



Hover Exit Guidelines

V 2.0

Revised March 2018

Preamble

The wildland agencies in Canada have developed a Hover Exit Training Standard for the purpose of personnel exchange between CIFFC agencies. This document has been revised to conform to this training standard.

The fire personnel training requirement has been updated; as well as Appendix 1 (Agency specific Matrix) and Appendix 2 (Hover Exit Decal).

Disembarking from a helicopter in a hover can be accomplished safely providing the personnel are trained in the maneuver. The movement of personnel and equipment must be pre-planned and practiced. Personnel must have an appreciation of why these moves are made and the results and effects of movement on a hovering helicopter.

It must be clearly understood that hover exiting and boarding are much less desirable than a full skid landing. The option to hover exit one or more firefighters with a chainsaw to improve the site in order to facilitate a full skid landing is preferred and should be exercised where possible.

The procedures within this document should only be used where no other reasonable option exists and only with the full consent of the Pilot-in-Command of the helicopter.

Ultimately the pilot has overall authority for the hover exit maneuver. However, all personnel involved have a shared responsibility to ensure the operation is conducted safely. Each individual has not only the right, but also the obligation to halt the procedure should they feel their own, or another person's safety is compromised.

1.1 Introduction

1.2 Purpose

The purpose of this document is to outline standard operating guidelines to be available for use by all CFFC member agency staff when exiting or boarding a hovering helicopter. Individual agency policy dictates whether their staff are trained or allowed to perform some of the hover exiting or boarding options outlined within this document (ie. high hover exits are not conducted by all agencies). Please see Appendix 1 Matrix for details.

1.3 Definition

A hover is a state in which the helicopter is under power and the pilot must manipulate the flight controls to maintain a stable attitude. This could be free of, or in partial contact with a grounded surface.

A helicopter in full-skid contact with an unstable surface, that requires the pilot to make flight control adjustments, is also considered to be in a “hover” for the purposes of this document. The evaluation of the stability of the surface to necessitate a hover exit is at the discretion of the Pilot-in-Command.

The implications for a fire crew member are the same for all hover exits: they must ensure a smooth transfer of weight from the helicopter to the ground.

Additionally, all weight transfers within the cabin must be steady, deliberate, and smooth.

1.4 Transport Canada Authority

Canadian Aviation Regulations and Commercial Air Service Standards provide the authority for conducting hover exits. The applicable sections are as follows:

CAR 602.25 (2) (b)

2) No pilot-in-command of an aircraft shall permit a person to enter or leave the aircraft during flight unless

(b) the entering or leaving is permitted under section 702.19;

702.19 For the purposes of paragraph 602.25(2)(b), the pilot-in-command of a helicopter may permit a person to enter or leave the helicopter in flight

(a) where

(i) the helicopter is operated at a low hover,

(ii) the person is able to enter directly from or alight directly onto the supporting surface,

- (iii) the air operator is authorized to do so in its air operator certificate, and
- (iv) the air operator complies with the Commercial Air Service Standards;

722.19 Entering or Leaving a Helicopter in Flight

Authorization to permit a person to enter or leave a helicopter in flight other than by external load attaching means is subject to the following standards:

- (a) operations are conducted under day VFR conditions while the helicopter maintains a stabilized hover;
- (b) the longitudinal and lateral center of gravity shall be calculated for embarking and disembarking operations and shall not exceed the limitations of the applicable flight manual. The operating weight shall be calculated and shall not exceed the applicable weight/attitude/temperature (WAT) hover performance charts for the helicopter type and configuration at the operating altitude;
- (c) persons to be embarked or disembarked have been instructed on related hazards and techniques;
- (d) crew members shall be trained in accordance with section 722.76 of the *Commercial Air Services Standards*;
- (e) any equipment or cargo to be loaded or unloaded shall be secured to prevent shifting in flight except during loading and unloading. Cargo or equipment shall not be loaded or unloaded from a baggage compartment remote from the main cabin unless the applicable center of gravity calculation is completed and cargo handlers have been instructed on procedures; and
- (f) the air operator's Company Operations Manual content includes embarking and disembarking operational procedures, briefing procedures and crew member training requirements.

