

28A Helicopter Evacuations Procedures by Canadian Forces Search and Rescue Helicopters

Helicopter medical evacuations are a serious matter. Since they can be hazardous to both the patient and the helicopter crew, they should be used only as a last resort to prevent death or permanent injury. If you are out on a fishing boat, for example, and one of the crew members suffers a slight injury, you should NOT request a helicopter medical evacuation so that you might continue fishing.

The Joint Rescue Co-ordination Centre/Maritime Rescue Sub-Centre (JRCC/MRSC), if it is to intelligently evaluate the need for evacuation, must be presented with a clear picture of the situation. You can speed the process by having the following information ready:

- (a) Name of vessel, call sign, position, course and speed.
- (b) Patient's name, age and sex.
- (c) State of consciousness.
- (d) Respiration rate and difficulty or pain associated with breathing.
- (e) Pulse rate, strength and regularity; temperature of patient.
- (f) Nature and specific location of pain. Is pain dull, sharp, continuous, intermittent, confined to a small area or widespread?
- (g) When injury occurred and cause - blow, burn, fall - nature of wound, cuts or bruises. State if patient has been moved.
- (h) Determine amount of bleeding.
- (i) Describe any deformity or abnormal functioning on the part of the patient.
- (j) What treatment has been given and how patient has responded.
- (k) ETA destination/intentions.
- (l) Agent's or owner's name, address.
- (m) Frequency vessel standing by on and other back-up frequencies available.
- (n) If helo is to be involved: position on the ship best suited for helo hoist - clear of obstructions - and frequency for helo to contact vessel on.

NOTE 1: The details on the patient's conditions are necessary because, based on this information, the Regional Surgeon will or will not approve the use of a helo.

NOTE 2: You should advise the Coast Guard immediately if any of this information changes.

NOTE 3: The Coast Guard should be advised immediately if the evacuation by helicopter is no longer required due to alternate arrangements or if the patient expires.

In addition to regular communication methods, Masters of ships may obtain medical advice by addressing a radio-telegram to "Radiomedical" and routing it via the nearest Marine Communications and Traffic Services Centre which will refer to the appropriate regional medical authority and transmit the reply to the ship.

Preparations

Most rescue helicopters can proceed less than 150 miles offshore (from a fueling point), and then only if weather conditions permit. If an evacuation is necessary, you must be prepared to proceed within range of a helicopter. If you are beyond helicopter range, you must be prepared to change course as directed by the Coast Guard, so that a rendez-vous point can be selected.

Once the decision has been made to evacuate your patient, you should make the following preparations:

- 1 Provide continuous radio guard on 156.8 MHz (Channel 16 VHF-FM), 2182 kHz, Channel 70 VHF DSC or other specified voice frequency.
- 2 Select and clear the most suitable hoist area, preferably aft on the vessel, with a maximum radius of clear deck. (Ideally 16 metres or 50 feet radius). Secure loose gear, the headgear worn by the crew at the hoist area, awnings and antenna wires and trice up running rigging and booms. If hoist is aft, lower the flag staff. The foredeck should be prepared only when the stern and amidships area cannot possibly be used. Be sure to advise the helicopter before it arrives, so that the pilot can make his approach to aft, amidships, or forward, as required. If the bow area is used for the hoist, then the speed should be brought to minimum steerage speed and alter the course to place the wind 090°- 120° off the starboard quarter, (i.e., wind from the North, the vessel heading South-West). If the stern area is used for the hoist, then the speed should be minimum steerage speed or best maneuvering speed and alter the course to place the wind + 015° to 030° on port bow, (i.e., wind from North, the vessel heading would be 015°- 030°). Generally, the vessel should steer in a direction that will provide the most stable platform and, if possible, allow the helicopter to face into the wind when the helicopter is established over the hoist area. The vessel should maintain steerage speed or the best speed for the prevailing conditions during the hoist.
- 3 Point search lights vertically to aid the helicopter crew in locating the ship. Turn them off when the helicopter is on scene.
- 4 If the hoist is to take place at night, light the pickup area as well as possible. *Be sure that you do not shine any lights on the helicopter because they will blind the pilot.* Put lights on any obstructions in the vicinity, so the pilot will be aware of the position. A fixed wing aircraft may also illuminate the area with parachute flares during the hoisting operation.
- 5 Remember that there will be a high noise level under the helicopter and that voice communications on deck will be virtually impossible. Arrange a set of hand signals to be used among the crew members who will assist.
- 6 Leave the patient in a warm dry area. A SAR Tech that will be lowered to the vessel will evaluate the patient's condition and organize the hoisting of the patient to the helicopter.
- 7 Make sure the patient's documentation is available - passport, visa, hospital insurance card, etc. as well as his medical record - should be in an envelope or package, ready for transfer with them.
- 8 Have a life jacket available for the patient but do not put the life jacket on the patient until the SAR Tech has examined them.

Hoist operations

- 1 Change course to permit the ship to ride as easily as possible, with the wind preferably as referred in paragraph 2 of *Preparations*. Try to choose a course to keep the stack gases clear of the hoist area.
- 2 Reduce speed to ease ship's motion but maintain steerage-way.
- 3 When you are ready for the hoist, signal the helicopter. If you do not have radio contact, signal "come on" with your hand or, at night, use flashlight signals. Once direct communications are established with the helicopter, their instruction will take precedent.
- 4 Allow the SAR Tech to touch the deck before assisting them, to avoid static electrical shock. **DO NOT CONNECT ANY LINE LOWERED FROM THE HELICOPTER TO YOUR VESSEL;** merely tend it by keeping a moderate tension on it by hand.
- 5 The SAR Tech will coordinate all subsequent actions with the helicopter. The helicopter will provide all necessary equipment.

- 6 Once the SAR Tech is on board, the helicopter will retract the hoist hook clear. When the litter and patient have been returned to the hoist area, the hoist hook will be lowered for attachment by the SAR Tech.

NEVER ATTACH THE HOOK TO YOUR VESSEL

By following these procedures you can help ensure that a helicopter evacuation, if one is necessary, will be performed safely and as quickly as possible.

Authority: Canadian Coast Guard (Search and Rescue)