Perform deep water rescues

Objectives
On completion of this unit, students should be capable of:
- using the relevant rescue for the environment and craft
- performing a safe and efficient rescue
- understanding the different types of rescues and their relevance
- competence in all aspects of deep water rescue

Rescues
By ‘rescue’ we mean the emptying of a kayak or canoe and the return of the paddler(s) to the cockpit after a capsize. Capsizes happen when paddlers are in conditions beyond what they can normally handle, either because they are trying something new, or because wind and waves have risen. The rescue must be achieved in the conditions that caused the capsize and the rescue will also put the paddler back into the conditions that led to the problem in the first place. The more buoyancy in the boat, the easier it will be to rescue, so add more buoyancy to your boat. All boats must have secure handholds at bow and stern, and those used on open water will be easier to handle with decklines as well. Toggles are the safest handholds, but many recent boats have simple handles that are difficult to reach and potentially injurious when capsized.

The first priority in all rescues is the capsized person. Make sure the person is calm and relaxed and ignore any floating gear until later.

A paddler who capsizes and exits their kayak close to a safe landing may simply be directed to move to the bow, grasp the handhold with one hand and the paddle with the other, and swim to safety. In moving water they should be upstream (or seaward) of the kayak to avoid injury should the kayak be driven towards them.

In extremely turbulent water maintaining contact with the kayak may be too hazardous, so the boat may be let go and the swimmer should then head to the safest location for rescue. (Rescues with throwbags are described in the resource on whitewater rescues.) The kayak is a danger to other users of the area so call out a warning to them if required. Be aware of other hazards in the area such as overhanging branches, rocks or possible underwater obstructions and other craft and avoid them. Once the boat is on shore, empty it by placing it on its edge: most of the water will flow out, then lift the bow and stern in turn to remove the rest.

If it is not possible for the victim to swim to a safe landing a partner rescue will have to be used. There are several common types and it is good to know all of these and be able to use the best one for any given situation, considering the equipment on hand, the boat type and the conditions. The most important element of any rescue is to get the victim out of the water and back into their boat as quickly and safely as possible. Immersion in cold water quickly saps strength and coordination and is hazardous. As the rescuer you must take control, approach the victim quickly but in a safe, controlled manner: do not risk your own safety. If the victim has let go of their paddle collect it if practical, otherwise leave it to someone else or later.

Check the condition of the victim and give reassurance and explain the rescue method: ensure they keep hold of the bow handhold of your craft: wind or currents can quickly separate the rescuer and rescuee. Carefully observe the victim throughout the rescue and look for signs of injury, hypothermia or shock. Once the rescue has been completed do not release the victim until you are certain that they are capable of continuing paddling. Remember the rescue has put the victim back into the conditions that caused them to capsize in the first place. If you are
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unsure of their paddling confidence keep supporting them and organise a supported tow to the nearest safe landing.

There are conditions on rivers and in the sea where environmental hazards may make a partner rescue impracticable. In surf or caught in a rip traveling towards breakers, or when in or approaching rapids, see to your own safety first while keeping the victim in sight. When the hazard passes move in for the appropriate rescue. There is no point in becoming another casualty requiring rescue.

Equipment

As an instructor or group leader you will need to be prepared to do rescues and towing. Make sure your own boat is easy to rescue in case you have to rescue it yourself with minimal assistance. Keeping track of the paddle has always been a problem, and sea paddlers have long used some form of paddle leash or park. Two types are shown in the diagram. As with all ropes, be aware of the possibility of entanglement.

2m of 4mm or 6mm line
Snaplink (e.g. RF-533)

Other end identical
Float
Sufficient length to wrap around paddle shaft

50cm of 4mm shock cord
Loop for wrist

Loop around paddle shaft
Rigging ball can be put under deck shock cord
A variation on this leash uses an Olive cleat on the wrist loop

Reboarding

All rescue methods eventually have the swimmer reboarding, so it is worth considering first. There are alternative methods, depending on preferences and conditions, with all methods requiring a stable raft. That is achieved by having the boats facing in opposite directions and the rescuer putting as much weight as possible on to the swimmer’s boat.
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Reboarding is possible over the rescuer’s or the swimmer’s boat, with the choice often based on individual preference. By staying low and spreading weight across both boats the raft will be stable, and the swimmer less likely to slide off.

The rescue is not complete until the spray deck is in place and the rescuer satisfied that the rescuee is ready to continue.

Key points

Stabilise
- Lean hard on the rescuee’s boat, with the peak of the deck in your armpit. That hand can hold the rescuee’s paddle
- Hold the cockpit rim with your other hand, ready to assist the rescuee if necessary

Reboard
- Move around the raft to the cockpit
- Rescuer’s weight on rescuee’s boat
- Put one hand each side of the cockpit rim
- Kick the feet to the surface
- Make a breaststroke kick and pull with the arms to come across the deck
- Keep moving, face down, until the feet are in the cockpit
- Roll face up, and wriggle forward until over the seat
- Sit up

The X rescue

This rescue is a versatile rescue used for general purpose and white water kayaks. The victim of the capsize leaves the kayak inverted and holds the bow (preferably) or stern handhold. On approach the rescuer takes the bow from the victim who then grasps the bow handhold of the rescuer’s kayak. The victim can take care of paddles. The rescuer then hauls the inverted kayak across their foredeck keeping both kayaks at right angles. It is advisable to keep the inverted kayak off your spray deck as it can cause damage. The water is emptied from the kayak by seesawing it.