1.4 Safety of Procedure

The safety of the operation is paramount. All personnel onboard an aircraft have the authority to say "NO" to a particular situation or procedure they are not personally comfortable with. It shall be recognized by the pilot and crew that, should this occur, the situation or procedure shall not continue until;

- conditions have changed
- other alternatives are sought
- the individual has been provided with additional information, training or briefings to remove doubt as to the safety of the flight
- **"ONE NO IS A No-Go"**

1.5 Hover Time Benchmark

Hover time shall be kept to a minimum. Extended time in the hover increases pilot work-load and exposure to the risk.

2.1 Conditions and Criteria for Hover Exits

2.2 Communications

All helicopters that are required to conduct hover exit operations shall have the ability to conduct hot (hands free) communications between the pilot and the crew leader. The first person to exit the helicopter shall have a functioning radio (preferred to have earpiece or headset) to facilitate communication. It is noted that during high noise situations, hand and other non-verbal signals are most often the primary forms of communication.

2.3 Exiting

Exiting in a hover shall only be conducted by trained personnel engaged in wildland fire management operations who have received the initial annual training and any required proficiency maintenance, as required by their agency throughout the fire season.

2.4 Boarding

Boarding in a hover shall only be conducted by trained personnel and in situations where no other reasonable option exists. Hover boarding is not permitted by all agencies. Please see Appendix 1 for agency-specific permissions.

2.5 Flight Conditions for Operation

Hover exit operations shall only be conducted under day VFR conditions while the helicopter maintains a stabilized hover that will permit persons to safely deplane.

If a stabilized hover cannot be accomplished, the operation shall be aborted until conditions for a stabilized hover exist.

2.6 Doors

Only the doors required for unencumbered safe operations shall be removed prior to the commencement of a hover exit; or shall be of a type, which can be safely opened and closed in flight in accordance with manufacturers' specifications.

2.7 Maximum Hover Distance

Low hover exits refer to skid heights of 3 feet (.91m) or less. High hover exits refer to skid heights of .91 to 1.5 m. Skid height shall not exceed 5 feet (1.5m) above the deplaning surface. This ensures that personnel can alight directly from the aircraft to the surface; allowing personnel to transfer their weight from the helicopter to the surface smoothly and gradually.

2.8 Weight Transfer During Flight

Crew members shall deplane one at a time in a previously designated order and by the deliberate and smoothest transfer of weight as possible. The sudden and abrupt shifting of any weight on the helicopter may drastically affect the pilot's ability to maintain a stabilized hover. The transfer of weight to the ground from the helicopter shall be done in a gradual and deliberate manner.

2.9 Power Requirements

The helicopter shall be operated in accordance with the approved Aircraft Manufacturer's Flight Manual. Out-of-ground effect limits shall be observed as appropriate.

2.10 Weight and Balance Calculations

To ensure that the helicopter's center-of-gravity limits are not exceeded at any time during the hover exit operation, the pilot-in-command shall complete the appropriate C of G calculations based on the load and the most extreme case in the hover exit/enter maneuver. The pilot shall determine the sequence of offloading passengers and cargo to remain within center-of-gravity limits throughout the maneuver.

Calculations shall be based on actual crew member and cargo weights when available; otherwise standard weights shall apply.

Non-standard helicopter configurations (such as cargo baskets) require extra care in determining weight and balance limits.

Although hover exits may take place from either side of the helicopter, it is important to be aware of the implications of exiting out one side or the other on the lateral C of G. This is particularly significant with certain helicopter types (ie. Bell 206, 206L). Consideration must also be given to "translating tendency". This is determined by the direction in which the helicopter main rotor turns. When viewed from above, the main rotor on most North American manufactured helicopters (ie Bell) turns counter clock-wise. Because of this, the aircraft "hangs" with the left skid lower in a hover. European helicopters (ie AStar), typically with clock-wise rotating rotor blades, will hang with the right skid lower. Hover exits are typically performed on the "high" side of the aircraft to avoid exacerbating the already exaggerated C of G.

2.11 Authority

The Pilot-in Command shall have sole responsibility for deciding if a hover exit can safely be conducted; and shall abort any attempts to hover exit if not safe to do so.

The safety of the operation shall be the responsibility of all staff involved under the Pilot-in-Command's final authority.

