



**Deep Cove Rowing Club
Safety Handbook
For Coaches**

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Introduction

This handbook describes the safety policies and procedures to be followed by coaches of rowing programs conducted by the Deep Cove Rowing Club. These policies and procedures are based upon the best practices and guidelines established by Rowing Canada Aviron (RCA) and other rowing clubs. The policies and procedures have been modified to take into account the unique aspects of the Deep Cove environment.

Coaches are the principal audience for this handbook. This handbook focuses on information you need to know in order to keep your rowers safe. The information in this handbook may save the life of one of your rowers.

This handbook extends the information in the Deep Cove Rowing Club Safety Handbook for Rowers. Coaches are required to know the contents of the rower safety handbook in addition to the contents of this handbook.

If any errors are noticed, please notify the safety committee via email at safety@deepcoverowingclub.com.

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- Ben Pepa, RCM SAR: for insight into their callout and tasking process

Safety Equipment

Coach Boat

According to the Small Vessel Regulations¹, a coach boat must carry the following safety equipment for its own safety:

- a PFD or lifejacket for each occupant of the coach boat (the lifejackets in the coach bag are not to be used to satisfy this requirement)
- a reboarding device, unless the vertical height that must be climbed in order to reboard is not more than 0.5 metres
- a buoyant heaving line of not less than 15 metres in length
- a watertight flashlight or three pyrotechnic distress signals other than smoke signals
- a manual propelling device (e.g. oars) or an anchor and not less than 15 metres of cable, rope, chain or any combination thereof
- a bailer or a manual bilge pump
- a sound signaling appliance that meets the requirements of the Collision Regulations² or a sound signaling device:
 - a whistle satisfies this requirement as long as it produces a sound in the range of 180 – 2100 Hz and is audible for 0.5 nautical miles (926 metres)
- if the coach boat is operated after sunset or before sunrise, navigation lights meeting the following requirements:
 - red (port) and green (starboard) sidelights that are visible for one mile from dead ahead to 22.5 degrees abaft the beam on the respective sides of the boat
 - white sternlight that is visible for two miles in an arc 67.5 degrees to either side of dead astern
 - white masthead light that is visible for two miles from dead ahead to 22.5 degrees abaft the beam on both sides of the boat
 - alternatively, the white sternlight and masthead light may be combined into a single white light that is visible for two miles in all directions (360 degrees)

The Deep Cove Rowing Club requires the following additional safety equipment to be carried on each coach boat:

- engine kill switch on all outboard motors
- engine kill switch lanyard securely attached to coach boat operator
- first aid kit
- cloth or mylar thermal blankets

¹ <http://laws-lois.justice.gc.ca/eng/regulations/SOR-2010-91/FullText.html>, sections 204 through 207 and 215

² http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1416/FullText.html, Annex III

Normal Procedures

Qualifications

All coaches must be at least 16 years of age.

All coaches must have at least two full seasons of competitive rowing experience or rowing experience that is considered to be equivalent by the head coach.

All regular full time coaches and regular part time coaches shall have or be working towards acquiring either an RCA Learn to Row Instructor or RCA Coach certification. Equivalent certifications shall be acceptable. Other coaches are encouraged to acquire one of these two certifications.

All regular full time coaches and regular part time coaches shall maintain current certification to perform the following types of first aid:

- St. John Ambulance CPR C or equivalent
- St. John Ambulance Standard First Aid or equivalent

As of 2017, the St. John Ambulance Standard First Aid course also includes CPR C training.

Other coaches are encouraged to acquire first aid and CPR training.

All coaches that work with young rowers must undergo an RCMP background check.

All coaches and other people operating a power craft on behalf of the Deep Cove Rowing Club must have their Pleasure Craft Operator Certificate (PCOC). The power craft operator must have the certificate in their possession while operating the power craft.

A prospective power craft operator must not operate a Deep Cove Rowing Club power craft until they have received appropriate training or familiarization for the type of power craft and have satisfied the head coach that they can safely operate the power craft.

The head coach must approve all prospective coaches.

The head coach shall determine whether a new coach requires any training. The head coach shall identify the required training. The head coach and new coach shall jointly determine how this training is to be acquired and at whose expense. The head coach shall determine what restrictions are to be placed on coaching duties until such time as the identified training is successfully completed.

New coaches may require supervision until they are fully proficient. The head coach shall determine what level of supervision is required. The head coach shall arrange for supervision to be provided. The head coach shall determine what restrictions are to be

placed on coaching duties during the supervisory period. For example, the number of rowers and rowing shells being coached might be restricted.

Each coach must read both the Rower and Coach Safety Handbooks and be familiar with their contents. Each coach must review the safety handbooks at a minimum of once per year.

Deciding Whether to Row

Deciding whether to conduct a rowing session depends on the weather, water conditions, rower skill levels and available rowing shells. Coaches shall evaluate these and any other relevant factors before deciding whether or not to row.

Coaches must check the weather forecast before deciding whether to row. Numerous weather forecasts are available on the Internet. The following are especially relevant:

Civilian Forecast

http://www.weatheroffice.com/city/pages/bc-74_metric_e.html

Look for the button for the detailed 24 hour forecast.

Marine Forecast

https://weather.gc.ca/marine/region_e.html?mapID=03

Click on the map areas for forecasts. Click on the Howe Sound map area for information about outflow winds.

Forecast Winds

<http://windy.com/>

Use your mouse to pan and zoom in on the Indian Arm area.

Of primary concern are predictions for strong winds, outflow winds, poor visibility (mist or fog) and thunderstorms. Pay attention to the predicted wind speed and direction. Note how the wind is likely to change during the rowing session.

It should be noted that forecasts are prepared for Vancouver and not Indian Arm, so the forecast will only be roughly accurate. As a rule of thumb, Indian Arm is more cloudy and rainy than predicted by the forecast. Conversely winds are usually weaker than forecast, because Indian Arm is sheltered by the surrounding mountains.

