Assisted Rescue Methods

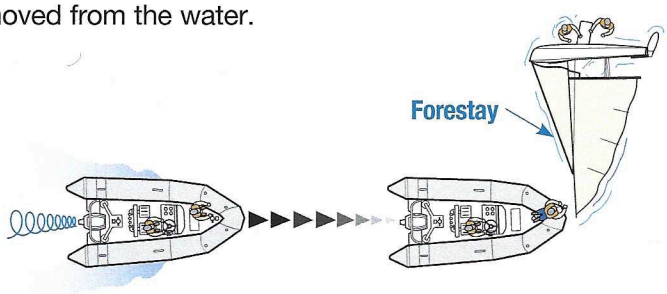
Assisted rescues cover situations where a safety-rescue boat needs to move in and perform a rescue of a capsized boat and its sailors. The rescue methods described in the following pages are broken into three types of situations:

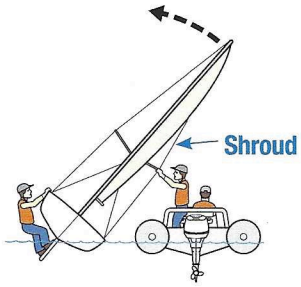
- A sailboat has capsized onto its side with its sails floating on or near the surface of the water. These rescue methods would apply:
  - Mast Tip Lift Rescue
  - Centerboard Push Rescue
  - Pram Capsize Rescue
  - Capsized Catamaran Rescue
- A sailboat has turtled and is floating upside-down. The following turtled boat rescue methods can be used for this situation:
  - Centerboard Hug Rescue
  - Sliding Weight Rescue
  - Rollover Rescue
  - Rollover Rescue with a Stabilizing Line
  - Turtled Catamaran Rescue
- A sailboat has turtled and is floating upside-down, but its mast has hit the bottom and is stuck. These rescue methods would apply:
  - Centerboard & Bow Line Rescue
  - Corkscrew Rescue
  - Shroud Pull Rescue
  - Safety Boat Push Rescue
  - Disconnect the Mast Rescue

ONLINE... Rescuing a Capsized Sailboat: http://www.uspowerboating.com/videos/

Capsized Boat Rescues

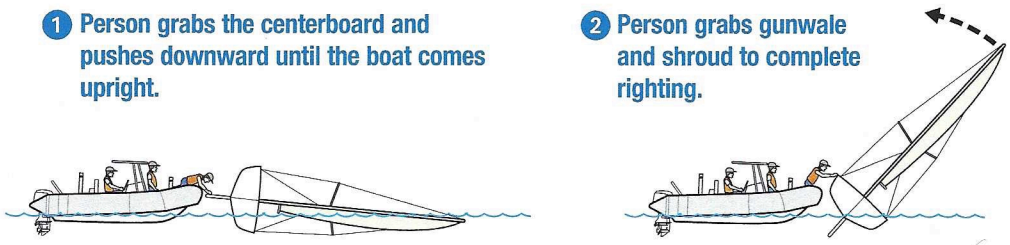
Mast Tip Lift Rescue. This method can be used if sailors are in or removed from the water.





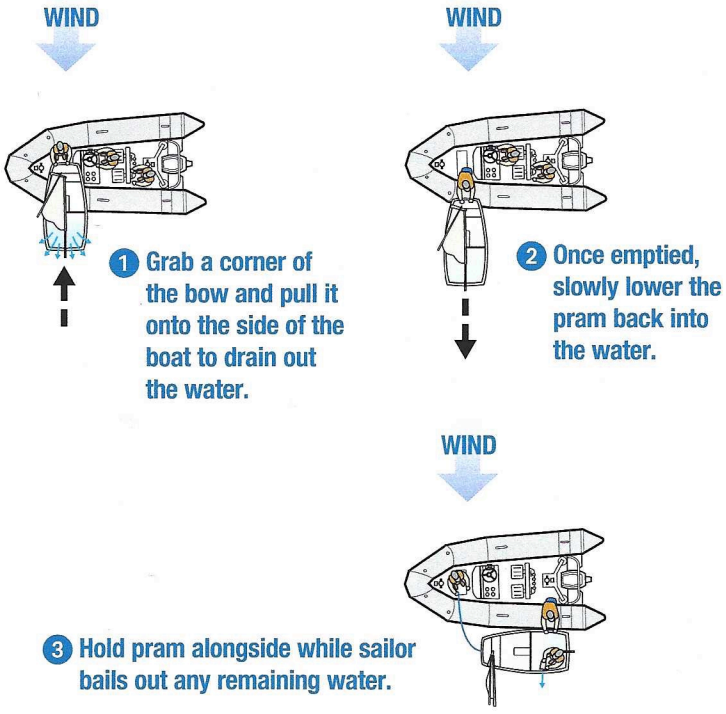
1. Using minimum control speed, slowly approach from a direction forward of the mast. This keeps the powerboat from running over the mainsail and avoids interference with the sail as the boat comes upright.
2. Make contact near the top of the mast and turn off the engine. If the mast tip is submerged too far below the water to reach, then approach the boat perpendicular to the forestay, grab the forestay or shroud and walk hand over hand up the mast.
3. Lift the mast tip and move hand over hand down the mast and shroud to bring the boat upright.