2.12 Personnel Clothing and Protective Gear

All clothing shall have all closures securely fitted to avoid getting hung-up on parts of the helicopter. Work boots shall be worn providing ankle support and protection and sufficient traction. Personnel shall wear a hard hat complete with a functional chin strap and hearing protection. Ear muff style hearing protection may be worn in lieu of a chin strap. The muffs are suffice for securing a hard hat. Hearing and eye protection shall be worn. "Caution items" such as (but not limited to) rings, necklaces, watches, hoods etc. shall be either tucked inside the clothing or removed prior to the hover exit. Long hair shall be securely tied and tucked inside the clothing. Gloves should not be worn during the actual hover exit or entry. There is a risk that the gloves may become snagged on the ground-handling attachments and/or skid plates on the landing gear.

2.13 Cargo

Helicopter type and cargo space or operational expediency may dictate whether fire suppression gear be stowed in the cabin area. Backpacks, tools, and other equipment must be properly packaged, protected, and secured. Cargo shall be restrained so as to prevent shifting during flight and shall be placed so as not to block or restrict the exit of passengers in an emergency. Cargo or equipment shall not be loaded or unloaded from a baggage compartment remote from the main cabin unless the applicable center of gravity calculation is completed. The Pilot-in-Command shall instruct cargo handlers as to the appropriate storage and securing procedures. If tag lines are used, they shall not exceed 4 feet (1.2m) in length. The tag lines shall be stored properly when not in use.

3.1 Qualifications

3.2 Pilot Qualifications

The helicopter pilot shall be on the agency's approved operator list. The pilot shall meet the agency's minimum pilot requirements for the helicopter type being operated.

The pilot shall have received initial and recurrent training for hover exits as outlined in their company's Air Carriers Operations Manual. The pilot shall be prepared to demonstrate his/her ability to carry out personnel and equipment

moves to the satisfaction of the participating CIFFC member agency if and when requested.

3.3 Crew Qualifications

Fire crew members shall be:

- physically fit and capable of exiting /boarding safely from a helicopter in a hover.
- able to understand verbal and hand signal instructions.
- willing to exit from a helicopter in a hover.
- trained in basic helicopter orientation and safety and have successfully completed a training program in exiting/boarding a hover.

4.1 Training and Currency

4.2 Pilot Training and Certification

Pilots shall review this document prior to participating in training sessions with agency staff. Pilot training shall conform to their company's Air Operations Manual amendment.

4.3 Personnel Training

New staff (Initial certification):

- Three (3) live hover exits and two (2) live hover loadings.

Returnees (Re-Certification):

- Must review the hover exit materials annually
- One (1) live hover exit and one (1) live hover loading annually.

4.4 Crew Leader Designation

The crew leader shall be responsible for the conduct and movement of the agency personnel. A leader must be designated for each operation and shall be positioned in the appropriate seat during the hover exit providing direction to the crew and pilot.

4.5 Certification Identification

Trained crew members shall be issued a hard hat decal annually made from non-destructive sticker material. The decal is a visible indication that the trainee has successfully completed annual hover exit training, and has demonstrated competence at performing hover exit operations. See Appendix 2.

5.1 Procedures

5.2 Briefing

A briefing shall be held with the crew and pilot any time there is a change of (a) pilot, (b) crew or crew member, (c) helicopter or helicopter configuration, or, (d) prior to the operational hover exit to review and solidify the plan. This briefing should include but is not limited to:

- Sequence of crew to hover exit
- Performing a mock-up hover exit to ensure that the helicopter load configuration allows for all or portion of crew to hover exit
- Agree upon which type of exit (high/low/toe-in)
- Review of standard signals
- Any transfers of personal gear and cargo
- Emergency procedures – including where the pilot would likely turn/move the helicopter in the event of an emergency

5.3 Reconnaissance of Potential Exiting Sites

The pilot in command has full responsibility for the safe operation of the helicopter and its' occupants during flight.

The pilot shall be solely responsible for deciding if a hover exit can be safely executed and carried out within the limitations of the acceptable operating procedures outlined in the Air Carrier's Company Operations Manual. Notwithstanding, all personnel onboard a helicopter have the authority to say "NO" to a particular situation or procedure they are not personally comfortable with. (see section 1.4)

The crew leader shall assess the fire potential and determine the merits of conducting a hover exit if an acceptable full skid landing site is not in the immediate vicinity of the fire.