Check the wind upon arrival at the boathouse. Wind blowing into the cove from the direction of Jug Island has historically been most likely to cause rough water. Other indicators of rough water are:

- The wind can be heard in the trees and branches are moving
- Flags and pennants at the yacht club are flapping briskly
- Wave action can be continuously heard on the beach in front of the boathouse

Look at the water at the outer edge of the cove. If whitecaps are present, rowing should be cancelled or restricted to the cove. Even if whitecaps can not be seen, the water outside the cove may look darker or duller than water inside the cove. There may be a discernible line separating these two regions. This is a clue that water outside the cove is rougher than the water closer in.

If the wind is blowing strongly from behind the boathouse out into the cove, be cautious. You will be looking at the backs of waves as they move away from you. They won't look nearly as bad as compared to being out in a boat looking back into the cove. Whitecaps may not be visible and they will look less serious than they actually are.

Of special concern are outflow winds (Squamish winds). These are fierce winds that flow outwards through the coastal inlets from high pressure areas in the interior of the province to low pressure areas offshore. They can arise quite quickly, often reach 45 – 55 kph and occasionally can reach 110 kph³. They are not generally that fierce in Indian Arm but the water condition can change from flat water to large white caps over a span of 5 – 10 minutes. When out on the water, the first evidence of outflow winds will be the appearance of white caps further up Indian Arm.

Rowing must be cancelled if visibility is less than 1000 metres. The furthest edge of the marina on the north side of the cove is almost exactly 1000 metres away from the boathouse. If the furthest boats moored at the marina cannot be seen clearly, visibility is less than 1000 metres.

Daylight hours must be considered when the start and end dates of rowing programs are being scheduled. The start and end dates of evening programs should be more conservative than morning programs, since an emergency will occur during increasing darkness.

When a rowing session is scheduled to occur on a given day, coaches must consider the effect of cloud cover on daylight. The table of daylight hours in the rower safety handbook assumes that the sky is clear. On a cloudy day, it will not get light in the morning until later and it will get dark earlier than shown in the table.

Rowing should be cancelled if ice is present in the cove. Ice is pretty rare. It occurs when the less dense fresh water from local creeks doesn't mix with the salt water and floats as a layer on top of the denser salt water.

If weather and water conditions are marginally acceptable, rower skill levels should be considered. It may be prudent to cancel the session if the rowers are predominantly novices. Even if the rowers can handle the conditions, they will not enjoy or get any training benefit from the rowing session if they are battered by rain, wind or waves.

³ http://www.islandnet.com/~see/weather/elements/arctic_outflow.htm

If weather and water conditions are questionable, a coach should not take out a group that has both novice and skilled rowers. The group will inevitably fragment into fast and slow sub-groups. As the only coach, you will have to keep track of two separate groups in potentially adverse conditions. If a second coach can not be arranged, the best solution is to assign mixed crews of experienced and novice rowers.

Another strategy that should be employed in marginally acceptable conditions is to use quads and doubles in preference to doubles and singles. The larger rowing shells are more capable of handling rougher water.

If weather or water conditions are marginal, rowers shall not be coerced into rowing. Rowers shall be given the opportunity to decline to row without affecting their standing in a rowing program.

One final thought ... it is far better to err on the side of caution than push conditions only to find that multiple rowing shells have been swamped simultaneously by rougher than anticipated conditions. Conditions outside the cove are always worse than what can be seen inside the cove. If you are not sure, don't go.

Preparation for Rowing

Coaches should bring the equipment in the following checklist that is appropriate for the anticipated conditions:

Equipment To Bring	When To Bring
Care or Services Card number	Always
Emergency contact telephone number	Always
Layered clothing	Always
Gloves	Late fall, early spring when air temperature below 5° C
Footwear suitable for entering water to assist with launching or retrieving shells	Always
Jacket	Before sunrise, after sunset, cool or cold weather
Rain jacket	Rain or showers are forecast
Head covering	Cold and/or sunny
Sunscreen	Sunny or light overcast
Waterproof flashing light	Before sunrise, after sunset

Coaches must always bring their Care or Services Card number with them. In the unlikely event that medical attention is needed, emergency or otherwise, the hospital or medical clinic will need this number.

Coaches should carry an emergency contact telephone number. If a coach is injured and can't communicate, police, fire or ambulance personnel will use the telephone number to notify the coach's family or somebody else who can speak on their behalf. An emergency contact telephone number can be carried on a wallet card. It can also be entered into a mobile phone by creating a contact named ICE or that has ICE in the name⁴.

Coaches do not generate heat like a rower, so they need heavier clothing compared to rowers. Because the water is an open environment, it is always colder out on the water than on the land. Dress warmer than you would if you were on land. The best solution is to wear multiple thin layers that can be added or removed to control warmth. Jackets should be constructed from a tight weave fabric to keep out the wind.

Coaches will frequently have to assist with launching and retrieving rowing shells. This necessitates wading into the water. The coach must wear footwear that can go into the water. Sandals with straps (e.g. Tevas) and shorts work well on warm days, but some type of boot is better for cooler days.

It should be noted that, in the wider rowing community, boots are considered unsafe. If the coach has to go into the water from the coach boat to help a rower, the boots will fill with water. Many coaches believe that the weight of water-filled boots may prevent the coach from getting back into the coach boat.

Sailors of larger vessels (e.g. coastal and offshore sailboats, fishing vessels) do not agree with this opinion. Sea boots are always worn on such vessels during rough weather.

A good compromise may be to use a boot that slips off easily either before going into the water or while in the water. Pant legs should not cover the boot top as they can hinder boot removal. Boots should have neutral or positive buoyancy.

On days with little or no cloud cover, sunscreen is strongly recommended. Coaches receive UV rays directly from the sun but also UV rays reflected off the water. It is not unusual for the underside of a chin or nose to get burned due to reflection off the water. A coach will burn much faster on the water than on land. For a given interval out on the water, burns will be more severe than on land.

If rowing will take place after dusk or before dawn, the coach must bring and operate a waterproof light. This is a legal requirement for the Zodiacs as they typically do not provide a good surface to mount a navigation light. Even if there already is a light on the coach boat, it never hurts to have additional lights. Lights should be waterproof, because saltwater spray and dampness will quickly destroy a non-waterproof light.

