders, or get them caught on cracks in the wall;
- Never tie the boat to anything in the lock.