The crew leader and pilot shall assess the potential landing areas and hover exit locations and shall consider:

- Opportunities to deplane one or more firefighters with a chainsaw to improve the landing area to allow for a full skid landing
- The distance and time delay involved if deplaning from the nearest full skid landing location
- An estimate of time saved by a hover exit and the effect that earlier suppression activity will have on the fire
- Degree of difficulty

The pilot shall evaluate suitable areas near the fire that will accommodate a hover exit and shall advise the crew leader. They must agree on the location and procedure prior to conducting a hover exit.

The pilot and crew leader shall identify the area to be used for the main helispot and any possible alternate locations.

The pilot shall advise the crew leader of the improvements required at the main helispot area to make it suitable for a full skid landing.

The escape route(s) to be used by the ground crews will be identified by the crew leader and acknowledged by the pilot.

5.4 Exit Preparation

Exiting on the outside of the helicopter skids in a hover is the preferred method of deplaning; however, if outside of the skid is not the safest method of exiting, then inside of the skid is acceptable.

The pilot shall brief the crew and advise the crew leader if there are any special weight requirements or considerations that are necessary to maintain acceptable C of G limits.

If a door has to be removed, the pilot shall locate the nearest acceptable full skid landing area and proceed to remove the required door. Open door flights shall be as short as possible: those doors necessary shall be removed.

The crew leader shall brief the crew of the exit sequence and advise the crew of the type of exit to be completed. Once the crew leader has briefed the crew and is satisfied that all crew and equipment is ready, the crew leader shall advise the pilot by intercom.

The crew leader shall notify the appropriate Flight Watch facility of their specific location and indicate that a hover exit is commencing. The pilot shall re-establish communications with the flight watch facility as soon as practical once the hover exit is complete.

5.5 Positioning Helicopter for Hover Exit

The helicopter shall be maneuvered into a stable hover with a skid height not to exceed 5 feet (1.5m) above the deplaning surface for a high hover exit or no more than 3 feet (.91 m) above the surface for a low hover exit.

The crew leader (if requested by the pilot) may provide rotor clearance and height information to help precisely position the helicopter.

The pilot shall advise the crew leader when the helicopter is in a stable hover and confirm that exit procedures can commence. If changing conditions dictate, or a stable hover cannot be maintained, the exit shall be aborted immediately.

The crew leader shall initiate the commencement of exit procedures with crew members.

5.6 Exiting from a Hover

Hover exits may take place from either side of the helicopter.

The following hover exit sequence is for the Bell 206 helicopter: exiting out the left side of the helicopter, although steps a) through h) are common to all hover exits.

Note: The sequence to exit from the right hand side for the hands and feet placement will be reversed.

Hover exits of up to 5 feet (1.5m) shall occur outside the skid unless an inside the skid exit is a safer method. Hover exits at level heights of 3 feet (1m) or less shall always occur outside the skid.

- a) Crew leader acknowledges helicopter is stable and pilot confirms, “ready for exit”.
- b) Crew leader shall point to the first crew member and nod in the affirmative.
- c) The crew member shall undo their seat belt and re-secure it behind him/her. The crew member shall remove headset and don hearing protection if not done already.
- d) Crew leader shall advise pilot that, “Number one exiting now”. The amount of movement information required to be given to the pilot will vary between pilots and helicopter type. The crew leader and the pilot shall discuss the specific requirements prior to commencing the hover exit procedure as part of the briefing.
- e) The exiting crew member shall grip the co-pilot’s seat back or door post with the left hand and transfer his/her weight forward on the left foot grasping a suitable handhold with the right hand (not seat cushion).
- f) The crew member shall pivot on the left foot to face the inside of the helicopter and extend the right leg over the doorsill until the right foot is secure on the skid or step.
- g) The left hand shall then be transferred to grip the door step.
- h) The left foot shall then be moved to the skid.

5.5.1 High Hover Exit Method

Note: The sequence to exit from the right hand side for the hands and feet placement will be reversed.

- a) The crew member shall then semi crouch on the skid keeping body weight as close to the doorsill as is comfortable.