The boathouse washrooms shall be unlocked prior to rowers leaving the shore and shall remain unlocked while any rowers are out on the water. If a rower goes into the water, a hot shower may be more effective than a blanket for warming them up.

⁴ http://en.wikipedia.org/wiki/In_case_of_emergency

Coaches must carry either a mobile phone or a VHF radio on the water except during winter when both are required. If a coach does not know whether their mobile phone company provides good signal strength up Indian Arm, it would be prudent to take a VHF radio in addition to the mobile phone.

Most marine VHF radios are waterproof. Mobile phones are not waterproof. A mobile phone will be destroyed instantly by immersion in salt water. For example, if a coach enters the water to extract a capsized rower from their shell, they are likely to forget to leave their mobile phone in the coach boat. Now they not only have an emergency, they also have no means of communication. If a mobile phone will be used, it would be prudent to get a waterproof case from MEC or another retailer. Cases are available that allow the mobile phone to be operated without removing it from the case.

There are four VHF radios at the desk in the boathouse. Tune the VHF radio to channel 16 while out on the water. The Coast Guard listens for emergency calls on channel 16.

During Deep Cove Rowing Club regattas, VHF radios are used for communication. The working channel will probably be 72. The VHF radio is tuned to the working channel. If a need for Coast Guard assistance arises, the 16•9 button can be pressed to quickly switch to channel 16.

A single coach cannot safely supervise a large number of rowers and/or rowing shells in the Indian Arm environment. Between November 1 and April 30, a coach will supervise a maximum of 9 rowers in a maximum of 3 rowing shells. At other times of the year, a coach will supervise a maximum of 9 junior rowers in a maximum of 3 rowing shells or a maximum of 14 experienced adult rowers in a maximum of 4 rowing shells.

Because winds can arise very quickly in the winter and the water is cold, rowers are not permitted on the water without proper winter attire between November 1 and April 30. Shorts, T-shirts and similar clothing are not permitted during this interval. The coach is responsible for verifying that all rowers have appropriate clothing.

Coaches shall ensure that a coach bag with the appropriate safety equipment is placed in the coach boat before leaving. The coach bag contains a copy of the coach boat's license. The license will have to be produced if the Coast Guard or police are conducting on water safety checks. Coaches are required by regulation to take the safety equipment in the coach bag⁵. If a coach consciously chooses to leave the coach bag behind, and somebody gets hurt, the coach can potentially be charged with criminal negligence⁶. Your employment with the club does not protect you.

Coaches shall ensure that the coach boat gas tank contains sufficient gas to complete the rowing session. Do not rely upon the assurances of other coaches. Check the gas yourself. If

⁵ <http://laws-lois.justice.gc.ca/eng/regulations/SOR-2010-91/FullText.html>, section 222

⁶ <http://laws-lois.justice.gc.ca/eng/acts/C-46/section-219.html>

you are not absolutely sure how much gas your coach boat needs, do not use a gas tank that is less than one third full.

Launching and Landing

Some rowers may not have the strength, dexterity or conditioning to safely carry their share of a quad or double to and from the beach. A rower may have a medical condition (e.g. a back problem) that prevents them from carrying significant weight.

The coach is responsible for determining whether each crew can safely carry their shell between the boathouse and beach. If there is any doubt, the coach will either assist or ensure that other rowers help the crew in question.

Program surveys consistently produce feedback that shells are heavy to carry, especially on a crowded beach. The club wants rowers to enjoy rowing, so make sure that help is available when needed.

Course Selection

Most rowing sessions extend well out into Indian Arm. It is common for rowers to get far enough away from Deep Cove that it will take half an hour to row back to the cove. During the rowing session, rowers will be subject to the prevalent weather and will have to contend with other water traffic.

Coaches should select a course for the rowing session before leaving the cove. The selected course should take into consideration the weather (especially the winds), available daylight, the skills of rowers, the rowing shells being used and the amount and types of water traffic that are likely to be encountered.

If rowing is restricted to the cove by weather, it may be appropriate to establish a flow pattern for a particular rowing session. The chosen flow pattern should take into account prevailing winds, commuter boat traffic from up Indian Arm, recreational boat traffic and human propelled craft such as kayaks, paddleboards, canoes and dragon boats.

If the rowing session involves heading towards Port Moody or past Cates Park, it would be prudent to take a VHF radio and monitor channel 12. Channel 12 is used by Vancouver Traffic Services to coordinate all commercial boats in the harbour. Tugs, freighters and other vessels notify Vancouver Traffic Services about their intentions and timing and receive advisories about previously reported traffic. If it is dark or visibility is marginal (e.g. misty), it would be a reasonable safety precaution to inform Vancouver Traffic Services of your presence so they can notify commercial boats passing through to be on the lookout.

While out on the water, keep a close lookout for any possibility of collisions with:

- debris
- buoys
- docks
- kayaks, canoes, paddleboards, dragon boats

- recreational and commercial boats

Warn rowers about collision hazards and adjust the course to eliminate or reduce the possibility of collision.

On Water Conduct

Coaches (and any other occupants of the coach boat) must wear a PFD or lifejacket while they are on the water. The coach boat operator must firmly attach the engine kill switch lanyard to their PFD, lifejacket or clothing while they are on the water.

The coach boat generates the most wake at partial throttle. When significant wake is being generated, the coach boat operator shall choose a course that avoids having the wake strike a rowing shell. If it is necessary to pull ahead of or cross the path of a rowing shell, the coach boat shall perform the manoeuvre either at very low speed or at high speed.

Coaches will occasionally have to manoeuvre at high speed to cross the distance between rowing shells when the group has spread out. Coaches must never cross a large wake at high speed. The periodic pattern of the wake can cause the coach boat to oscillate increasingly violently from side to side. If the wavelength and coach boat speed are the wrong combination, the coach boat will flip. Even when the wake is crossed at right angles, the coach boat will bounce ever higher off successive wave tops. Slow down before crossing the wake.

The coach boat operator shall never manoeuvre at high speed in the close vicinity of rowing shells. Slow down well before you reach the vicinity of a rowing shell.

The coach boat operator shall not generate a large wake or manoeuvre at high speed in the vicinity of third party human powered watercraft, sailing dinghies or swimmers.