Centerboard Push Rescue. If the sailors are in the safety-rescue boat, the centerboard push method will perform successfully for most situations.



Pram Capsize Rescue. The Centerboard Push method is typically used for a capsized pram. Because of the shape of its hull, a pram may have significant water in it as it comes upright. There are two methods for removing the water. One method is to have the sailor bail out the water while the safety-rescue boat holds onto the pram. Another method involves bringing the sailor onto the safety-rescue boat and draining most of the water by lifting the bow of the pram onto the side of the safety-rescue boat. This second method is described below.

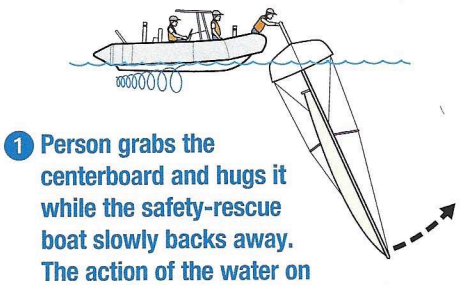
Draining a Pram. Start by removing the daggerboard from the pram and bringing the sailor onto the safety-rescue boat, then perform the following steps.



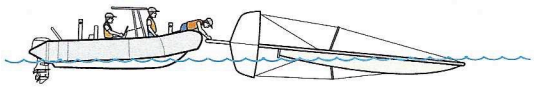
Turtled Boat Rescues

Righting a turtled boat should be done cautiously to prevent the safety-rescue boat from damaging the sailboat by putting too much strain on the sailboat and its rigging. You must evaluate and analyze the situation and exercise your best judgment as to what is the safest and most reasonable response. The basic concept is to rotate the sailboat out of its turtled upside-down position to a normal capsize position where the boat is lying on its side with the sails lying near the surface of the water. Before you start, make sure that the mast is not stuck in the mud. Experiment and practice rescue methods on a variety of boats to determine which methods work best.

Centerboard Hug Rescue. Try this method if the crew can reach and hold onto the centerboard.



1 Person grabs the centerboard and hugs it while the safety-rescue boat slowly backs away. The action of the water on the sail will cause it to rise toward the surface.

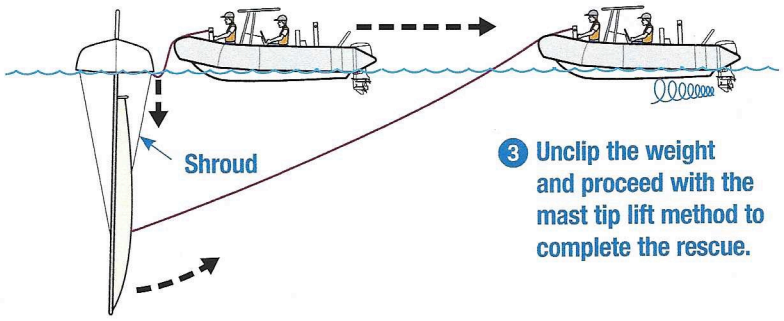


2 When the boat rotates onto its side, use the centerboard push or mast tip lift method to complete the rescue.

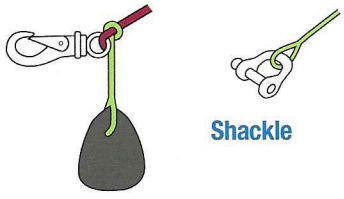
Sliding Weight Rescue. This method works best on boats with no **spreaders** so that the weight can slide down the shroud to where it is attached to the mast. To use this method, the safety-rescue boat should be equipped with 100 feet of line with either a large "D" shackle, or a weight and snap hook.