- b) The crew member's right hand shall now be transferred to grasp the doorsill. The left hand shall grip the front cross tube as close to the doorsill as is comfortable and move to a kneeling position.
- c) Using the doorsill and/or skid cross tube as hand holds – the crew member shall gradually and smoothly lower their body outside the skid and extend their legs to make ground contact and place partial weight to confirm solid footing. The crew member shall then smoothly transfer weight to both feet and release handholds.
- d) The crew member shall exit to left side of skids and crouch either inside or outside the rotor disc as circumstances and terrain allow but not directly under the tips of the blades.
- e) The crew member shall make eye contact with the crew leader and shall indicate all is well with a nod of the head or thumbs up signal.
- f) Once the first crew member is safely on the ground the crew leader then advises the pilot "number one is clear".
- g) The crew leader signals the second crew member to unfasten his/her seatbelt and to move to the exit seat. Crew members exit in sequence.
- h) If gear and/or equipment is to be offloaded it shall be done at this time.
- Once the interior offloading crew member is in the exit seat, the seat belt must be re-fastened prior to commencing the cargo off load.
 - The crew leader advises the pilot that the offload procedure is beginning now and signals the crew member to begin the procedure.
 - The cargo is handed or lowered (with the aid of tag lines) to the crew member on the ground.

On completion of the offload, the crew leader advises the pilot and the crew member prepares to exit the helicopter.

- i) The crew leader shall advise the pilot "number two beginning to exit now" and signals the second crew member to begin his procedure.
- j) The crew member exits using the procedure as outlined above.
- k) Once the second crew member is clear of the helicopter, the crew leader advises the pilot that "number two is clear".
- l) The crew leader then advises the pilot of his intentions to exit, gives any final rotor clearance, secures cabin, his/her seatbelt and headset.
- m) The crew leader then exits onto the skid and moves to the normal crew exit

position, during crew leader exit, one crew member should move into the pilot's line of sight to provide positioning information.

n) Once on the ground the crew leader shall make eye contact with the pilot and give the "thumbs up" signal.

5.5.2 Low Hover Exit Method

The movements are the same as the high hover for most of the procedure except for procedures as follows.

a) Using the skid cross tube and door sill or skid as hand holds – the crew member shall extend either leg to make ground contact and place partial weight to confirm solid footing. The crew member shall then smoothly transfer weight to both feet and release handholds.

5.5.3 Partial Skid / Toe in Method

Single skid toe-ins are prohibited.

The initial movements are identical a) to h) with careful attention paid to tail and main rotor clearance.

- The crew member shall step backwards or slightly sideways to make ground contact and place partial weight to confirm solid footing
- The crew member shall smoothly transfer weight off the skid ensuring solid footing before releasing handhold

The crew must remain crouched near the helicopter after deplaning, and within the normal view of the pilot at all times.

5.6 Cargo Offloading

Initial Attack Load configurations of helicopters shall take into consideration the possibility of full crew and gear hover exits. Different helicopter types and different load/crew configurations can substantially change the offloading procedure for hover exit. The pilot shall determine the unloading sequence to ensure the helicopter's center of gravity limits are maintained: particularly when baggage and tail boom areas contain equipment that may or may not be accessible during the hover exit.

- The crew leader shall ensure he/she has been fully briefed by the pilot on the cargo unload sequence.
- The crew leader is responsible to ensure the crew is fully briefed on the sequence.
- The crew leader shall keep the pilot informed how offloading is

- progressing.
- If equipment is inaccessible (tail boom or baggage compartment), the pilot must be informed and the unload sequence shall be adjusted.
 - Inaccessible equipment shall necessitate a shuttle with the helicopter locating a full skid landing area and transferring the equipment from the baggage area to the main cabin.
 - Equipment shall be unloaded from the cabin in layers to maintain a balanced load from side to side (lateral c of g).
 - Crew members outside the helicopter shall stand outside the skids (never straddle the skid) and form a single line to accept offloaded equipment from the main cabin.
 - Crew members shall ensure that light items are weighted down to prevent downwash from blowing them around and up into the rotor system
 - If taglines are required, they are to be no more than 4 feet (1.2m) in length to prevent entanglement.
 - Crew members shall ensure a smooth transition of weight from the helicopter to the receiving ground member.
 - Hand signals for off-loading the gear shall be the same as the hand signals given to crew members when conducting a hover exit.

5.7 Additional Helicopter Type Considerations

During training, the pilot briefing shall include procedures specific to the model of helicopter being used. Some critical points associated with the common series of helicopters are presented in sections 5.7.1 through 5.7.3.

Many helicopters of the same type are configured differently with their own specific procedures to deal with optional equipment and hazards. The pilot shall brief the crew on the hover exit procedures and anomalies specific to the individual aircraft used for hover exiting.