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X rescue: contact The rescuer is putting leashed paddle aside, the swimmer is transferring to the rescuer’s boat. The floating hat is being ignored

The initial lift: nearer hand on on the hull, other hand gripping the toggle

Seasawing the boat, both hands holding cockpit rim, nearer edge higher

Dealing with a boat with insufficient buoyancy

When the kayak is empty it is righted, then slid off the rescuer’s boat and placed alongside the rescuer’s kayak, facing the opposite direction, for the swimmer to reboard.

Although the victim can assist in hauling their kayak across the rescuer’s boat, which may be necessary if the boat has insufficient buoyancy, the rescuer normally does the entire rescue. This makes it ideal for Instructors or leaders of inexperienced paddlers.

Key points

Swimmer:
- Leave the boat inverted
- Hold it by the bow (preferably) in one hand, with the paddle in the other
- Ignore anything floating away: let go of your boat and it can drift faster than you can swim
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• Watch for your rescuer: if necessary swap sides so that your boat is between you and the rescuer’s boat when it arrives

Rescuer

• Put your paddle into its leash
• Talk to the rescuee, giving clear, concise instructions
• Plan your approach to pick up the rescuee and boat in one move
• Have the victim transfer to your bow
• Place your nearer hand on the upturned hull
• With the other, grab the toggle or end loop
• Lean on the boat, and then push away to give some impetus for the lift
• Use the deck lines (if present) to haul the boat across: be quick at this stage to avoid the stern filling
• Grab the cockpit rim as soon as you can reach it, then drag the boat to and fro to drain it
• Have the nearer side slightly higher so that it clears your own cockpit rim
• Do not try to remove every last drop: you will not be able to do so and will waste time if you try
• Do not try gripping the upturned hull unless you have hands like octopus tentacles
• If the boat is waterlogged (because of insufficient buoyancy), you may find it difficult to handle: let the rescuee do some work:
  – the rescuee reaches across the rescuer’s deck to grasp the handhold of the capsized boat
  – drag it across the deck
  – with feet on the gunwale, keep pulling until the cockpit is over the rescuer’s deck
  – pull downward to begin draining
  – the rescuer must hold the boat by the cockpit rim as usual
  – the rescuee must stay in contact at all times, and return to the rescuer’s bow

Launch

• Put the boat back into the water, on the side opposite from where you picked it up and facing the opposite direction

X rescue for open canoes

The method is similar to the X Rescue for kayaks, and for rescues from another open canoe, it is usually the stern paddler who does the work

• If necessary, and there is space among the gear, the bow paddler can turn round to assist
• The rescuee hanging on the bow of the rescuing canoe can help to stabilise it
• The canoe may roll itself upright as you begin the lift. If that happens, simply keep lifting and dragging the boat across your own gunwale, and water will spill out as the boat rises
• Ignore any floating drums and other packages until the rescue is complete

Flip and pump

This rescue is for sea kayaks fitted with a hands free pump and is the quickest way to get the victim into their kayak and paddling. That makes it the method of choice for rescues near surf breaks, where there is danger of being swept against a cliff, etc.

The capsized paddler rights their kayak after leaving the cockpit, and if the pump is electric, switches it on. The victim then moves to the bow of their kayak and holds on to boat and paddle. The rescuer moves alongside the victim’s kayak to stabilise it for reboarding.

As soon as the paddler is back in the cockpit he or she can paddle away from danger, letting the pump do the work, and leaving the spray deck until in a safe position.

This rescue assumes minimum volume cockpits which can be paddled when flooded. (Some boats will need to have buoyancy material fitted in the cockpit.) It’s something worth practising.
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Wedge rescue
This is one of the fastest methods of clearing the cockpit of water. The victim rights the kayak after leaving the cockpit, moves to the bow and waits. The rescuer approaches the victim’s bow with an angle of 45–60° between the two. As the rescuer’s bow crosses that of the rescuee, the rescuee transfers to the rescuer’s bow. The rescuer grasps the swimmer’s kayak by the deck lines and pulls so that it rides up onto their foredeck.

Time the pull with wave action to save effort and avoid being speared. When the cockpit is clear of the water the boat is pushed forward on the deck clear of the rescuer’s cockpit, and rolled towards the rescuer to drain. The kayak is then righted and slid off the deck and supported for the victim to re-enter.

Key points
- Grab the bow of the boat by the deck lines, with an angle between the boats of 46–60°
- Pull the bow: it will come up and across in front of you
- Keep pulling until the cockpit is clear of the water
- Push the boat forward on the deck and roll the boat towards you and watch the water draining. (Do not try to remove every last drop: you will not be able to and will waste time if you try)
- Roll the boat upright and slide it back into the water facing the opposite direction
- Re-entry is by any of the methods shown above

The Swimmer assisted rescue
In this rescue the victim leaves the boat inverted and moves to the stern. The rescuer approaches the bow with kayaks at an angle of 90° and grasps the bow. The victim pushes down on the stern to lift the bow as the rescuer draws the kayak over their deck until the cockpit is clear of the water, allowing it to be drained. The kayak is then righted and pushed back into the water and supported for the victim to re-enter.