If a problem or an emergency occurs that necessitates a return to shore, all rowing shells and the coach shall return to shore together. The coach shall not direct a rowing shell to return to shore unaccompanied or remain on the water unaccompanied unless circumstances allow no other choice.

Emergency Procedures – General Principles

Priorities

The first and paramount priority is the safety of rowers and coaches. Recovery of equipment is a distant second priority. Equipment can be replaced. Lives cannot be replaced.

No equipment shall be retrieved until the health and safety of all rowers has been assured. Coaches shall not retrieve equipment unless it is safe to do so.

Rower Buddy System

During rapidly degrading water conditions or an emergency, rowers shall use a buddy system.

Rowing shells shall be directed to form groups of two or three rowing shells. As long as the rowing shells in a group remain upright and able to row, they shall be directed to remain together until the situation or emergency has been resolved.

Unless it is absolutely necessary, the coach shall not send rowers back to shore unaccompanied. Even when necessary, a coach shall never send a single shell back to shore unaccompanied. The coach shall always send a group of two or more shells back together. The rowing shells in the group can keep track of each other and provide assistance to each other while the coach is unavailable.

Rowers in a shell will be organized into buddy pairs and threesomes. If a shell has swamped or capsized, all of the rowers in a buddy pair or threesome shall be recovered as a unit. Nobody in a buddy pair or threesome shall be left alone in the water. There shall be no exceptions to this policy.

On Site Authority

The senior coach present must assume command in the event of an emergency. The senior coach must direct and control operations until such time as the emergency has ended or more qualified emergency responders have arrived. Upon the arrival of emergency responders, the senior coach must identify himself or herself to the emergency responders and cooperate as needed. The arrival of emergency responders does not relieve the coach of responsibility for other rowers in the group.

The senior coach shall ensure that everybody knows what is going to be done to resolve the emergency. This will help avoid panic and encourage efficient cooperation to resolve the emergency.

Emergency Action Plan

If an emergency occurs, the coach shall refer to the emergency action plan located in the coach bag. The emergency action plan is a single, plastic laminated sheet titled "In Case Of Emergency" that provides critical information for responding to an emergency.

Emergency Calls

If an emergency arises and it is not obvious that it can be resolved without help, call for help. If there is the slightest uncertainty, call for help. The emergency services would far rather have you waste their time than have somebody be injured or killed because they were called in too late.

For an emergency on land:

1. Call 911.
2. You will be asked for the municipality. If you are in Deep Cove, on the west side of Indian Arm or near Cates Park, respond with North Vancouver District. If you are on the east side of Indian Arm between Camp Howdy and Bedwell Bay or in Belcarra Bay east of Hamber and Boulder islands, respond with Anmore/Belcarra. If you are on the southern shore of Burrard Inlet near the refineries or Barnet Marine Park, respond with Burnaby. If you are east of the second set of overhead transmission lines in Port Moody inlet, respond with Port Moody.
3. You will be asked for the type of emergency service needed. Respond with fire, ambulance and/or police.
4. You will be asked for a location. If assistance is required at the boathouse, the address is:

2156 Banbury Road, at the boathouse in Deep Cove Park

If you have pulled off the water at one of the public access points, refer to the map on the emergency action plan sheet for an address. As a last resort, send somebody to find a street intersection or address.

5. Provide a concise description of the current situation and the nature of the assistance required. Imagine that you are the emergency responders responding and try to anticipate what they need to know to help you.

For an emergency on water requiring a water rescue:

1. Call the Coast Guard directly at *16 on a mobile phone or on VHF channel 16.
2. Only if the Coast Guard cannot be reached, call 911. Because local emergency responders do not have boats, E-Comm will transfer the call to the Coast Guard (but not before they ask several questions in case the connection is lost).
3. The Coast Guard will ask you for a location. Refer to the map on the emergency action plan. Respond first with Indian Arm and then identify a nearby landmark (e.g. Jug Island). Give the distance and direction from the landmark (e.g. 1 km SW of Jug Island). Please note that the Coast Guard will not be aware of "Pretty House Island" or "Camp Howdy". On their charts, these locations are known as Lone Rock Pt and Farrer Cove respectively. All other landmarks use the same names that you are already familiar with. If your cell phone has GPS capability, give the Coast Guard a GPS location.
4. Provide a concise description of the current situation and the nature of the assistance required. Mention that rowing shells are involved and that they are very low on the

water and consequently hard to see. Imagine that you are the Coast Guard responding and try to anticipate what they need to know to help you.

Fire Department & Ambulance Meeting Locations

If a victim requires medical attention and it is feasible to transport them to shore, response time will be minimized if the victim is transported to the nearest shoreline location that is accessible to all of the coach boat, fire department and ambulance.

Suitable meeting locations are identified on the emergency action plan. The location is marked on the map on the plan. A street address, as it is known to the emergency services, is provided. Visual references for finding the location from the water are provided.

Approaching a Rowing Shell

For a variety of reasons (e.g. equipment adjustment/repair, emergency), a coach will occasionally have to manoeuvre the coach boat close enough to access a rowing shell. The rowing shell should always be approached from the downwind side. Coach boats drift downwind faster than rowing shells. If your coach boat is on the upwind side, it will be pushed into the rowing shell. Even if you can hold the coach boat off while you are doing whatever you need to do, the coach boat will twist in the wind until its whole length is trying to ride over top of the shell. Oars will be pushed underwater de-stabilizing the rowing shell.

By approaching a rowing shell from downwind, the wind will help keep the coach boat from pushing into the rowing shell. If you can't afford a hand to hold on to the rowing shell, wrap the coach boat bow line around a rigger 3 or more times to keep the coach boat from drifting away from the rowing shell.

Coach Entry into the Water

If an emergency occurs such that a rower ends up in the water, the coach will want to get to the rower as soon as possible to help. Having reached the rower's immediate vicinity, the coach is faced with a decision of whether to leave the coach boat and enter the water to help the rower.

