



FORT LANGLEY CANOE CLUB
DRAGON BOAT • KAYAK • OUTRIGGER • VOYAGEUR

Fort Langley Canoe Club Dragon Boat Steering Manual

Revised October 2018

Fort Langley Canoe Club Dragon Boat Steering Manual

Table of Contents

Table of Contents	1
Forward	2
FLCC Steering Accreditation	2
Steersperson Responsibilities	4
Boat Commands	5
Preparation Prior to Departing Dock	6
Leaving the Dock	8
Steering a Boat in Practice	8
Docking – Fort Langley	11
Mooring the Boats	12
Steering in Freshet – FLCC Rules	13
Navigation in Freshet Current	15
Emergency Situations - Man-Over-Board, Capsizing and Swamping	17
Emergency Pull-out Maps and Locations	19
Boating Right-of-Way	21
Known Water Hazards in the Bedford Channel	23

Fort Langley Canoe Club Dragon Boat Steering Manual

Forward

This steering manual provides essential information for anyone taking on the responsibility of steering a dragon boat (DB). Reading the manual carefully ensures an understanding of boating rules and Fort Langley Canoe Club (FLCC) safety guidelines and policies.

As a steersperson in the FLCC it is imperative that you understand how to maneuver your boat in the changing conditions of the river and to do so with the safety of your crew as your first priority.

FLCC is fairly unique in that we paddle on the lower reaches of the mighty Fraser River where the current varies hour by hour and day by day. Fort Langley is approximately 64 km from the mouth of the river but the river only drops about 2-1/2 meters in that distance so the ocean tides affect our water level and current. For much of the year the current is relatively slow but the water level can vary by up to 2 meters during the course of a day, particularly during freshet.

FLCC Steering Accreditation

FLCC applies a graduated approach to the training and assessment of DB steerspersons. The purpose of this approach is to ensure that the safety of all club members is uppermost in the steersperson's mind and that the operation of a dragon boat follows all club policies and rules.

There are three levels for steerspersons.

Level 1 (Trainee)

Must have an assessed, level 3 steersperson on board who is responsible for the crew and equipment. The assessed, level 3 steersperson must position themselves at the back of the boat near the trainee so that they are available to take over from the trainee if needed. Once the level 3 steersperson determines the trainee has sufficient experience and skills to handle the boat the level 3 steersperson may position themselves elsewhere in the boat.

The level 1 Steersperson must learn or do the following:

- Canada Safe Boating Guide (Online at <http://www.tc.gc.ca/media/documents/marinesafety/TP-511e.pdf> and free at ICBC Driver's License Office)
- Rules of the water
- Safety gear required
- Safety on the dock – Safe loading and unloading procedures
- Verbal communication and command of the crew

Fort Langley Canoe Club Dragon Boat Steering Manual

- Leaving and returning to the dock
- Basic steering techniques
- Balance
- Knowledge of hazards in the channel and river
- Steering in current
- Weather assessment
- Mooring skills
- Freshet rules
- Incident handling – man-over-board, swamping, capsizing, reporting
- Attend the FLCC safety meetings
- Housekeeping and security

Level 2

The level 2 steersperson must:

- Have successfully completed the online steering quiz
- Have undergone an On-Water Steersperson Assessment by a designated FLCC steersperson assessor
- Know and understand all steering and safety responsibilities from level 1

A Level 2 steersperson can:

- Steer for an experienced crew without a level 3 steersperson onboard

The Level 2 steersperson must learn or do the following:

- Improve proficiency of skill in level 1
- Improve confidence in commanding the boat
- Gain freshet experience and learn to use the current to maneuver the boat
- Attend a freshet clinic when offered

Level 3

To move from a Level 2 to a Level 3 steersperson the candidate must:

- Make a request by contacting the Dragon Boat Steering Coordinator to undergo an On-Water Steersperson Assessment which will be conducted by a designated FLCC steersperson assessor.
- Have completed one season of regular steering as a level 2 steersperson and demonstrate competence. One season of regular steering is defined as steering a

Fort Langley Canoe Club Dragon Boat Steering Manual

minimum of once per week for a recognized FLCC DB team or for drop-in during the DB season, April to September or an equivalent period of time.

- Demonstrate confidence in commanding the boat

Upon recommendation, a Level 3 steersperson can:

- Steer for inexperienced adult and youth
- Train/mentor new steerspersons

Steersperson Training for Accreditation

FLCC Dragon Boat (DB) Steersperson Training It is the responsibility of each DB team to ensure their steersperson is FLCC trained/assessed. FLCC needs more DB steerspersons so the club encourages members who are interested to contact dbrep@fortlangleycanoeclub.ca to arrange to try it out.

Once a member decides to train to be a DB steersperson:

- Read the FLCC Dragon Boat Steering Manual on the club website (under DB Steering) to become familiar with the many important aspects of being an FLCC DB steersperson, including the graduated process the club uses in the training and assessing DB steerspersons.
- Do the DB Steersperson Quiz (also on-line under DB Steering) to show an understanding of the information in the DB Steering Manual (bring any questions to your trainer).
- Print out a Steersperson On-Water Skills Checklist which is to be carried to all training sessions. This form lists what the trainees need to learn and then demonstrate to show their knowledge and ability. The trainer(s) will use this form to keep track of what has been covered and what still needs to be done. The completed form(s) are to be given by the trainee to the club assessor at the time of an On-Water Assessment.

Once a prospective steersperson (trainee) is ready to be trained on-the-water (usually after consultation with team captain, coach and steersperson to confirm training during practice times) the trainee should:

Contact the DB Steering Coordinator through the club website and specify:

- The trainee name and contact information including steering experience, if any, to date
- The team name and practice schedule, and the existing steersperson, if any.
- The team captain's name and contact information,
- When the training process is to begin (after team consultation noted above)

Once the DB Steering Coordinator has this information, the Coordinator will send a message to all Level 3 steerspersons on the DB Coordinator's roster of trainers, asking for trainers for the specific day and time requested.

Fort Langley Canoe Club Dragon Boat Steering Manual

Once Level 3 steersperson trainer(s) have agreed to take on this training, the coordinator will advise the trainee and team captain of the name(s) of the trainer(s) and the dates that trainer will be at practice to train. This email will also be sent to the trainer(s) to confirm the training day and times as well as to provide email contact information to both trainee and trainer(s) to ensure they can connect to confirm training, especially if training may be affected due to work/illness.