When confronted with an unfamiliar helicopter type or a familiar type in a non-standard configuration, crews must, at a minimum, receive a briefing and perform a mock up hover exit. Additional mock-ups or practice live hover exits may be required to ensure the comfort level of both the pilot and crew.

5.7.1 Bell 206 Long Ranger Series

Hover exit procedures from the Bell 206 Long Ranger series parallels that of the Bell 206 Jet Ranger as described in section 5.4. Additional details for this helicopter are:

- Safety securing of the small double fold door after the large door has been removed.
- Extra care must be taken when unloading gear from the rear baggage compartment to stay within C of G limits.
- Secured gear may be carried in cabin area. No unsecured gear to be carried in the hat rack.

- Forward skid cross tube may be used as a hand hold during exit.

5.7.2 Aerospatiale AS 350/355 AStar Ecureuil Series

The standard exit procedures as outlined in section 5.4 apply to this series of helicopter. There are obvious cabin, door and skid differences. The following are particular to this series of helicopter.

- The cabin is unobstructed with full crew and pilot contained in the same cabin area.
- Seat cushions attached to the seats in the rear cabin with hook and loop (Velcro) may be required to be removed so they do not fly out of the cabin during open door flight.
- The co-pilot seat may or may not be reversible. If it is, this will allow the crew leader to face the crew and direct the activity.
- The skid configuration dictates that the exit shall be outside the skid
- The front skid cross tube is behind the exit to skid point.
- The large forward main door is not normally removed. This door can be opened in a hover and is steadied by the pneumatic strut, (some helicopters may have a rearward sliding door which in itself poses no particular problems other than securing a different handhold).
- The small rear quarter door (if existing) remains closed and affords a hand hold for exit.
- Crew leader to inspect the upper and lower small quarter door latches for positive locking before beginning exits.
- Baggage space aft of the left cabin area may restrict the size of gear that can be carried; often used for chainsaws and small fuel containers. Some helicopter models have extended wide baggage compartments. No fluids are permitted in the aft baggage area of the tail boom due to an electrical panel under the floor.

5.7.3 Medium Bell Series

Standard exit procedures in section 5.4 apply with modifications to handhold control and some cabin movement.

- Gripping the small port side door with the left hand instead of the co-pilots seat or door post.
- Crew members to position themselves to grip the cross tube and skid rather than the cross tube and door sill.

Exiting crew members must be prepared for heavy rotor downwash. The small forward cabin door on the 205, 212 shall be secured to allow for handhold in the exit. Cargo off-loading shall take place according to the general rules outlined in section 5.5.

5.8 Helicopter Boarding in a Hover

The reloading of personnel and equipment into a hovering helicopter is

considered to be an exception rather than a standard practice. All reasonable efforts should be undertaken to prepare a suitable landing area. However, there is a requirement to train fire staff for this maneuver for fireline emergencies as well as for swamp and muskeg pickups.

Hover loading of personnel and equipment may be authorized providing:

- The helicopter is in a low stabilized hover – may be a full skid landing on muskeg or swamp.
- Personnel have been trained in the procedure.
- The pilot and crew leader agree on the sequence of events.
- The site is acceptable to the pilot.
- The equipment is packaged in an acceptable manner and capable of hand to hand transfer if it is to occupy cabin space.
- The helicopter must be capable of exiting the pick-up area with an out of ground effect power reserve with the anticipated load.

The pick-up site shall be prepared to provide rotor clearances for the helicopter and sure footing for the personnel.

Personnel and pre-packaged equipment shall be assembled before the helicopter arrives and equipment is to be secured.

Reloading sequences are essentially the reverse order of exit. Emphasis shall be on the smooth initial transfer of weight onto the skid. Smooth crew movement control is vital as the weight of the helicopter increases. The first person in the helicopter shall establish pilot/air crew contact as soon as possible after boarding and shall control the reloading of crew by the use of hand signals.

5.9 Common Signals

In order to have easy and specific communication amongst the crew involved in the hover exit (including the pilot), specific hand signals have been developed so that there is no misinterpretation of information and direction

- Abort – Slash across the throat
- Undo the seatbelt – Single decisive chopping motion of the forearm and pointing at the individual's seatbelt

- Move to the exit seat – single decisive chopping motion of the forearm pointing to the exit seat
- Proceed with the exit outside the cabin and continue to ground – abrupt sweeping motion to the door
- Hold/Stop – Hand thrust out towards the individual with the palm of the hand facing the individual
- Acceptance or Agreement - Hand held with thumb pointed up.