Having a coach enter the water may be necessary, but it is not preferred. The following issues arise as soon as the coach leaves the coach boat:

- If the coach gets into trouble, the safety of all rowers is compromised.
- As soon as the coach goes in the water, the time scale for the rescue immediately extends significantly.
- The coach boat will start to drift away
- The coach probably has the only engine kill switch lanyard, so nobody else will be able to start the motor.
- Rowers may not be familiar with operating the coach boat.

If the coach has to enter the water, he or she should secure the coach boat's mooring line before entering the water to prevent the coach boat from drifting away in the wind or current. Even when there is no wind, the tide will pull the coach boat away from the rowing

shells. The coach can either hand the coach boat's mooring line to a rower or quickly wrap it 3 or more times around an oarlock. Don't bother taking the time to tie a knot.

Getting Rowers into the Coach Boat

If a rower has ended up in the water, the coach may have to assist the rower to get into the coach boat. This can be a problem if the coach is small, the rower is large and the rower does not have enough strength to pull himself or herself up into the coach boat. The following technique will help get a rower into a zodiac or other coach boat with good stability:

1. Position the rower with their back to the coach boat.
2. The coach will be falling backwards away from the rower, so move any hard objects that might be landed on.
3. The coach crouches down near the rower and puts his or her arms under the rower's arms at the armpits.
4. In one fluid motion, the coach stands up and falls backwards.

The initial standing motion will raise the rower. Because their body is partly supported by the buoyancy of the water, this will not require as much strength as it would on land. Gravity and the coach's weight will do the rest of the work of pulling the rower into the coach boat. The coach will end up with the rower on top of them, but the rower will be in the coach boat.

This technique only works well if the coach can crouch near the edge of the coach boat without tipping it. It may be necessary to choose a position in the coach boat (e.g. nearer the bow) that minimizes the tendency to tip the boat. Avoid the stern of a zodiac as the weight of the motor and coach at the rear of the zodiac may be enough to tip the zodiac over backwards.

Emergency Procedures – Specific Situations

Swamping

If only one rowing shell has swamped, the first action of the coach shall be to distribute a PFD or lifejacket to each rower in the shell. If the PFD or lifejacket will impede a rower getting into the coach boat, it is acceptable to wait until the rower is in the coach boat. Once in the coach boat, rowers shall ensure they are wearing a PFD or lifejacket.

If multiple rowing shells have swamped, there may not be enough PFDs or lifejackets for everybody. In this case, the PFDs and lifejackets must be preferentially distributed to rowers that will stay behind in the swamped shells. While waiting for the coach to return, rowers shall put on the PFDs and lifejackets. When a rower is evacuated, their PFD or lifejacket shall be passed on to any rower without one that has to remain in a swamped shell.

The coach shall evacuate the swamped rowing shell and bring the crew into the coach boat. It will probably be necessary for crew members to exit from the swamped shell and swim a short distance to the coach boat. Make sure that everybody has his or her feet out of the shoes before anybody leaves the rowing shell. While waiting their turn to be pulled into the coach boat, rowers should hang on to the side of the coach boat or the shell.

If multiple rowing shells are swamped, it will be necessary to evacuate the rowing shells one at a time. Evacuated rowers shall be ferried to the nearest shoreline (even if this is further away from Deep Cove) in order to minimize the time away from the remaining rowers in swamped shells. Only after all rowers have been ferried to the nearest shoreline shall they then be ferried back to Deep Cove or another location appropriate for the conditions.

The coach shall evacuate swamped rowing shells in sequence. Shells should be prioritized as follows:

- All rowers in a given rowing shell shall be evacuated at the same time. This ensures that nobody gets missed.
- More easily panicked rowers and rowers with a history of poor judgment should be evacuated first. A panicky rower is more likely to exercise poor judgment such as trying to swim to shore while the coach is away.
- Rowers that are heavy and/or physically weak should be evacuated sooner, because they may have trouble getting into the coach boat the longer they wait.
- Rowers that have the best clothing to stay warm can be left longer.

Until it is time to retrieve equipment, oars shall be left in the oarlocks. This will keep the oars with the shells, but more important, they will stick up in the air making it easier to find the shell(s) again if rowers have to be ferried to shore.

If the coach boat is a zodiac, stay away from the bow and stern of rowing shells and the riggers while evacuating rowers and retrieving equipment, especially in rough water. The

sharp end of the rowing shell can puncture the zodiac. The oarlock pin can also puncture or abrade the fabric of the zodiac.

Capsizing

Coaches must respond to a capsize immediately. If a rower's feet are stuck in their shoes, they have very limited time to get free.

Upon arriving at the capsized shell, the coach must perform their own head count to make sure everybody has gotten free. The coach should know, but if not sure, ask the rowers who is missing and where they were seated. Perform a visual check under the rowing shell to see if the rower is trapped in their shoes. If they are trapped or poor water visibility precludes verification, somebody in the water will have to free the rower or check for their presence. If an able-bodied rower is in the water already, they can check and perform this rescue faster than the coach. If not, the coach must go into the water.

Having freed the rowers from their shoes, a capsize is handled the same as a swamping.

Collision

Avoiding Collisions

The route selected by a coach for the rowing session can significantly reduce the probability of a collision. Seek out areas where there is less traffic. Not only will the possibility of collision be reduced, the rowing session will be more enjoyable.

Over time, coaches should develop an understanding of where traffic is most likely to be encountered at a given time of day. For example, kayakers usually head directly out past the marina on the north side of the cove on their way to the Pretty House area or along the south shore of the cove when heading towards Grey Rocks. Commuter boats heading towards or coming from Indian Arm will be encountered near the marina and predominantly on the west shore of Indian Arm in the morning and evening. Large recreational boats will be encountered mid day on a sunny weekend heading up or down the middle of Indian Arm. Water skiers are commonly found in Bedwell Bay. In mid-summer there is a steady stream of boats in transit between the Cates Park area and Bedwell Bay.

During the summer, the triangle comprised of Racoon Island, Twin Islands and Camp Howdy is typically a little quieter than elsewhere. The Belcarra shoreline between Hamber Island and Admiralty point is also a good choice.

Avoiding Collisions with Recreational Watercraft

Power boats are often moving at fairly high speed. They can approach a group of rowers sufficiently quickly that it is impossible for the rowers to move out of their way.