1 Clip the weight or shackle to the leeward shroud and let it run down the shroud.

2 Back off and gently pull until the boat rotates onto its side.



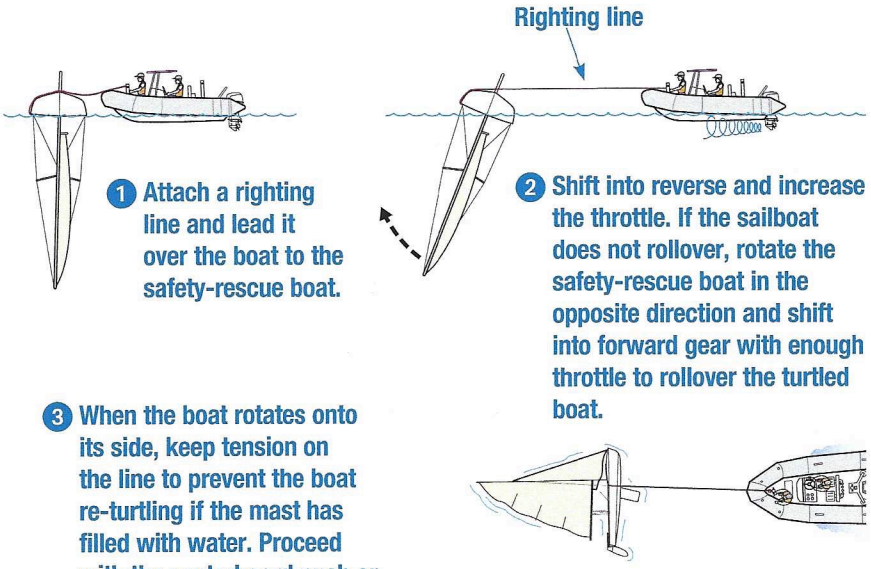
3 Unclip the weight and proceed with the mast tip lift method to complete the rescue.



Shackle

Weight with snap hook

Rollover Rescue. Safety-rescue boat operators have reported varying results with this method. It works for some types of sailboats, but you must be patient to allow time for the forces to start rotating the boat once you've applied a steady load on the righting line. It could take several minutes before you notice any movement. The sails in the water resist the rotation, but this resistance will decrease as the sails rotate out of their vertical position. Whether the righting line crosses forward or aft of the centerboard will vary with the type of boat.

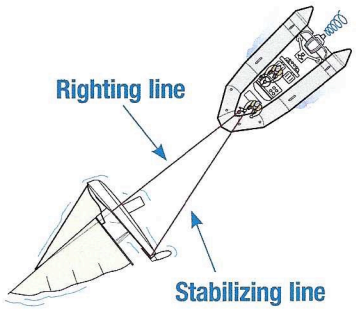


Rollover Tips

- Some safety-rescue boat operators prefer to pull on the righting line in forward gear for increased towing power. Also with the bow moving forward into the waves, it avoids the problem of water coming over the transom when backing in reverse.
- The righting line may be attached to the chainplate fitting (connects the shroud to the hull) or to the end of the jib sheet. A large carabiner at the end of the righting line will speed up the attachment.
- Tying the righting line to a towing bitt located near the safety-rescue boat's point of rotation increases its maneuverability.

Note: If the mast is full of water and the mast tip method is used, the safety-rescue boat will need to maintain tension on the righting line as a second boat maneuvers into position at the mast tip.

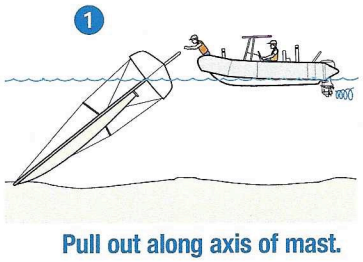
Rollover Rescue with a Stabilizing Line. At times it may be difficult to maintain the perpendicular angle of the righting line to the sailboat if the bow aligns with the tow. A stabilizing line attached to the transom will overcome this problem.

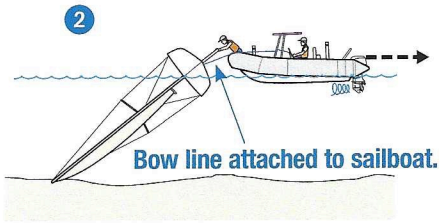


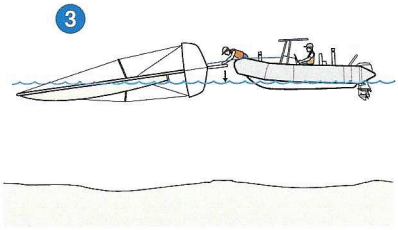
Turtled Boat Rescues with Mast Stuck in Mud

Ideally, the mast should be pulled straight out of the mud along the axis of the mast without any sideways pull to avoid bending or breaking the mast. Since this is extremely difficult, the objective is to come as close as possible to replicating that straight pull force. Each of the methods described below has different factors that need to be considered for different boats and different conditions.

Centerboard & Bow Line Pull Rescue. This method most closely reproduces the desired angle of pull and is simple. It works best if the mast is stuck at an angle to the bottom and not firmly embedded. If the centerboard is too slippery to grip, use a large rolling hitch or clove hitch slipped over the centerboard.