Training will continue during regular team practices until the trainee feels comfortable as a steersperson and can demonstrate the basic steering skills. The aforementioned On-Water Skills Checklist is to be completed by the steersperson trainer and kept by the trainee at each training session.

Once the trainee feels ready to take the On-Water Assessment, required to move to the next steering Level, the trainee should contact the DB Steering Coordinator through the club website and ask for the assessment. **ONLY THE TRAINEE MAY MAKE THIS REQUEST.** This requirement is intended to ensure that the trainee feels comfortable and ready for an assessment of her/his skills. The Steersperson On-Water Assessment document is on-line so the trainee can see what to expect during the assessment.

Steering Re-Assessments:

It is the policy of the club that all Level 2 and Level 3 steersperson must be re-assessed by a designated FLCC Assessor within five (5) years of their original assessment and once within every five (5) year period thereafter. Failure to participate in such a re-assessment will result in the loss of the Level 2 or Level 3 steering designation until such time as a re-assessment is completed.

Re-assessments will be scheduled by the Dragon Boat Steering Coordinator in consultation with the steersperson requiring the re-assessment.

FLCC Steersperson Assessors: will be designated by the Dragon Boat Representative and must have the following characteristics:

- Strong communication skills and a supportive personality
- Ability to listen patiently and have a calm demeanor
- Possess a firm but fair approach when mentoring/assessing others
- Follow all club rules and policies
- A personal commitment to safety
- The respect of others in the club: coaches, teams, fellow steerspersons

Criterion for selection as a designated FLCC Steersperson Assessor will include the following:

- Already a Level 3 steersperson with three (3) years' experience and a clean safety record
- Participation in club activities, clinics and special events
- A demonstrated willingness to assist the club generally

Fort Langley Canoe Club Dragon Boat Steering Manual

- Experience in mentoring new steerspersons

Steersperson Responsibilities

SAFETY FIRST!

The steersperson is responsible for not only steering the boat in the right direction but also for the safe operation of the dragon boat and for the safety of everyone onboard. This requires knowledge of safe boating practices.

All responsibilities are the steersperson's, however, there must be a second in command in order to take control if the steersperson goes overboard. This person can be the coach, caller or captain and must be determined before leaving the dock. This person must be able to take command of the boat and maneuver the boat without the steersperson.

A backup steersperson on board is highly recommended.

The steersperson is responsible for:

- The safety of the crew
- The safety of the boat
- The safety of others on or in the water

Management

- Know how many people are on the boat
- Assign everyone a buddy, ensuring they know what to do in case of emergency
- Know who are the anxious or non-swimmers
- Know if anyone has a pre-existing medical condition
- Identify novice paddlers
- Be in command of the boat
- Be aware of the hazards in the channel

Boat Commands

Fort Langley Canoe Club Dragon Boat Steering Manual

Make sure that you know the FLCC commands and that your crews know those same commands. This will ensure that you can steer with any crew and they will be able to respond to you without hesitation. Communications need to be clear and the crew needs to be quiet. These communications are not requests but **COMMANDS**. Practice all calls and teach your crew what you expect when you use them. **USE YOUR DRILL SERGEANT VOICE!**

Bumpers/Fenders in/out – bring bumpers/fenders in or out of the boat for docking or coming alongside another boat.

Paddles up – Paddles raised, ready to move into the first stroke together.

Take it away – Start paddling, following the stroke's lead.

Let it run – Stop paddling, paddles placed across the lap, let the boat glide forward on its own momentum.

Hold the boat – Paddlers plunge blade vertically into the water, perpendicular to the gunnel and brace with their body to stop the boat moving forward or back.

Hold hard – Paddlers drive their paddle down into the water doing a back stroke and then hold firm vertically in the water. You may need to command back paddle.

Brace (the boat) – Paddles out flat and just below the water's surface to stabilize the boat, used when crew members are moving in the boat or if a very big wave/swell is about to hit.

Prepare to back paddle – Paddles held out of the water prepared to back paddle.

Back it down or Back paddle – Slowly paddle in reverse to back the boat up. Paddlers in time, based on front stroke. Steersperson/caller/coach may count slowly for timing.

Walk it back/up – Have one side move the boat back or up the dock using their hands.

Draw left or Draw right – Paddlers reach out sideways to pull water towards and down under the side of the boat. If stopped, the opposite side should balance for stability.

Pry left or Pry right – The opposite of draw. Paddle is inserted beside the boat and water is pushed away from the boat at 90 degrees. May use gunnel as a fulcrum point.

Check (for drift) – to prevent the boat from drifting sideways (used mostly at the start line before a race). Paddles are in the water with the blades running parallel to the boat and the shaft is held against the gunnel.

Other important terminology:

- **Port** – Left side of the boat

Fort Langley Canoe Club Dragon Boat Steering Manual

- **Starboard** – Right side of the boat
- **Bow** – Front of the boat
- **Aft or Stern** – Back of the boat
- **Lines** - the ropes attached to the boats
- **Spring lines** – long lines attached to bow and stern
- **Bow and Stern lines** - shorter lines attached to the bow and stern

Preparation Prior to Departing Dock

The steersperson should wear proper clothes for the water and the weather. Shoes with good grip help maintain balance. Sunglasses (secure enough to stay put if one falls in the water) and a brimmed hat are helpful on sunny days and a toque / wool hat, gloves, coat and pants on cold days. **The steersperson must not be under the influence of drugs or alcohol.**

The steersperson should make an assessment of the weather and river conditions in consideration of the ability of the crew. A qualified steersperson has the responsibility and authority to ensure that all water exercises be conducted in a safe manner. A steersperson must recognize his/her and crew limitations and avoid putting the crew at unnecessary risk.

WHEN IN DOUBT . . . DON'T GO OUT!

Before going down to the dock:

- Make sure all paddlers are current members of the club or have completed drop-in waivers.
- Teams should be lined up before coming down to the dock.
- Ensure required minimum number of paddlers for current conditions.
- Ensure that all PFDs are approved by Coast Guard, Transport Canada, Fisheries and Oceans Canada; or any combination of the above, and properly fitted and done up: on the ramp, on the dock and in the boat.
- Assign duties to the crew: lines-people, bailing, boat preparation.
- Know how to get a person out of the water onto the dock using ladders at the west ends of the three dock fingers.

