



SAFETY CONTROL NO. 4



Capsize/Swamping Drill

2nd Edition, dated 30th August 2016

SAFETY CONTROL (SC) NO. 4

SC 4.1 Definition of Capsize

In a capsize, the dragon boat is deemed to have rolled-over (complete hull-up overturn) or tip-over (lying on its side in the water).



Photo 1:
Example of a 'Rolled-over'
(complete hull-up overturn)



Photo 2:
Example of a 'Tip-over'
(lying on its side in the water)

SC 4.2 Definition of Swamping

In a swamping, the dragon boat is either fully or partially filled with water.



Photo 3:
Example of a 'partial' swamping

SC 4.3 Causes

- 4.3.1 The most common cause of a capsize or swamping is lost of stability that causes the dragon boat to roll or tip over.
- 4.3.2 Lost of stability is usually the direct result of the dragon boat becoming unbalance. The more common contributing factors are:-
- too many people entering/exiting the dragon boat at one go
 - embarking/disembarking of one side only
 - uneven weight distribution of paddlers
 - paddlers making strong and violent movements while underway
 - overloading
 - steerer making hard, sudden turns
 - environmental (strong winds, choppy water, wave-action, heavy rain)
 - large wake of a passing motorized vessel
- 4.3.3 Collision if the next most common cause of a capsize or swamping. Collision is mainly attributed to the following:-
- steerer losing control of the helm
 - slow or delayed action to stop or brace the dragon boat
 - wash hanging 'wake-sucking' effect (when 2 dragon boats heading in the same direction are in very close proximity to each other)
 - equipment failure (i.e. broken steering oar, etc)



Photo 4 & 5:
A capsize happening as a direct result of
a collision during a race.

SC 4.4 Every Dragon Boater's Responsibility

- 4.4.1 The dragon boat crew must be briefed on the Capsize/Swamping Drill and know what to do in the event of one.
- 4.4.2 It is the responsibility of the Team Manager / Steersperson / Boat Captain / Trainer / Coach, to ensure that the dragon boat Crew is aware of the Capsize/Swamping Drill.
- 4.4.3 The Capsize/Swamping Drill has been designed to ensure the crew-members' safety and well being during a dragon boat capsize or swamping. The drill will accord crew-members with the necessary expectations and actions to ensure a safe environment while awaiting rescue or recovery.
- 4.4.4 After a capsized or swamping, the crew-member may be ejected from the boat and into the water. The Crew-member is to initiate own self-preservation, such as keeping themselves afloat and right-side-up, etc, immediately.

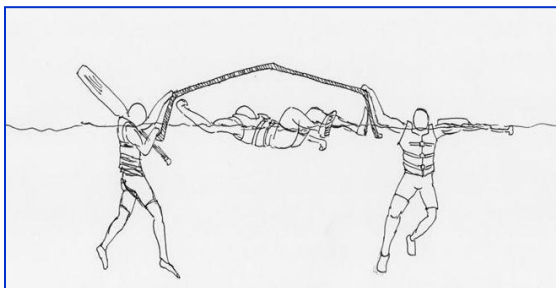
SC 4.5 The Capsize/Swamping Drill

- 4.5.1 The Crew-member must conduct a quick self-check on him/herself. Look out for pain or bleeding injuries as these could escalate into life-threatening medical emergency.
- 4.5.2 Buddies **MUST** then do a quick peripheral search of the area to spot one another
- 4.5.3 Regardless of injury or no, Buddies must inform each other of their condition and well being. This will ensure that Buddies are aware of each other's status after capsize or swamping.
- 4.5.4 Crew is required to stay close to the capsized/swamped dragon boat and try to maintain any handhold onto the hull of the boat. The dragon boat is designed with reserved buoyancy and will not sink immediately. Staying close to the boat will facilitate faster and easier accounting of personnel as well as rescue.

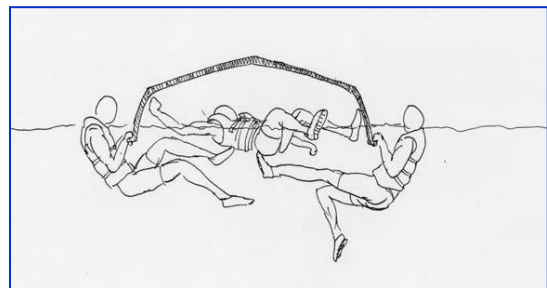


Photo 6:
Stay with the capsized or swamped dragon boat.