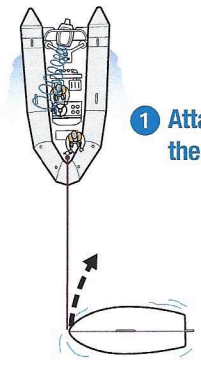




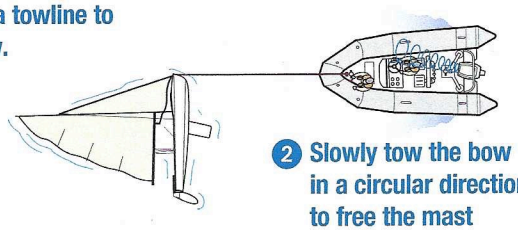


1. Approach the centerboard side of the capsized boat.
2. Person at bow holds onto centerboard while the driver holds onto the bow line and gently backs boat.
3. Once the mast is free, proceed with the centerboard push or mast tip lift method to complete the rescue.

Corkscrew Rescue. This method can be used if the mast is not firmly or deeply embedded in the bottom. As soon as it becomes apparent that the mast will not come free easily, stop and use another method.



1. Attach a towline to the bow.

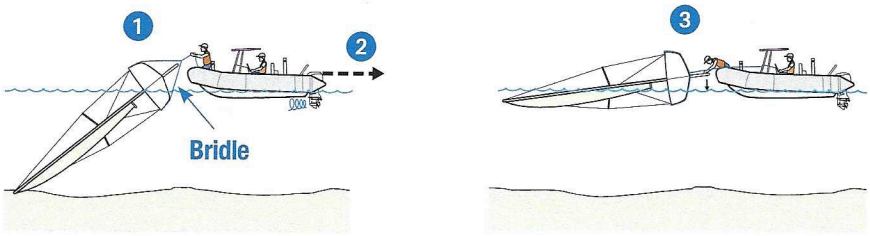


2. Slowly tow the bow in a circular direction to free the mast and cause it to rise toward the surface.

3. Once the boat rotates onto its side, use the mast tip lift or centerboard push method to complete the rescue.

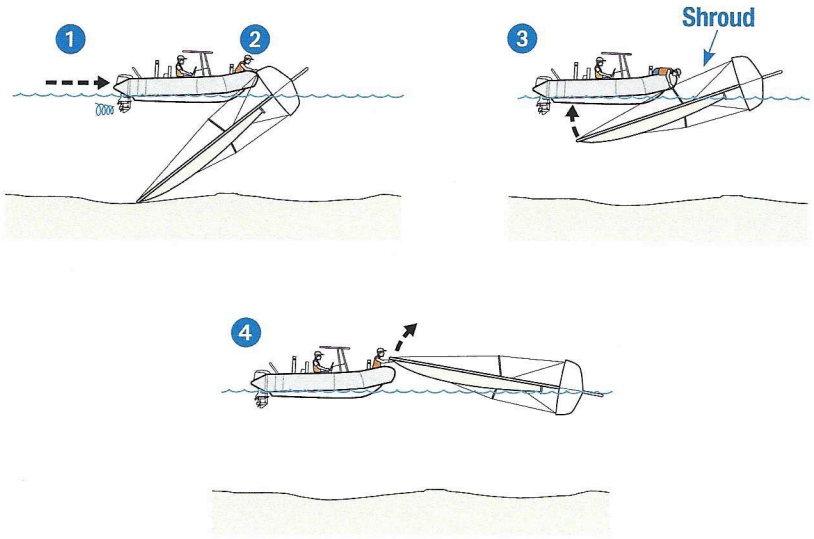
Shroud Pull Rescue. Attaching a bridle will help to get a better pull at a desired angle.

1. Attach a bridle to both shroud chainplates.
2. Shift into reverse and gently back away.
3. When the boat rotates onto its side, detach the bridle and proceed with the centerboard push or mast tip lift method.



Safety Boat Push Rescue. This method is recommended only for experienced safety-rescue boat operators using inflatable boats or a padded bow. It is not advisable to use this method in rough water conditions.

1. Slowly bring the bow near the cockpit of the capsized boat.
2. Person at the bow grabs hold of the capsized boat and pushes while the safety-rescue boat gently drives forward.
3. As the boat rights, the bow person grabs the shroud and moves hand over hand to the top of the mast while keeping the safety-rescue boat clear.
4. Once the boat is on its side, proceed with the mast tip lift method.



Disconnect the Mast Rescue. Use this method as your last option. It is best suited for a boat where the mast does not pass through a hole in the deck or cabin top; otherwise there is a risk of damage to the mast or boat.

1. Disconnect the mast from the boat by unfastening the shrouds, forestay and lines from the hull.
2. Attach flotation to the mast to mark its location.
3. Tow the hull away.
4. Return to the mast and pull it out of the mud.