Before leaving dock:

- Check the condition of the tiller, tiller arm and boat in general. Do not use faulty or unsafe equipment. Report to Dragonboat Coordinator any need for repairs.
- When standing in the back of the boat – make sure the standing area is clear of debris.
- Check the departure area for debris in the river, bridge jumpers and other boats.
- Be sure that boat is loaded properly. (weight distribution and number of paddlers)

Fort Langley Canoe Club Dragon Boat Steering Manual

- Make sure that you have the safety gear (cell phone in watertight case, throw-bag, 2 bailers, noise-maker) on board.
- Brief the crew on safety procedures.
 1. Steersperson is in command unless overboard or incapacitated.
 2. Identify back-up steersperson.
 3. Identify who will be in charge in case the steersperson goes overboard if there is no backup steersperson.
 4. Ensure throw-bag is positioned by someone who is proficient in its use.
 5. Identify pointers fore and aft as well as port and starboard in case someone goes overboard.
 6. Identify person to retrieve the tiller should it be necessary.

Minimum Number of Paddlers

FLCC requires a minimum number of experienced paddlers in each boat before being allowed out on the river. Weather and water conditions must be considered when using these rules. Fast and high water also require you to consider the weight of the normal crew complement. Overloading for the conditions may result in the boat taking on water and swamping. It is the responsibility of the steersperson to ensure that the crew always complies with the minimum and maximum loads on the boat.

Boat	Minimum Non-Freshet mostly experienced paddlers	Minimum Freshet mostly experienced paddlers	If Inexperienced Paddlers
Millennium or 6/16	12	16	add 4 experienced paddlers
BuK	10	14	add 4 experienced paddlers
DB 10	6	8	don't go out

Leaving the Dock

- Judge the speed of the current and observe whether it is flowing downstream or upstream.

Fort Langley Canoe Club Dragon Boat Steering Manual

- All mooring lines should be stowed in the boat out of the way and the dock side crew should be holding onto the dock.
- Do not back away / push off from the dock until you determine it is safe. Then signal the drummer/caller that you will be leaving the dock.
- Call for quiet (***“Listen Up”***).
- Call for ***“Bumpers/fenders in”***.
- Take your time and be predictable to other boats, giving other boats the clearance they need.
- Once the steersperson has decided they may turn control of the practice over to the caller/drummer/coach.

Steering a Boat in Practice

Stance – Body positioning

For optimal stability, feet should be at least shoulder width apart to give stability both fore (front) and aft (back) and side to side, keeping your right foot forward and the left foot back. Knees should be slightly bent and flexible, back straight, hips and shoulders square (except when turning the boat. To steer well you must learn to establish a stable stance so you can withstand front and back as well as side forces. This helps you utilize the whole steering platform to maximize the range of motion you have with the steering tiller.

Hands and Arms

Hold the “T” with the right hand as a paddle, left hand on the shaft near your left hip. The blade should be vertical and at least halfway below the waterline. Right hand should be near chest height but will depend on the steersperson’s height and other factors. The tiller bracket should be positioned one-third of the way up the tiller. This will maintain proper leverage on the tiller required to steer without force and exertion of the steersperson.

Stand Up

Many first time steerspersons tend to crouch down because they are worried about losing balance or falling out. To see where you are going and what your paddlers are doing and to have complete control of your boat, it is best to remain standing; **do not sit down to steer** – you will not have the visibility to see ahead or around you.

Balancing the Boat

With the paddlers sitting up, looking forward with their hips against the gunnels, check for balance. Place forward foot slightly left or right as required to balance the weight of the boat. Cooperate with the drummer/coach to balance the boat. If paddlers need to switch sides to balance the boat see: **Switching Positions of Crew in the Boat** below.

Fort Langley Canoe Club Dragon Boat Steering Manual

Determining practice locale

In consultation with the coach, the steersperson will ascertain the best area to practice.

Under Way

Stay closer to the shore for potentially stormy conditions. Consider the wind and water conditions, e.g. go out against the wind so that if the wind increases, you can return with the wind to help push you back.

Forward Paddling – Going Straight

To go straight, start with the tiller straight back with the T-handle straight up and down. When the boat starts to turn off course just a foot or so, make a minor correction by tilting the tiller (twisting the handle) as needed to slant it and if needed, push out from you or pull back towards you a few inches to make the boat turn back to straight. Once you start to turn, the boat will tend to continue to turn in that direction. Stop the turning maneuver early enough to allow the boat to drift back to the desired course before going too far in the opposite direction.

A common beginner's mistake is to over-steer, moving in a snake-like manner down the course. While practicing, learn how the tiller and boat react differently at different speeds. (Slow – little reaction; fast – a quick reaction requiring a lighter touch.) Practice adjusting the depth and angle of the tiller to determine its effect on steering and compare pushing or pulling the tiller versus rotating the tiller to a slanted position to steer. Another common beginner's mistake is to watch the tiller too much. Try to make yourself look ahead (down the course) while feeling the position of the tiller. Practice steering close to another dragon boat, choosing a landmark on shore for the course. Until more experienced, try to leave a minimum of 3 meters between boats. Put safety first – do not hesitate to command ***“Let it run”*** or ***“Hold the boat”*** in order to avoid a collision. Ignore calls on other boats. Your focus is and should remain on your boat's course and for other boat traffic or weather conditions that require changing course.

Making a Turn

To make a small adjustment to turn while moving, slant the handle as needed, the top towards you to turn right and away from you to turn left. To make a bigger turn, pull the handle towards you to turn the boat to the left or push the handle out from you to turn right. (Practice it so you don't have to think about it – like driving a car). Try to feel the tiller's position while looking

Fort Langley Canoe Club Dragon Boat Steering Manual

down the course so that you avoid turning the boat too far. To turn faster while the boat is moving, have the front 3-4 benches on one side do a 45 degree draw stroke.

To turn while the boat is stopped, stroke the tiller several quick strokes towards you or away from you to rotate the boat or have the paddlers help by having the first 3-4 front benches on the side you want to turn towards do a 90 degree draw stroke and the back 3-4 benches on the opposite side do a 90 degree draw stroke. Help the timing by calling out the stroke numbers. Quicker yet is to use both methods in combination.