- 4.5.5 It is very important for the entire crew try to keep calm and composed as best as they can while in the capsized or swamped position. Panic and anxiety may interfere with the Boat Captain's or Rescuers' attempts to control the situation.
- 4.5.6 Boat Captain to initiate a roll call to account for Crew. The roll call can be done by calling out the names or pre-assigned numbers, etc.
- 4.5.7 It is very important that the crew remain silent so that the Boat Captain can complete his/her roll-call.
- 4.5.8 During the roll-call, inform the Boat Captain if you have any injuries.
- 4.5.9 If your Buddy is too injured to account for him/herself, then you must inform the Boat Captain of his/her injured condition.
- 4.5.10 Buddies **MUST** interrupt the processes mentioned above (SC 4.5.3 to 4.5.9), if they cannot physically or visually account for their assigned Buddy. Inform the Boat Captain immediately that your buddy is missing.
- 4.5.11 If a Crew-member is missing, everyone **MUST** assume that he/she is unconscious. Do a quick visual search within your peripheral vision and try to locate the missing crew.
- 4.5.12 If the missing Crew is not within your peripheral vision, assume he/she is under the overturned hull of the dragon boat. Boat Captain to initiate a leg sweep procedure to feel for anyone trapped underneath the boat.



Drawing 1:
Always assumed missing crew to be unconscious and trapped under the overturned dragon boat.



Drawing 2:
Boat Captain must then get the entire crew to perform the leg-sweep procedure

SC 4.6 Availability of Rescue/Safety Boats

- 4.6.1 Applicable in a race where Rescue Boats are available OR whenever a dedicated Safety Boat is assigned.
- 4.6.2 Once Rescuers arrived, Boat Captain to immediately inform the Rescuer on any missing Crew.

- 4.6.3 If the Boat Captain is unable to account for The Crew with a roll-call, he/she must immediately make this known to the Rescuer. The Rescuer will then immediately take-over the accounting for the whereabouts and status of the crew.
- 4.6.4 The Boat Captain should also inform the Rescuer who the weak or non-swimmers are so that the Rescuer may prioritize them for first recovery.
- 4.6.5 The Crew in the water must execute the Rescuer's instructions.
- 4.6.6 The Crew in the water must also be wary of the Rescue or Safety Boat's propellers.



Photo 7:
Follow the Rescuer's instructions

SC 4.7 Availability of Other Dragon Boats in the Vicinity

- 4.7.1 Applicable where there is no Rescue or Safety Boats assigned BUT there are other dragon boats within the vicinity of capsized or swamping.
- 4.7.2 Teams in other dragon boats are encouraged to come to the aid of a capsized or swamped dragon boat provided it is within their ability to do so and there is no apparent danger to them by doing so.
- 4.7.3 The other dragon boat may offer holding support or initiate recovery of crew in the water if there is space available and safe to do so.



Photo 8:
Only come to the aid of a capsized or swamped dragon boat if it is safe to do so.

- 4.7.4 The other dragon boat may serve as the following:-
- a. staging platform to conduct rescue operations
 - b. tow the capsized or swamped dragon boat to the nearest shore
 - c. shuttling the capsized crew between the capsize location and shore

SC 4.8 Self Recovery

- 4.8.1 Applicable if the capsized or swamped dragon boat crew is alone and unsupported
- 4.8.2 If possible, especially in a swamping, initiate stability recovery by bailing out the water.
- 4.8.3 Abandon the capsized or swamped dragon boat and initiate a group swim to the nearest shore.
- 4.8.4 Boat Captain must keep the entire crew together – do not allow any individual to wander off on their own.



Photo 9:
If your team is alone and unsupported, always stay and move together.

- 4.8.5 Swamping Recovery
- Max. two(2) persons getting back on board
 - Bail out water to restore stability
 - All the while, remaining crew to stay with swamped dragon boat, with secure handhold
 - Once stability restored, taken as when entire dragon boat freeboard is above the water line, crew may board the dragon boat
- 4.8.6 Capsized Recovery
- Attempt to roll the dragon boat back to right side up (in a completely overturned capsize situation, this may be more difficult and challenging and should only be attempted with great caution)
 - Max. two(2) persons getting back on board
 - Bail out water to restore stability
 - All the while, remaining crew to stay with swamped dragon boat, with secure handhold
 - Once stability restored, taken as when entire dragon boat freeboard is above the water line, crew may board the dragon boat

SC 4.9 Back on Shore

- 4.9.1 Once back on shore, the Boat Captain must ensure that all crew are accounted for.
- 4.9.2 In a race event, the Boat Captain must inform the Chief Boat Marshall (CBM) on the status and well being of his/her crew. Immediately inform the CBM of any injured or missing crew member.
- 4.9.3 In a recreational or training session, if the capsized/swamped crew is able to recover back to the reservoir's operations centre (either SDBA or PA Water Venture centres), the Boat Captain must inform the operator of any injured or missing crew member.
- 4.9.4 In self-recovery to the nearest shore, the Boat Captain must immediately sought the general public's help to raise the alarm (by calling the emergency services) concerning any injured or missing crew member. The Boat Captain must also attempt to quickly inform the reservoir operations centre operator.

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Amendment Records:

- 1. 30.08.2016 - updated Self Recovery Item 4.8.5 and 4.8.6