

EVACUATION BY SHIP

In a ship-to-ship rescue, the greatest risk is collision. Be prepared to lose your vessel in this situation. The typical ship-to-ship rescue scenario involves a large merchant ship with very limited manoeuvrability approaching a smaller vessel in distress with almost no manoeuvrability. Because you cannot practice bringing a small boat alongside a commercial ship in a gale, this rescue tactic can prove difficult. "Even under ideal circumstances, it is highly dangerous, heart in the throat, adrenaline fuelled action," said a transpacific racing sailor who abandoned ship and was aided by a huge container vessel.

In rough seas, never secure a boat or raft to the rescue vessel. The constant battering of the two hulls is likely to damage, and may sink, the smaller craft. Unless the rescue craft is designed for rescue work, the captain and crew experienced, and the seas relatively calm, it is much safer to use a smaller craft to transfer personnel between the boats.

Transfer options include a rigid-hull inflatable boat (RHIB), lifeboat, or even a life raft. The transfer of personnel between ships is especially hazardous if sick, injured, or exhausted crew members are required to climb a cargo net or pilot ladder. Under the best of circumstances, it can be extremely difficult even for a healthy crew member.

Whether to approach the rescue vessel upwind or downwind depends on the wind, sea, and size and relative drift of the two vessels. The advantages and disadvantages are similar to those for retrieving a person overboard. Becoming pinned and capsizing are risks when sitting in the lee (downwind) side of a large, rolling ship. Nevertheless, a large rescue ship most often approaches upwind of the distressed craft, unless the ship's rate of drift is much greater than that of the craft. This relative positioning creates a calmer sea in the lee of the rescue vessel as it slowly drifts down to the survivors' craft. If you have deployed a sea anchor, pull it in to prevent entanglement in the rescue vessel's propeller.

Once both vessels are situated, remain calm, and do not rush to board the ship. Follow these recommendations:

1. Wait to see if a lifeboat or rescue swimmer is lowered to facilitate the transfer.
2. Attempt to communicate on channel 16 with the rescue craft to coordinate the rescue.
3. Clarify and follow instructions carefully to ensure safety.
4. If the raft is to be lifted aboard with injured survivors, be sure the floor is fully inflated. Attach the lifting lines to the towing bridles on both sides of the raft and attach two steadying lines to each side as well.

Never attempt to scramble up a net, pilot ladder or Jacob's ladder without a safety line. When transferring to a rescue ladder, wait until the craft you are departing is on the crest of a wave. At that moment, you will be as high as possible on the ladder and the craft you are leaving will drop down while you ascend the ladder. This eliminates the danger of the craft rising up on a wave and striking you. Your safest option is to be hoisted up to the deck in a harness by a deck cargo crane.



EVACUATION BY HELICOPTER

Helicopter emergency evacuation and rescue is now commonplace within 483 km (300 miles) of the coastline. The pilot will radio a detailed briefing to you when the helicopter is en-route to your location. Assign a crew member to monitor the radio and listen for the pilot's radio briefing, usually on VHF channel 16, or SSB at 2182 or 4125 kHz. Maintain radio contact with the pilot until the evacuation is complete.

Secure all loose gear onboard, including cockpit cushions, coils of line, winch handles, dive gear, hats, and clothing. Any gear not secured on deck will become a flying missile in the 161 km/hr (100 mph) downdraft generated by the helicopter. This debris may be sucked into the intake of the helicopter's engine or become tangled in the rotor blades.

All crew on deck should wear lifejackets. Add extra clothing layers because the helicopter's downdraft creates a wind chill effect. Avoid shining flashlights on the helicopter; the light may blind the pilot and rescue team. For the same reason, never fire aerial flares in the vicinity of a helicopter.

The rescuers will use either a rescue basket or a Stokes litter to lift the victim into the aircraft. Selection depends on the victim's medical condition and his or her need to remain horizontal during the hoist. The horizontal position is particularly important for persons with spine injuries or severe hypothermia. Rescuers prefer the basket for lifting. It is easy to enter, especially in rough weather, and has positive flotation to prevent sinking. The basket will settle on the sea surface, enabling someone in the water to float into it and fasten the straps.

In some situations, however, rescuers may prefer to use a "horse collar" sling, a padded loop that is placed over the body, around the back, and underneath the armpits. During the hoist, the line remains in front of the victim's face. Regardless of whether the rescuers use a basket or hoist, the victim should always wear a PFD and follow directions for securing the safety straps.

The helicopter builds up static electricity travelling to the rescue scene, and the charge is transferred down the cable to the basket or sling. Allow the device to touch the deck or the water to discharge any static electricity before grasping the support cable; otherwise, you will experience a strong, but nonlethal, electric shock. The orange steadying line, which is lowered first, is safe to handle and will not produce any shock.

Unhook the hoist cable only if it becomes necessary to move the basket/litter below decks; once unhooked from the basket, release the cable to be hauled back to the helicopter. When it is time for the cable to be lowered again, allow the hook to ground on the vessel, and then reattach it to the rescue device. *Never attach the hoist cable or the steadying line to any part of your vessel or life raft*, even temporarily. The winch operator, who is intently watching the hoist cable, will instantly sever the cable from the hauling winch to prevent disaster with the helicopter.

The downdraft from the chopper's blades may capsize the raft, especially if the raft has small ballast pockets. Similarly, rafts loaded to capacity with crew become increasingly unstable as the occupants are removed and winched aboard the helicopter. The survivors should sit on the roof and on the inflated support arch to decrease the amount of surface exposed to the downdraft. Evacuate the strongest crew from the raft last. A rescue swimmer from the



helicopter crew will assist when a sick or injured crew member is transferred from the ship, or crew are required to jump into the water to be hoisted aloft.

You may also use a raft as an intermediate rescue platform between your distressed vessel and the helicopter. This is especially useful if your boat's mast and rigging interfere with the positioning of the helicopter or threaten to entangle the basket hoist. In this situation, allow the raft to drift downwind, attached to your vessel by a line. The helicopter pilot cannot see the raft directly below; therefore, the winch operator guides the rescue operation.

When being winched up by cable and harness, follow directions to secure yourself, and wear your life jacket. Since it is much easier to put on the helicopter's rescue harness when not encumbered by a bulky life vest, if you are wearing an integrated safety harness and inflatable life vest, it may be preferable to leave the vest uninflated when being hoisted from the ship.

Helicopter Evacuation Rules:

1. Assign crew to monitor radio and listen for pilot's radio briefing on channel 16.
2. Activate EPIRB and notify the MRCC.
3. Secure all loose gear on deck, lower poles, and remove snags.
4. Personnel on deck should wear PFDs (and survival suits, if available).
5. Avoid shining flashlights at helicopter.
6. Never fire aerial flares in direction of helicopter.
7. Manoeuvre boat so wind is 45° off port bow.
8. Follow commands of rescue swimmer.
9. Discharge static electricity: allow litter or basket to touch water or boat.
10. Unhook hoist cable if moving the litter.
11. **Never** attach hook or any other line to the vessel.