Handling Waves and Wind

The best course of action is to maintain vigilance to avoid other boats and their wakes. When unavoidable, small waves are best handled at no less than a 45 degree angle from either bow or stern. Larger waves or wake should be aligned closer to 90 degrees to the bow or stern. Going straight on at the waves will help to prevent the boat from being pushed sideways as the wave crests and the boat drops into the trough between the waves. Being pushed sideways so that oncoming waves crest over the freeboard is a scary situation. Speed helps maintain boat stability, so call for paddlers to ***"Paddle through it!"*** so paddlers know that wake or waves are coming.

One of the problems with getting hit from the side by a wave is the shifting of the paddlers in the boat from one side to another. This is especially an issue with a boat that does not have a centerboard which can be used by the paddlers to brace their inside legs. Without a centerboard the paddlers can brace against each other. If water does come aboard, have midship paddlers bail, while bow and stern paddlers continue to paddle.

In windy conditions, whenever possible, head either directly into or away from the wind. A steersperson should determine where there is shelter from the wind, usually along one shore and use it if possible. If the wind increases considerably while you are out, making it impossible to return to the regular dock, turn the boat to go with the wind and head for the closest dock or even shore if necessary.

Back Paddling

Change your stance. Turn your left foot out at an angle instead of straight ahead so you can turn partially backwards to see where you are going more easily. Be especially cautious to avoid the tiller dipping too deep, as it may cause you to lose control of the boat and possibly even break the tiller arm or bracket. ***GO SLOW!*** Keep the tiller out of the water as much as possible, but, if turning is needed, use shallow, short strokes. If the tiller binds due to water pressure on the blade, have paddlers paddle forward hard to release the pressure. You have no control when this happens, so act quickly. If you have to paddle backwards a longer distance, look backwards, but regularly check the bow to avoid collision or grounding and warn the crew if the boat will come close to an obstacle on either side. Do not hesitate to call for ***"Hold the boat"***.

Fort Langley Canoe Club Dragon Boat Steering Manual

Switching Positions of Crew in the Boat

Command the paddlers to ***“Brace (the boat)”*** before switching sides. Ensure paddlers remain in their positions until they are instructed to move so everyone is not moving at the same time. When they are not in the process of moving, they are bracing. Instruct paddlers to move slowly and stay low. For pairs sharing a seat, one paddler must stand, so instruct them to hold the shoulders of the paddler(s) in front of them. While they are standing their seat partner will move across. Instruct both paddlers to move to the middle first then at the same time both move to their new side to keep the boat balanced. For paddlers without bench mates, they can change simultaneously, first moving together to the centre before the others move, then to the other side. The steersperson can help by doing a 1-2-3 count. Remind the paddlers to brace again after switching their bench until all position changes are finished. Tell the paddlers when all seats have switched to release the brace and they can adjust seat pads and waterbottles.

Steering in low water

Be aware the bank on the island side of the channel is extremely shallow in low tide and comes a fair distance into the channel near the bridge. If paddlers hit bottom they can get hurt! Make sure your paddlers are aware of the possibility of low water issues when in those areas and have them call out if they touch bottom with their paddles. You can then make the necessary course adjustments to get your boat out of the shallows.

Docking – Fort Langley

TAKE YOUR TIME. DO NOT RUSH. When you leave the docks you must check for debris under the bridge and the strength and direction of the current as this knowledge is needed for approaching the docks safely. Check if the current or wind will be pushing you into or away from the dock. It is recommended to approach the docks coming under the south side of the bridge, watching for debris that may be caught under the bridge.

If there are boats coming in or leaving the docks, hold the boat and wait for a spot on the dock. Take a good line into the dock using your paddlers to slow the boat. Be sure others know your intentions. Approach the docks very slowly in a controlled manner. Use the current to help you bring the boat into the dock - this is especially important in freshet. The angle of the boat and speed of the river are used to balance the approach to the dock. A good demonstration of this maneuver can be seen on the FLCC website under the Safety Heading - Big Boat Steers Clinic.

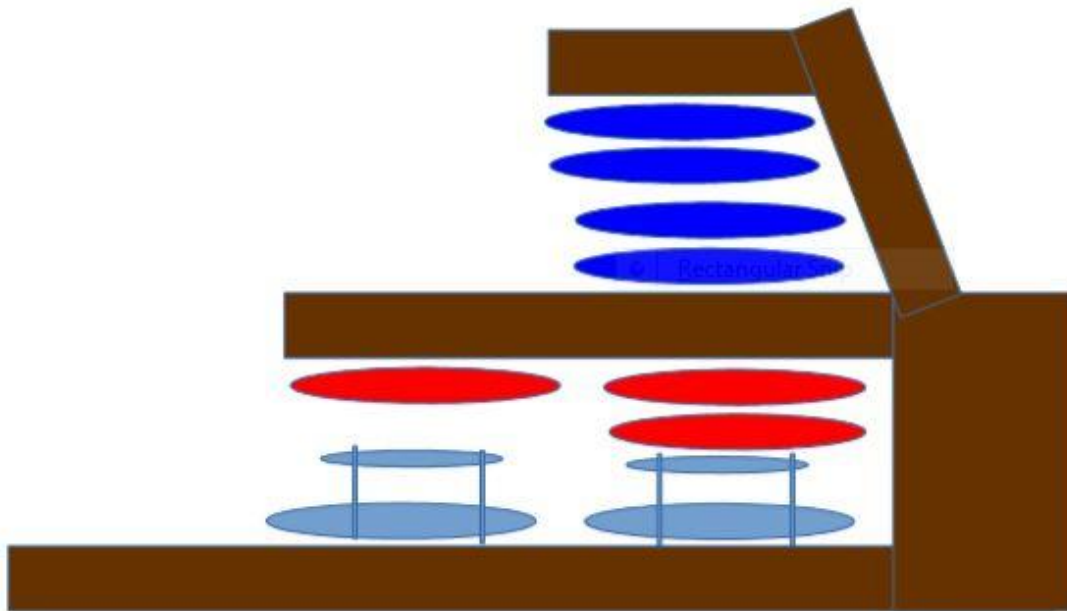
A good steersperson should arrive at the dock at a slow enough speed that the boat stops in the appropriate position without needing a hard hold.

