The School For
Mountain Leadership

HELICOPTER RESCUE
TRAINING HANDOUT
No 2 : HELICOPTER STRETCHER HOISTING

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This training handout is an aide-memoire for students who have completed the appropriate training. Do NOT attempt these techniques without proper training – getting it wrong can be lethal!

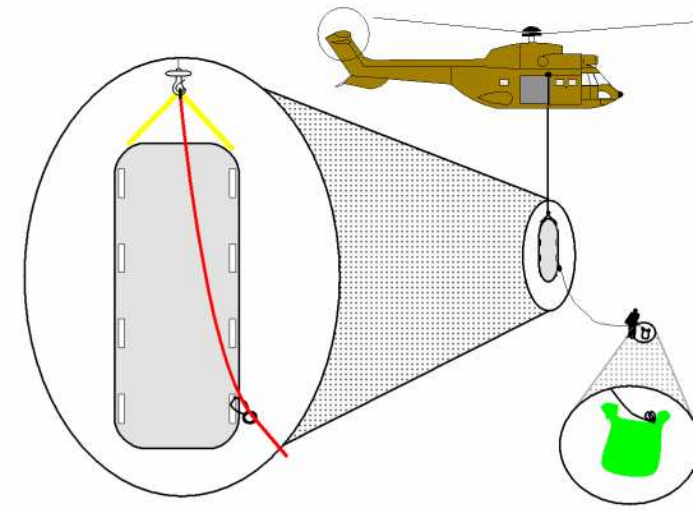
One of the main attractions of using helicopters as a rescue tool is their ability to deliver a rescuer to almost anywhere and to retrieve people from awkward locations. Sometimes this is relatively easily achieved by landing the aircraft. However, the aircraft is often unable to land and the injured person has to be hoisted (winched) off the ground into the helicopter in a stretcher.

Equipment required per patient:

- ✓ 1 x stretcher suitable for helicopter hoisting
- ✓ 1 x stretcher bridle suitable for hoisting
- ✓ 8 x locking carabiners
- ✓ 1 x rope for a tag-line / back-rope
- ✓ 1 x patient packaging kit

En route to the rescue:

- Install a sling in the back of the aircraft to secure the stretcher.
- Most services use solid basket stretchers. It is best to hoist these out of the aircraft in a vertical configuration. Rig the stretcher with the bridle. Put a carabiner onto the foot end of the stretcher.
- Assign a rescuer to be hoisted out of the aircraft before the stretcher and give them the rope and a carabiner. Tie a knot in the end of the rope (eg: Figure-8 on a bight) and attach the carabiner. Put the rope into the rescuer's backpack for hoisting out of the aircraft if it isn't in a rope bag.



On arrival on scene:

- If you are unable to land nearby then hoist out enough team members to create space to work, including the rescuer with the rope.
- As soon as the rescuer with the rope arrives on the ground he makes ready by connecting the carabiner on the end of the rope to the hoist hook. He pays out rope as it returns to the aircraft.
- Inside the aircraft the remaining rescuers connect the hoist hook to the stretcher bridle then connect the rope through the carabiner on the foot end of the stretcher.

- The stretcher is manhandled out of the door and hoisted down to the ground. The rescuer on the ground will stand under the aircraft and apply sufficient tension to prevent the stretcher from flapping around. Once the stretcher is on the ground disconnect it from the hoist hook.

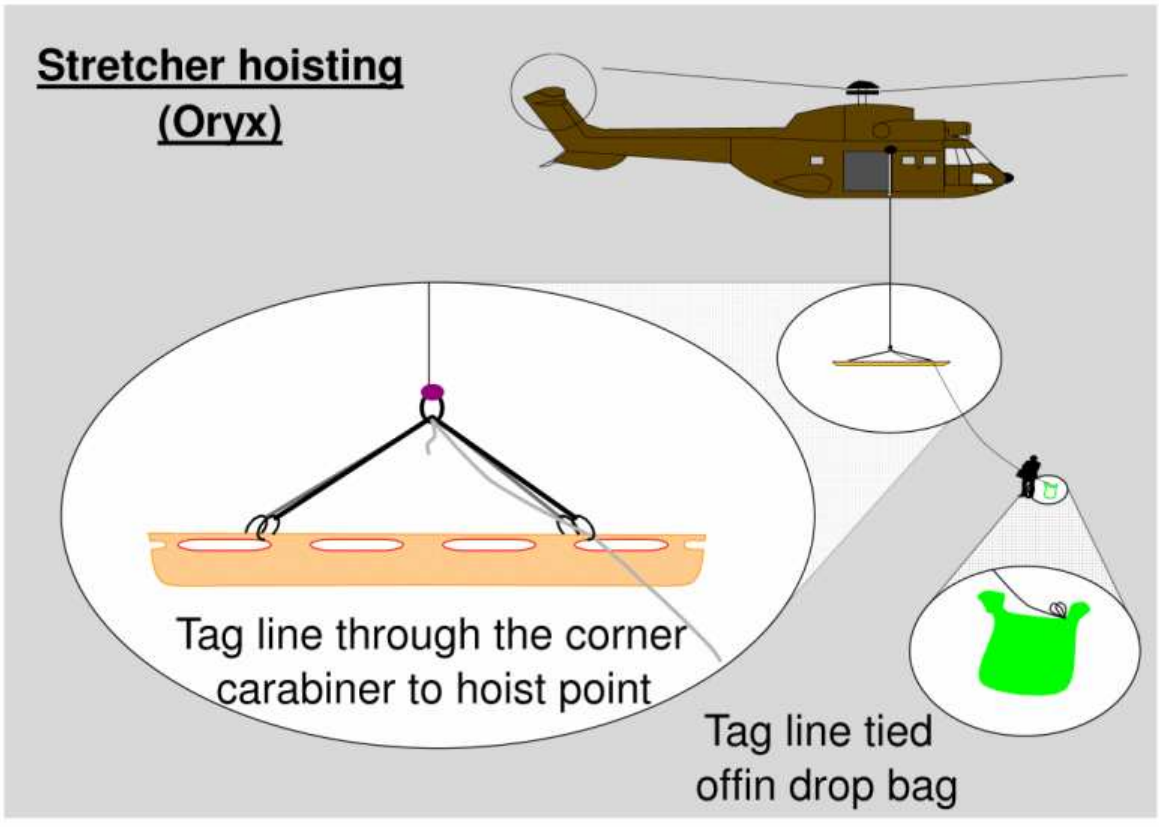
- Package the patient, ensuring that there is no chance of the patient being ejected from the stretcher by any means.

- Rig the stretcher bridle.

- Anticipate which way the aircraft will be facing during the hoist (wind & escape routes). Position the tag-line so that the tag-line operator is visible to the pilot (45° off the nose of the aircraft). Position the tag-line operator as far from the stretcher as you anticipate the height of the hoist being. In other words, for an anticipated 20m hoist put the operator 20m away from the stretcher if possible. The tag-line operator should then pay out twice as much rope as the distance from him to the stretcher and then tie off the rope bag, Weight the rope bag if necessary.

- Secure the tag-line to the bridle with a carabiner and Slip Hitch (Munter-Mule combination). Ensure the tail is long enough for the jockey to release it.

- When the jockey is satisfied with the setup he signals to the aircraft to commence the hoist. Once the stretcher is hooked up the jockey signals the engineer to hoist.



- When the jockey can touch the aircraft he releases the tag-line.

- The stretcher is pulled into the aircraft and clipped into the restraing sling in the back of the aircraft.