As a matter of habit, coaches must maintain a continuous watch and position the coach boat between power boats and rowing shells, especially when power boats are approaching from head on or astern. The greater visual cross section and motion of the coach boat will help attract the power boat operator's attention. The "body language" of a coach boat can be used to encourage the power boat to alter course to pass with a greater margin.

Coaches must position the coach boat early in the encounter and not wait until a collision is imminent. If a last second dash is made, the power boat operator's attention may be drawn to the coach boat and away from the rowing shells that they are approaching.

Responding to a Collision

Despite diligent care and attention, one of your rowing shells may collide with another watercraft or swimmer. The worst case scenario is a large powerboat running over one of your quads at speed. It is an unpleasant reality, but this scenario can easily overwhelm you, so how you respond may determine who lives and who dies.

It is imperative that the coach responds quickly. You will almost certainly be the first resource to respond. It is critical that you not freeze into inaction. Even if you are ready to panic, pick somebody in the water to help. Momentum will keep you going.

If you can remain calm and collected, the following response strategy may help you:

1. Get to the scene of the collision as quickly as possible. Direct any other rowing shells to join you at the scene but to remain a short distance away.
2. Identify and locate everybody including third parties (e.g. a swimmer).
3. Assess the condition of each individual:
 - a. Is anybody unconscious or unresponsive?
 - b. Is anybody succumbing to panic or reacting strangely?
 - c. Are there signs of blunt force trauma?
 - d. Are there signs of lacerations?
4. Decide what order victims will be helped and who will help.
5. Communicate the plan to anybody who is able to help.
6. Implement the plan.
7. Call the Coast Guard for assistance.

Lets expand on each of these steps.

After you reach the accident site, make sure you shift your motor into neutral to avoid causing injury to anybody in the water. If the accident scene is localized, wrap your bow line around an oarlock a few times to prevent you from drifting away.

Any unaffected rowing shells should proceed to the accident site but not so close that there is a risk of getting in the way or hitting a victim a second time. The reason why unaffected rowing shells should move closer is that the rowers will be able to help, even if all they can do is hold somebody's head above water until you can get to them.

If anybody appears to be missing, check any overturned rowing shells. Somebody may be unconscious or disabled and trapped in their shoes.

Do not trust victims to give an accurate self-assessment of their condition. There have been countless situations where victims did not realize they were hurt and did not properly

understand the degree to which they have been hurt. Somebody who appears to be fine now may lapse into unconsciousness in a few minutes.

To pick an order for assistance, use the principle of triage. Triage divides people into three groups:

- The condition of some victims will not degrade at all or significantly if they are ignored initially. They may be in the water but they are conscious, in control of their faculties and have no wounds or minor wounds.
- Some victims will die if they are not attended to quickly but can be kept alive if they are rescued and given first aid immediately. A good candidate for this group is anybody whose condition can be dramatically improved with limited effort.
- Some victims may be dead already or will die despite any rendered aid. A candidate for this group is someone who will require a lot of time and attention to avoid death.

Your priority should be the second group.

Have all uninjured and lightly wounded victims swim to your coach boat or preferably to a nearby rowing shell. They should take with them anybody who is not going to be dealt with immediately. Rowers in the nearby rowing shells should hold on to everybody including those who appear to be fine. Somebody who initially appears to be fine may lapse into unconsciousness and slip away with little or no warning.

It may be appropriate to have an uninjured victim or a rower from a nearby rowing shell get into the coach boat to help with victims. Don't overload the coach boat with people.

Anybody with a serious laceration, who is losing blood quickly, should be helped immediately before they lapse into unconsciousness. Apply pressure to the wound or apply a tourniquet. Possible candidates for a tourniquet include a heaving line in the coach bag, the Boston Whaler's gas tank strap, a bow line, a quick release lace from a pair of rowing shoes, a thin long-sleeved shirt, etc.

Anybody who is unconscious or unresponsive may have ingested water. Start CPR and rescue breathing.

Choosing whether to deal first with a serious laceration or someone who is unconscious or unresponsive is not an easy choice. In the latter case, you have 5 – 10 minutes after the ingestion of water before oxygen deprivation is fatal. If somebody can help, try to deal with both victims concurrently.

Any victims with broken bones and other consequences of blunt force trauma should be removed from the water as soon as possible. Once out of the water, their injuries can be dealt with later.

If the collision is serious, assign somebody to call the Coast Guard as early as possible. They won't be able to get to you themselves quickly, but they may be able to direct other boats

near you to respond. Anybody who can help treat and/or transport victims is valuable. If at all possible, use a VHF radio to call the Coast Guard. The emergency call can be initiated quicker and will attract the attention of nearby boaters more quickly.

The coach must try to avoid going into the water to help victims. Get an uninjured or lightly injured person in the water to assist. If the coach goes into the water, the time required to assist a victim increases significantly, because the coach has to get back out of the water before she or he can extract the victim into the coach boat. The coach's energy will disappear quickly in the water due to cold and physical exertion. The coach may rapidly become another victim and that will not help anybody.

It may be appropriate to assign someone to assist with coach boat manoeuvring. It is best if they do it with oars rather than the motor. They will probably not be familiar with coach boat operation or the specific coach boat's peculiarities, so it may be dangerous to have them operate the motor in the vicinity of victims in the water. It would be appropriate to have somebody else operate the coach boat while transporting victims to shore, but again, only an experienced boat operator should manoeuvre the last few feet under power. An inexperienced operator may run the boat sufficiently hard up on the beach that it can't be pushed off again.

An early priority should be to get victims out of the water. You will be better able to fully assess their condition. Once everybody is out of the water, it is possible to transport victims to a fire department and ambulance meeting location on the nearest shoreline.

Enlist the aid of the Coast Guard. They may be able to get assistance to you for victim transport. They can notify the fire department and ambulance on your behalf. They can direct those services to respond to the appropriate location. You can help the Coast Guard by identifying the nearest fire department and ambulance meeting location (see the emergency action plan in the coach bag).