Fort Langley Canoe Club Dragon Boat Steering Manual

Mooring the Boats

Ensure the bumpers/fenders are properly positioned, hanging down with the top of the fender at the gunnel, on the side of the boat that come into contact with another boat. All boats are to be moored behind a finger for protection from wake. If needed, use the long lines (Spring Lines) attached to bow and stern to line the boat into mooring position - this is, at least, a two person job. Cleat the bow and stern lines loosely. Cleat the bow spring line to the dock cleat at the stern end of the boat and the stern spring line to the dock cleat at the bow end of the boat. These lines need to be taut to keep the boat in place. Ensure there is sufficient space between the bow and the front dock, and that the tiller arm will not hit the dock in waves. The black cable is fed through the cleat and locked to itself.

Mooring locations: **Dark blue (6/16 or Millenium)**, **Red (Buk)**, **Light blue (OC6)**



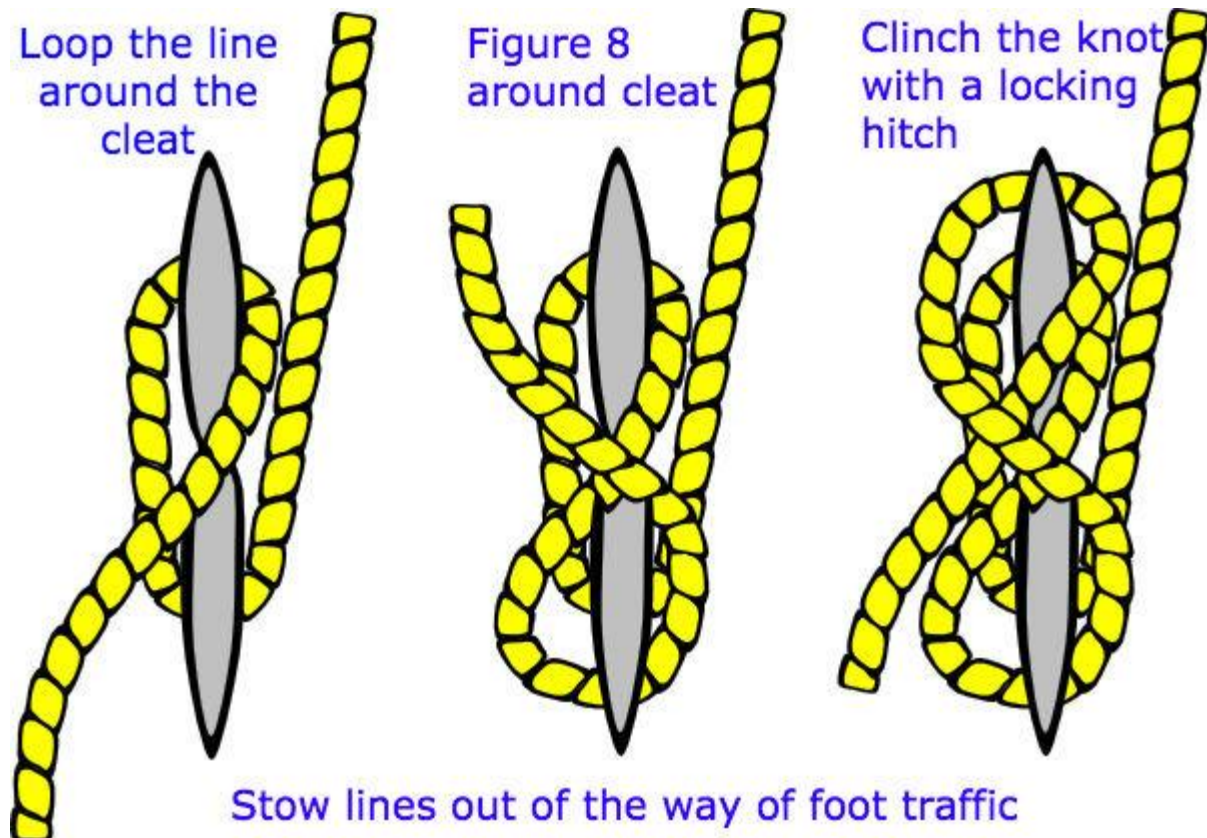
Ensure that boats are moored in their assigned dock location. All boats must be protected from wake/wave action by fingers.

- 24 seat 6-16s and Millenium (shown bright Blue) between North and Middle
- Fingers
- 20 seat BUKs (shown in red) on south side of Middle Finger. Be sure to move BUK into available upriver position to leave return dock space for other boats
- Outriggers (in light blue) on north side of South Finger
- DB10s and coach boats on south side of South Finger

Fort Langley Canoe Club Dragon Boat Steering Manual

Do not assume boat is to be moored where it was before your practice

Cleats are used to provide quick release of lines so do not over-wrap the lines, particularly in winter when lines ice-up.



Steering in Freshet – FLCC Rules

The FLCC website and/or newsletter will announce when freshet rules apply. Be aware conditions change quickly at this time of year due to fast moving water and the debris carried along with it can come up on you quickly. If in doubt if freshet has not been called but the water is running high and fast follow the freshet rules.

Leaving the Dock - Freshet



See minimum numbers of paddlers required for freshet under **Preparation Prior to Departing Dock** above. FLCC policy regarding leaving and returning to the Canoe Dock has been determined. All boats to leave from the north side of all docks (A, C, E) with the one exception that you may leave from the south side of the North Finger (B). If your boat is on the south side