Eskimo rescue
The Eskimo* rescue is useful, since the victim does not have to leave their kayak. On capsize the victim remains in their kayak in the tuck position and bangs hard on the hull to attract attention. The arms are then moved slightly away from the hull and waved back and forward waiting to feel the rescuer’s bow. The rescuer aims at the nearer end of the victim’s kayak, grabs it with both hands, and swings their bow within reach of the victim who can then roll up on it.

*The word ‘Eskimo’ means ‘eater of raw meat’, a derogatory term. The Arctic peoples called themselves Inuit, ‘the people’.
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Towing

There is always the possibility that a group member may become incapacitated by illness or injury, and is then unable to keep up with the group’s pace or even paddle on at all. This paddler will need to be assisted to a safe landing.

If the distance is short, the tow can be done by having the incapacitated paddler lean on your foredeck while you continue paddling, reaching over the other boat to put the blade in on that side. Short tows can also be done using paddle leashes, loops in deck lines and so on. For padding any distance however, a proper towline is necessary.

Towlines exist in two main forms: those attached to the paddler, either as a belt or as part of a PFD harness, and those attached to the boat. The latter is preferred at sea, where the forces can be considerable, and tows tend to be over longer distances. (Towing at sea is described in greater detail in the ‘Perform deep water rescues: Sea’ module.) A length of shock cord in the system can be used to take up the ‘snatch’. Whichever system is used, it must be easy to deploy and have a reliable quick-release system.

Towing requires skills that should be developed in calm conditions before they are needed in a real situation. Towing in heavy seas and high winds or fast flowing water is demanding of both paddling skill and energy reserves. Towing also requires effective group management. Regular practice is worthwhile.

At the start of a tow it is essential that all group members are aware of their role. The paddlers who are in good condition should perform the tow. If one paddler is having difficulty there are usually others who are also not coping as well. The towline should be attached to the bow of the patient’s kayak and deployed gradually as the tower moves forward to prevent entanglement. This should be done quickly as there is a risk of impact injury or equipment damage if kayaks are thrown together in rough conditions. Towing requires more energy and concentration and should be rotated through the group at regular intervals. Compatible towline systems make it possible for a single line to be passed from paddler to paddler in turn.

There are other variations of this technique, however this is the safest and preferred method.

Key points

• The rescuee waits in the boat, tapping on the hull, running their hands along the sides of the boat, and swimming up for air if need be
• The rescuer aims at the nearer end of the rescuee’s boat, grabs it with both hands, and swings his or her own bow within reach of the victim, who can then roll up on it.

Deck carries

If a paddler has been separated from their kayak or their kayak has been severely damaged it may be necessary to carry them to safety on the rescuer’s boat. A paddler may also come across a swimmer in need of assistance. There are several carry methods.
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Another paddler should be positioned alongside the patient to provide emotional support and monitor their condition. If the patient appears in danger of capsize the support paddler should quickly form a raft with them. A capsize in these circumstances will most certainly lead to complications.

Communications from the towers to the patient are difficult, particularly in windy conditions. As a tower it is difficult turning around to check the condition of the patient, and a ‘point’ paddler out to the side of the tow can keep an eye on the whole set-up and relay messages.

There are several towing methods that can be used depending on the conditions, the ability of the group, and the level of incapacity. A single tow is used where the incapacity is slight or for a tired paddler who is able to provide some power and directional control.

Towed boats have a tendency to wander, and must be kept in line behind the towing craft by the paddler steering as necessary. Care must also be taken to avoid catching up to the towing craft or jerking the towline suddenly.

A double tow is performed by two paddlers assisting the incapacitated paddler and can be an in line or V formation. This may be useful when battling into head winds or where the patient is unable to paddle. The tow will be faster, but the towers must be careful to maintain their direction and separation.

Supported tows are necessary when the incapacitated paddler cannot support him or herself. Another kayak can be rafted to the patient’s boat for support and reassurance. A double tow is essential if good progress is to be maintained. The supporting paddler will use considerable energy controlling the patient’s kayak and keeping the raft together, so supporters need to be changed at regular intervals.

Key points
- For flat water use the towline can be short, 5 meters or so, while sea boats will need towlines as long as 15 metres
- Stow the towline where it is readily accessible, but not where it will be in the way
- Single tows require that the rescuee steer straight behind the towing kayak, otherwise the boat will veer from side to side. If necessary, have a third person supporting the incapacitated paddler
- With someone completely unable to paddle and requiring constant support, the double tow may be required
- Keep the towing boats parallel about two metres apart (interesting in heavy conditions)
- Having the strongest and fastest member of the group tow the slowest member can be a useful method of keeping a group together: almost like putting the two together in a double

Acknowledgement
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