Medical Emergency

Rowing is a strenuous sport. The high intensity can trigger or exacerbate a medical problem. For example, nobody should be surprised about the possibility of a middle-aged rower having a heart attack. Medical problems can occur at any age however. In June 2012, a 24 year old Serbian rower, training for the World Rowing Cup, collapsed and died during a training session.

Coaches must keep a close watch for symptoms of a medical problem. The most obvious symptom is the rower collapsing. Less obvious is any one of a number of lesser symptoms that do not result in unconsciousness. It is not possible in the limited space of a handbook to list all possible symptoms, even if the author was qualified to do so. The best advice that can be given is to be on the lookout for unusual, out-of-character behaviour.

Victim Conscious

If a medical problem is suspected, and the rower is still conscious, attempt to communicate with them to determine the nature and seriousness of the problem. Be warned that victims

will probably downplay the severity of the problem. Find out what symptoms they are feeling, both type and severity. If the rower were to collapse later on, this information may be useful to emergency responders.

Based on the information obtained from the rower, determine whether the rowing session should be terminated. Err on the side of caution. If the rower and coach are not completely certain what the problem is and what its severity is, it would be prudent to turn around and head back to Deep Cove. Depending on severity of the symptoms, it may be appropriate to plan a course that remains close to the shoreline and possible fire department and ambulance meeting locations.

If a decision is made to return, minimize the exertion that the victim must expend to get home. If the victim is in a double or quad, do not let the victim row. Let the other rowers bring the rowing shell home. If the victim is in a single, transfer them to the coach boat and tow the single home. All rowers and rowing shells must return with the coach boat.

Depending on the severity of symptoms, it may be prudent to call the Coast Guard or 911 and ask that the fire department and ambulance respond to either the government wharf in Deep Cove or the nearest fire department and ambulance meeting location on shore (see the emergency action plan in the coach bag in the coach boat).

Victim Unconscious

If a rower collapses and is unconscious, the coach shall immediately place an emergency call to the Coast Guard. If the victim can be extracted from their rowing shell and transferred to shore, the Coast Guard can arrange for fire department and ambulance to respond. If not, the Coast Guard will arrange for emergency responders to respond to the on-water accident site but it will take a while.

If a victim has collapsed in a single, they will probably be in the water shortly thereafter. The victim collapsing may be indistinguishable from a capsize except that they will be unable to raise their head above water and may immediately start to drown. This is a good reason why it is imperative that the coach respond to all apparent capsizes immediately. Upon arriving at the single, a collapse should be suspected if the victim's face is in the water and they are still attached via their shoes to the shell. The coach must immediately get the rower detached from their shoes and into the coach boat. Start rescue breathing and CPR as needed.

If a victim has collapsed in a double or quad, the other rowers will probably notice before the coach. The rowers shall wave their arms up and down to attract the attention of the coach. While waiting for the coach, the other rowers should detach their own feet and the victim's feet from his or her shoes if they can be reached. If the victim is in a quad and not in bow seat, their torso should be laid back across the rigger and legs of the rower ahead of them. That rower should initiate CPR and/or rescue breathing if necessary.

Upon arrival, the coach shall transfer the unconscious victim to the coach boat. This will be difficult to do without capsizing the rowing shell, especially if the victim is not in the most easily accessible stroke or bow seats. The simplest procedure may be as follows:

- Remove the victim's feet from their shoes if not already done. The coach will probably have to do this if the victim is in stroke seat.
- The crew shall exit from the rowing shell into the water.
- The crew shall swim to the far side of the rowing shell from the coach boat.
- One of the crew members shall hold on to the victim to prevent them from toppling into the water.
- The crew shall raise the riggers on their side of the rowing shell so the near side riggers are just underwater.
- If the rowing shell threatens to capsize, the crew can pull down on the riggers to keep the shell from overturning.
- The coach shall manoeuvre the coach boat's bow over the near side riggers until the bow is close to the victim.
- The coach shall lift the victim into the coach boat.
- The crew shall enter the coach boat (probably faster) or re-enter the rowing shell.

If possible, an able bodied rower shall enter the coach boat to help with CPR and rescue breathing. The coach can not operate the coach boat and at the same time perform CPR and rescue breathing.

If the victim can be transferred to the coach boat, it is imperative that they be transported as soon as possible to meet up with emergency responders. This will either be a fire department and ambulance meeting location on shore (see the emergency plan in the coach bag in the coach boat) or an on-water location designated by the Coast Guard where the coach boat can meet with emergency responders.

If the coach has to transport an unconscious victim to emergency responders, the remaining rowers shall head for the nearest accessible shoreline. If the coach is concerned about their ability to safely reach the shoreline, he or she shall accompany the rowers to the shoreline. Upon reaching the shoreline, rowers shall disembark and await the return of the coach.

Rowers and coaches must not assume that the coach will be able to transport the victim to emergency responders and quickly get back to the rowers. The trip will probably take a lot longer than expected.

Regatta Procedures

Home Regattas

The relevant subset of the safety policies and procedures in this handbook shall apply at regattas hosted by the Deep Cove Rowing Club in Deep Cove. In addition, there are specific procedures to be followed at these regattas.

It must be recognized that the Deep Cove Rowing Club is responsible for the safety of all participants in its regattas, not just the members of the Deep Cove Rowing Club. Regatta organizers shall ensure that all participants, and especially visiting participants, are acquainted with relevant Deep Cove Rowing Club safety policies and procedures.

Safety Coordinator

Regatta organizers shall appoint a safety coordinator to be responsible for safety during the regatta. The safety coordinator will preferably not have other duties to perform during the regatta. Other duties will always appear to have higher priority and more immediate deadlines with the result that safety is not given the attention it deserves.

The safety coordinator will formulate a safety plan for the regatta. The regatta safety plan will satisfy the requirements of this handbook. The regatta safety plan will satisfy the requirements of Rowing Canada umpires officiating at the regatta. The regatta safety plan will be integrated with general regatta planning. The safety coordinator will be responsible for acquiring resources (volunteers, equipment) to implement the safety plan.

Before and during the regatta, the safety coordinator shall liaise with umpires and visiting rowing clubs. The safety coordinator will brief all coaches and rowers on the regatta safety plan.