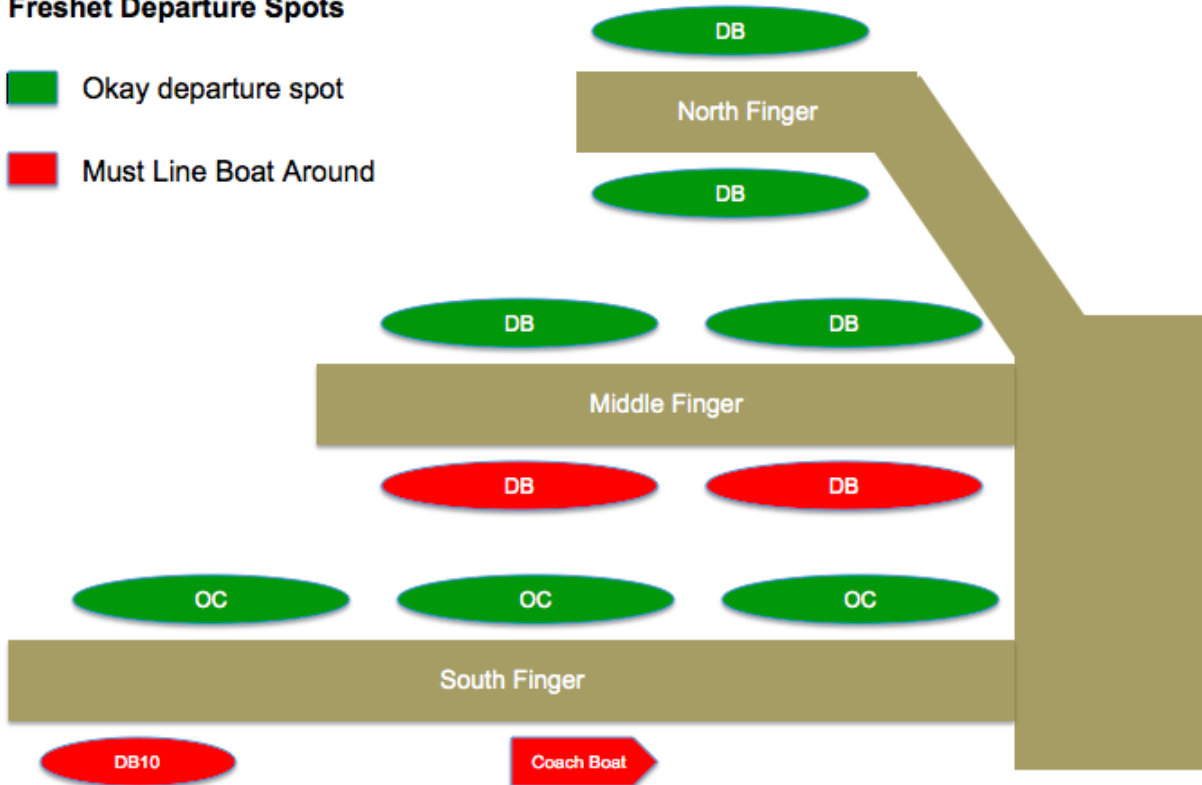
Fort Langley Canoe Club Dragon Boat Steering Manual

of the Middle or South Finger it must be lined around to the north side of the finger before loading.

This will require cooperation from all teams: teams need to depart the docks in a timely manner so as to allow boats to be lined around.

Freshet Departure Spots

-  Okay departure spot
-  Must Line Boat Around



When leaving the dock ensure the current does not push the boat too close to the bridge. If at the east end of the Middle Finger walk the boat back along the dock in a controlled manner. There is no need to backpaddle or you will be moving too quickly backwards towards the bridge. Keep as much distance as possible from the bridge. In strong current one method to leave the dock from the north side of the finger is to walk the boat down to the west end of the dock, then hold the stern close to the dock and not let it move closer to the bridge by looping the short stern line around a dock cleat and request seats 2 and 3 to **“Push off from the dock.”** The bow is turned out by the current as the stern is held tight to the dock. As soon as the bow is heading away from the dock and will clear the debris deflector, the stern line is slipped off of the cleat and the command is given **“Paddles up; Take it away”**. The boat has then safely left the dock with very little effort from the crew. See diagrams.



Holding stern close to dock. Seats 2 and 3 push off

Fort Langley Canoe Club Dragon Boat Steering Manual



Note stern line looped around dock cleat



Stern line is released when bow clears dock / debris deflector.



Once clear, “Paddles up – Take it away”

During Freshet
always leave and
return to the dock
heading upriver.

Do not turn the
boat between the

bridge and the red buoy as you could be pushed sideways into the
bridge

Fort Langley Canoe Club Dragon Boat Steering Manual

Navigation in Freshet Current

During the freshet, although the water level is much higher, it does not vary much due to the tides but the current may be up to 7 km/hr. If we paddle our boats at a little over 10 km/hr we see that the current can have a major effect on our boat speed, reducing our upstream speed to maybe 3 km/hr but rushing us downstream at 17 km/hr. However, the current is not constant across the entire channel; we can find slower currents next to shore, on the inside shore where the channel curves and in the lee of rock piles, boat houses, etc. The current may speed up on the outside shore where the channel curves and where the current is forced to bend around islands, etc.. The river never stops coming at you so you cannot develop tunnel vision and lose sight of what you are doing as it can result in a rapid loss of position and an ill advised ferry angle into stationary objects which is extremely dangerous to crew and equipment. The current will be constantly pushing boats downriver and creating turbulence around docks and other stationary objects - a steersperson must learn to use this to their advantage. Additionally, each boat will perform differently in the water as the loads within the boat change. A steersperson needs to understand the performance characteristics of their boat. Improper steering techniques may result in rotational capsizing or sudden surges or losses in position in the river.

Once you leave the dock you will be heading upstream against the current. Steer towards the middle of the channel to get around the dock debris deflector while being aware of the effects of the current. You will feel more pressure on the tiller when crossing the current as the water will be pushing on the bow to make the boat turn downstream. Always look ahead for deadheads and debris which can be stuck in the channel or heading your way from upstream.

When steering in a current it is very important to anticipate what your course will be so you can maneuver safely away from other watercraft and do not get caught trying to turn without room to do so. You need to understand how the current can affect your turning radius. If you wish to turn to head downstream, when leaving the dock area, you must go past the red buoy before turning the boat in order to leave room up-river of the bridge. To pass under the bridge, heading downstream, pick a bridge arch to go through, and line up well upstream for a straight run through the centre of the arch, keeping an eye out for other boat traffic and any debris which may be caught under the bridge. Watch for eddies (disturbed swirling water) which can indicate submerged or partially submerged obstacles.

The bridge constitutes a major hazard by restricting overhead clearance, generating extreme turbulence in the vicinity of bridge footings or trapping debris and reducing the opening available between footings. Look at the bridge pilings to get an indication of water speed and to note any debris that may be caught up under the bridge. Always pass under the bridge centered between the pilings with your boat straight to ensure the boat does not ferry into a piling. It is recommended that steerspersons not take the boat through the most northern full arch. To return to the dock from upriver, pass under the bridge on the north side of the river, then turn downriver of the bridge heading upstream passing under the bridge on the south side to arrive

Fort Langley Canoe Club Dragon Boat Steering Manual

back at the dock facing upstream. Once unloaded, if required, line the boat to a mooring position and secure it.

Emergency Situations - Man-Over-Board, Capsizing and Swamping

A crew must be prepared for emergency situations.

- Ensure the safety equipment is on board and the crew know what to do with it.
- Know their “buddy”.
- Identify non-swimmers and anxious swimmers. Before leaving the dock ensure all paddlers know the non-swimmers or anxious swimmers to give them special attention in case of emergency. Other paddlers are not to try to physically help a nervous paddler in the water as they may be pulled under themselves - they will have a PFD to keep them afloat - talk reassuringly to them - can give them a bundle of paddles to hold
- Know the pullout spots in the areas you are paddling
- In case of emergency, immediately assess crew for injury or hypothermia and call 911 if needed. This can be done before returning to the shore or dock so the ambulance can meet the crew upon arrival. Reassess crew frequently.

Man-Over-Board (MOB)

If someone has fallen out of the boat, maneuver alongside them amidship where there is more room and have the MOB upcurrent of the boat to prevent the boat from injuring the MOB by pushing them against an object in the water. If the MOB is behind the boat it is faster to back paddle than to go forward and turn back. If the MOB is off to the side of the boat, it is much faster to back the boat up first to get behind the MOB then turn as you move forward, than to move long distances with draw strokes. In a faster current always paddle downstream of the swimmer and approach heading upstream so you have better control of approach. Once the MOB is alongside the boat some of the crew needs to endeavour to get the MOB into the boat while the rest of the crew balances the boat. If it is not possible to quickly get the MOB in the boat, get as much of the MOB out of the water, then while several paddlers hold the MOB the rest of the crew will paddle to the closest open shore where the MOB can board.

Here are options for getting a MOB back into the boat:

Fort Langley Canoe Club Dragon Boat Steering Manual

- If the MOB is conscious and strong enough to partially lift themselves into the boat, first have the crew on the opposite side scoot sideways towards the middle causing the gunnel on the MOB's side to be closer to the water. On a count of 1-2-3, the paddlers on the opposite side move back to their original positions against the gunnel while the MOB pulls himself/herself up into an empty bench in the boat.
- If the MOB is conscious but unable to get in on their own, have crew members grab the MOB by the PFD and warn them of the following maneuver. First push down on the MOB, then using the momentum of the PFD being pushed up by the water, pull them into the boat.
- If the MOB is unconscious, have crew members turn the MOB's back to the boat, kneel down and grab the MOB by the PFD and then pull them up and over the side, falling backwards into the boat with the MOB.
- Spring or throw lines can be made into a loop to hang from a seat or centerboard for the MOB to step in to assist getting into the boat.

Capsizing

It is a widely held belief that a 6-16 or Millennium cannot be capsized but it has happened on rare occasions. A BuK or DB10 is more easily flipped so extra caution is necessary.

Avoidance is always the best approach.

- Be careful that the boat is not overloaded and is properly balanced and bailed.
- Handle waves correctly.
- Avoid excess speed when turning.
- Follow procedure appropriate for the conditions when changing positions in the boat.

Cold water can quickly become a problem so act promptly.

- The crew must stay with the boat and count off from the front to ensure no one is trapped under the boat, non-swimmers are safe, and there are no medical issues. Paddlers are to know their seat buddy, as well know who is in front and behind. Immediately after surfacing, they are to check to see if their partner is present and okay. Front pair checks on the drummer and back pair checks on the steersperson. Assign competent swimmers to assist and reassure the non and anxious swimmers or anyone that is injured. Remind everyone the boat will not sink and in most cases, the best policy is to **STAY WITH THE BOAT!** Once it is determined everyone is safe, a course of action will be determined by the person in command. If individuals head to shore on their own the rest of the team will stay in the water as they continue to look for them.
- If paddlers surface and find themselves under the boat, they need to come out in a timely manner. There is limited oxygen under a boat. A paddler can grasp the gunnel and push themselves, down and out.
- A capsized boat will be upside down. Paddlers in the water can try to push up on one side to flip it right-side up. If this is possible, then the boat will be full of water. Once the

Fort Langley Canoe Club Dragon Boat Steering Manual

boat is upright, as long as the gunnels are above the water, start getting paddlers back in the boat. This will be easier with less freeboard while the boat is full of water so get less agile paddlers in the boat first. As soon as the first paddlers are in the boat they start bailing. Continue to get paddlers in the boat to get them out of the water - it will be warmer in the boat. Keep everyone busy to stay warm. Be sure the gunnels remain above the water as you get paddlers in the boat. If a few are not able to get in the boat treat them as a MOB and pull them out of the water as far as possible then have the rest of the crew paddle to shore where the boat can be emptied and all the paddlers get back in the boat to paddle back to the dock.

- In case the crew cannot flip the boat while in the water, which is likely, non-swimmers may be pushed up onto the hull to get them out of the water, or give them paddles, which are buoyant to hold. The other paddlers in the water can swim the boat to the closest open shore, using the current to ferry the boat. Do not try to get to shore against the current. On shore the boat can be flipped then launched to paddle back to dock. If this is not possible tie the boat to ensure it is not washed downstream and phone for assistance. Keep everyone busy to stay warm.
- If the person in command determines it is best to leave the boat while in the water everyone must stay as a group. Determine a meeting place before leaving the boat, use the buddy system enroute but keep everyone close, and recount the crew at the site on land. If there is a current, be aware that the current will take everyone downriver so move with the current. Paddlers should roll onto their backs with their feet down river to see where they are heading and angle their bodies to ferry towards shore - do not fight the current. Pick a spot for landing that suits conditions.

Get familiar with the landing positions in different conditions during practices. Once on shore, re-check carefully for any injuries or medical problems. Use cell phone to call 911 if there are any medical concerns – giving them the situation and the landing position, or phone for assistance. If there are no medical concerns, phone family and friends to arrange transportation for the crew. When everyone is safe contact the FLCC executive to explain the situation regarding crew, boat and equipment.

Swamping

Normally the biggest issue with a 6-16 or Millennium is swamping, but any boat may be swamped in high waves or if mishandled. When a boat swamps, the paddlers will likely still be seated and the boat may have any level of water inside. If the water is below the gunnels have as many as possible mid-boat paddlers bail as quickly as possible while the others continue to paddle. Remember, if swamping was caused by rough water, more water may come in the boat with the next wave, so you want to get as much freeboard as quickly as possible. If the gunnels are below the water you must get some paddlers out of the boat to raise the gunnels before you can bail. Those paddlers can get back in as soon as there is more freeboard - do not leave paddlers in the cold water any longer than necessary. Determine the closest landing spot or head back to the dock. Keep everyone busy either bailing or paddling to stay warm.