Past experience has demonstrated that visiting rowers do not adequately appreciate Deep Cove's beach launching environment. Rocks and barnacles are prevalent on Panorama beach at all tide levels and the boathouse beach at low tide. Rowers moving around in shallow water quickly stir up silt that hides the presence of these dangers. At most regattas, a few rowers have to be treated for cuts from barnacles.

The safety coordinator shall ensure that all visiting clubs are notified about the necessity of wearing footwear that protect the soles of the feet and ankles.

During the regatta, the safety coordinator shall monitor conduct of the regatta, weather, water conditions, boating traffic and any other relevant factors that might affect regatta safety. The safety coordinator shall have the authority to immediately suspend or adjust the conduct of the regatta at any time if a serious safety issue is detected. An example would be suspension of the regatta if a thunderstorm were to occur.

Regatta Safety Requirements

Regatta organizers, volunteers and umpires shall use VHF radios, set to a common radio channel, to manage the regatta. From a safety perspective, VHF radios are most effective for quickly communicating high priority safety information (e.g. confirming that rowers have not gone missing, suspending racing during bad weather, ensuring safety boat coverage). The safety coordinator shall carry a VHF radio at all times during the regatta. Each safety boat shall be equipped with a VHF radio. If a safety boat is carrying an umpire with a VHF radio, the umpire's radio will satisfy this requirement.

At least one beach marshal, and preferably at least two, shall be deployed at each beach used for launching or landing rowing shells. The beach marshal(s) shall be responsible for coordinating the manner and order in which shells are launched and landed. Beach marshals shall be responsible for coordinating the carrying of rowing shells to and from the beach so as to minimize the risk of people being hit by a rowing shell. Because this dual responsibility requires that attention be directed in opposite directions, it is preferred that there be at least two beach marshals at each beach and at least one of the marshals should focus on monitoring carried rowing shells.

Safety boats shall be deployed to monitor rowers on the water during the regatta. Safety boats may or may not carry an umpire.

A sufficient number of safety boats shall be deployed to ensure that any given rowing shell is in visual sight of at least one safety boat at all times while the rowing shell is on the water. Safety boats that are carrying an umpire and acting as a chase boat shall not be responsible for monitoring rowing shells that are not actively racing on the race course. Each rowing shell that is not actively racing must be in visual sight of a non-chase safety boat at all times.

Visual monitoring of rowing shells shall commence from the time they launch until the time they land. Visual monitoring is usually weakest immediately after launch and just before landing, because there are too few safety boats to justify stationing them near the beaches and the visual environment near the beaches is cluttered.

One alternative is to have beach marshals be responsible for monitoring rowing shells near the beaches. This alternative shall only be considered satisfactory if at least one marshal at each beach has the ability at all times to communicate immediately with the on-water safety boats. A VHF radio tuned to a common working frequency will satisfy the immediate communication requirement. A cell phone does not satisfy the immediate communication requirement.

At least one safety boat shall carry an operational megaphone. This megaphone will be used to quickly pass safety messages to rowers (e.g. a command to get off the water due to a nearby thunderstorm). An umpire's megaphone can be used to satisfy this requirement as long as the umpire is positioned so that their megaphone can be heard by the majority of rowers.

For regattas that extend out into Indian Arm (e.g. the Deep Cove Classic), at least one safety boat shall be positioned along the race course in the middle of the arm. In addition to its normal duties, the mid-arm safety boat shall be responsible for reporting water conditions and weather to the safety coordinator and regatta organizers. The mid-arm safety boat shall reach its assigned position and make a first report before any rowers start to race. The mid-arm safety boat shall continue to report all significant changes in weather and water conditions until the last rowing shell returns to the cove.

The mid-arm safety boat shall be responsible for monitoring recreational boats transiting up and down Indian Arm. The mid-arm safety boat shall use a megaphone, VHF radio and/or hand signals where appropriate to encourage recreational boats to slow down and/or change direction to minimize risk to rowing shells. The mid-arm safety boat shall shield rowing shells and use body language to direct recreational boats as discussed earlier in this document. This assignment is best handled by the largest safety boat available.

Away Regattas

The relevant subset of the safety policies and procedures in this handbook (e.g. assessment of weather and water conditions) shall apply at regattas, training camps and other events held at any venue other than Deep Cove. In addition, there are specific procedures to be followed at non-Deep Cove venues when participation is sanctioned and organized by the Deep Cove Rowing Club.

An appropriate number of coaches and/or suitably skilled volunteers shall attend the event along with the rowers. The head coach of the Deep Cove Rowing Club shall designate the coaches and volunteers to be sent. The purpose of these coaches and volunteers is to support rowers while racing and preparing to race. From a safety perspective, these coaches and volunteers can enhance safety by helping to load and unload the boat trailer, carry oars, guide bows and sterns of carried shells and carry rowing shells for tired rowers.

A suitable number of parents and/or volunteers shall be sent to provide daytime and evening supervision of any junior rowers that are attending the event.

One of the coaches or volunteers shall be designated as the Deep Cove Rowing Club's safety coordinator for the regatta.

The safety coordinator shall acquire the safety handbook, emergency action plan and/or equivalent documents for the event or venue. The safety coordinator shall discuss safety with event or venue staff to learn anything that has not been documented (e.g. new hazards). The safety coordinator shall assess the adequacy of event or venue safety. The safety coordinator shall brief DCRC coaches, rowers and volunteers on relevant aspects of event or venue safety (e.g. local hazards, rules). If the event or venue safety program is determined to be inadequate in any way, the safety coordinator shall liaise with the regatta organizers to address the gaps. It may also be appropriate to establish supplementary guidelines and procedures for DCRC participants. The safety coordinator shall determine whether any additional safety equipment needs to be taken to the event or venue. If despite these efforts,

substantial risk remains, the safety coordinator shall have the authority to terminate DCRC participation in the regatta.

If the event or venue is located outside of BC, the safety coordinator shall determine whether it is prudent for participants (rowers, coxes, coaches, volunteers, parents) to get travel medical insurance. If so, the safety coordinator shall advise all participants to acquire insurance before travelling to the event or venue. It shall be the responsibility of participants to acquire and pay for appropriate insurance.