Fort Langley Canoe Club Dragon Boat Steering Manual

Emergency Pull-out Maps and Locations

Emergency situations may occur when a dragonboat and crew need to pull ashore and contact Emergency Health Services (ambulance). Because the locations of suitable pull-out spots do not have typical addresses, FLCC has worked with EHS to identify suitable pull-out spots with a name and number that will identify the location to an EHS dispatcher. The emergency pull-out spots are identified on a map for FLCC paddlers.

The pull-out spots on the map are registered in the Emergency Health Services database of **COMMON PLACE NAMES**. When you contact 911 tell the operator you need an ambulance at . . . **“Common Place Names, Fort Langley Canoe Club, pull-out number xx.”**

For example, the Salmon River confluence, is “Common Place Names, Fort Langley Canoe Club, pull-out number 9.”

In **ALL** cases you will need to send someone to the nearest main road to direct emergency vehicles to the pull-out area.

If, and only if, the dispatcher is unsuccessful in pulling up the Common Place Names data use the descriptions below.

1. **McMillan Island Docks/Old Albion Ferry Dock**, North end of Glover Road at Fraser River, **9500 Glover Road (49.179067°, 122.568163°)**
2. **North End of 252nd Street** at Fraser River, Off 88th Ave **8809 252 Street**
3. **East end of Fort Langley Airport, 24599 River Road**, Private Rail Crossing, Locked vehicle gate but pedestrians gate can be opened from the inside **(49.165335°, 122.541869°)**
4. **Shore of Fort Camping, 9451 Glover Road**, Fort Campground at Brae Island Regional Park
5. **Travistock Point**, west end of McMillan Island, accessible via 9451 Glover Road, Fort Campground at Brae Island Regional Park. Only use if capsize incident as ambulance access if extremely difficult.
6. **23945 River Road** and **west end of Fort Langley Airport** Private Rail Crossing, Yellow House and west end of Airport. Not easy to use because of rip rap. Get someone to 88th Ave. **(49.165896°, 122.557033°)**
7. **Multiple locations** on Soccer Field access, un-named road between Glover Road and Gabriel Lane. Continues to 23900 Block of Gabriel Lane. Best pull-out is boat launch.

Fort Langley Canoe Club Dragon Boat Steering Manual

8. **Muench Private Dock, 10119 Houston Road or 10114 Allard Crescent.** Road extends off Allard Crescent at 10000 Block to Fraser River – Get someone up to the main Allard Crescent to direct emergency vehicles down to dock area. (**49.186306°, 122.590170°**)
9. **East shore of Salmon River at Fraser River.** Access Road is at **22969 Coulter Court**, with a locked gate. Get someone to the gate. (**49.175943°, 122.586347°**)
10. **Paddlesport Dock** – north of Lelem Café at 23285 Billy Brown Road (**49.171288°, 122.578217°**)
11. **Canoe Dock** – north end of Church Street at Fraser River. Nearest cross street is Mavis. (**49.170652°, 122.575782°**)



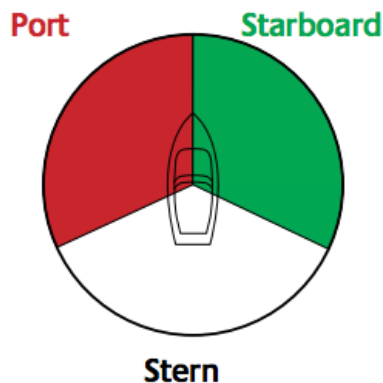
Boating Right-of-Way

Rules that deal with situations likely to occur in the Fort Langley area.

Fort Langley Canoe Club Dragon Boat Steering Manual

- Vessels that are restricted in their ability to manoeuvre (ie. tugboats towing a load and a vessel engaged in fishing have the right of way).
- In Canadian waters, a vessel crossing a river shall keep out of the way of a power-driven vessel ascending or descending the river.
- All motorized boats, sailboats and human-powered boats under 20m in length must steer clear of larger less manoeuvrable vessels.

Rules of the Road from the Canadian Safe Boaters Guide


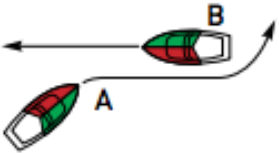

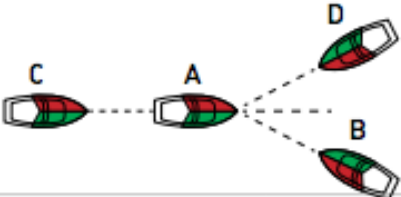
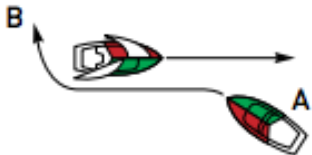


Left (Port): If any vessel approaches within this sector, maintain your course and speed with caution.

Right (Starboard): If any vessel approaches within this sector, keep out of its way.

Stern: If any vessel approaches this sector, maintain your course and speed with caution.

Fort Langley Canoe Club Dragon Boat Steering Manual

	<p>A blows one blast and alters course to starboard. B blows one blast and alters course to starboard.</p>
	<p>A keeps clear of and must avoid crossing ahead of B.</p>
	<p>Any vessel overtaking another must keep clear.</p>
	<p>A keeps clear of B B keeps clear of D C keeps clear of A and B D keeps clear of A and C</p>
	<p>A power-driven vessel keeps clear of a sailing vessel.</p>

Known Water Hazards in the Bedford Channel

Deadheads and snags come and go in the channel and all boaters must be vigilant in watching for them. Known hazards exist that do not move:

- The area of turbulence and eddies at the eastern end of McMillan Island. Navigating boats in this area may require strong paddling and steering. Use caution. Give rip-rap (large rocks for shore stabilization) a wide berth for possible rocks below the surface.

Fort Langley Canoe Club Dragon Boat Steering Manual

- The rocks on the south side of the channel at the pipeline crossing. These rocks are above the surface during times of low water. They can be quickly covered by incoming tidal activity or higher water. Avoid this area!
- The bridge pilings, docks and debris deflectors change current direction, cause turbulence and catch debris. Pass under bridge straight between the pilings. Be watchful and give docks and debris deflectors a wide berth. Be cautious.