When loading in a hover, hand signals are given in reverse order of when conducting a hover exit.

See Appendix 3 Hand Signals.

6.1 Terminating Hover Exits

6.2 Initial Warning

If, for any reason there is a need to terminate the maneuver immediately, the command issued by the pilot or crew leader shall be “**abort-abort-abort**”.

6.3 Crew Leader Procedure

- The crew leader shall acknowledge the “abort” signal saying “aborting” to the pilot.
- The crew leader shall signal crew to “Stay and Secure” by thrusting their hand forward to the crew in a stop gesture and perform the slashing motion across the throat the pilot shall activate the siren if equipped.
- The crew shall immediately secure seat belts and be prepared to assume the crash position as briefed by the pilot.
- If there is a crew member in the exit sequence it is the crew leader’s decision as to the course of action that is to be taken. It is to be noted that once a crew members is in the suspension phase, it is time consuming and physically difficult to re-board the helicopter: as well the attention of the exiting crew member will be difficult to get as they have lost eye contact.
- It is important that the pilot and crew leader inform each other of their intentions and actions.

6.4 Helicopter Emergencies

During hover exit training the pilot shall review Land Immediately Emergencies in general and those specific to the helicopter type with the crew.

Prior to the operational hover exit the pilot will review emergency procedures with the crew as part of the standard briefing identified in section 5.1.

When there is an aircraft emergency that requires immediate action by the pilot, the pilot shall fly the aircraft, take action to address the emergency and then advise the crew of the intended action

There are three types of helicopter emergencies

- Land Immediately: emergencies include engine, lubrication, drive train, tail rotor, hydraulic and control failures among others.
- Land as Soon as Possible: emergencies require that the helicopter relocates and lands at a safe level landing spot as soon as possible. These include but are not limited to low fluids, hydraulics, clogged filters, chip lights.
- Land as Soon as Practical: emergencies will terminate hover exits but can be done in a controlled fashion.

Only Land Immediately and Land as Soon as Possible emergencies should have an instant effect on hover exit operations resulting in immediately terminating the procedure.

Appendix 1 Agency Specific Matrix

Agency	High Hover Exit	Low Hover Exit	Emplane (Load) Personnel and Equipment	Emplane (Load) Personnel Only	Weight Limit
BC	X	X		X	200 lbs.
YT	X	X	X		200 lbs.
AB	X	X	X		Nil
NT		X			Nil
SK	X	X	X		Nil
MB		X	X		Nil
ON		X	X		Nil
QC		X		X	Nil
NS	X	X		X	Nil
NB		X		X	Nil
NL		X	X		Nil
PE		X			Nil
PC*	X	X	X		Nil

*Parks Canada

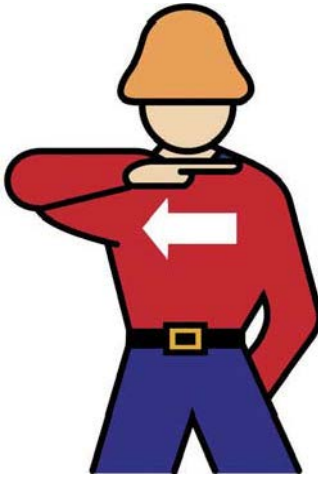
Appendix 2 Hover Exit Decal



Example of Hover Exit Decal as worn by certified personnel distributed to Canadian wildland fire agencies by the Canadian Interagency Forest Fire Centre (CIFFC).

NOTE: Background color changed every year. Current year indicated under the CIFFC logo.

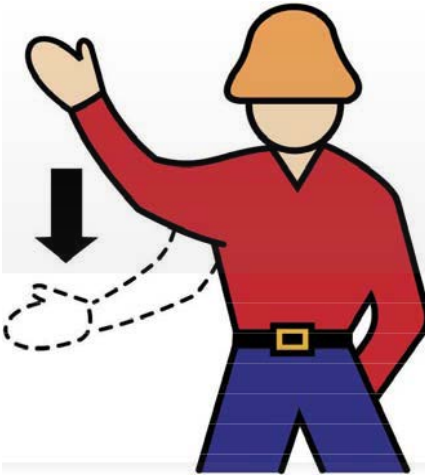
Appendix 3 Hand Signals



Abort - slashing motion across throat



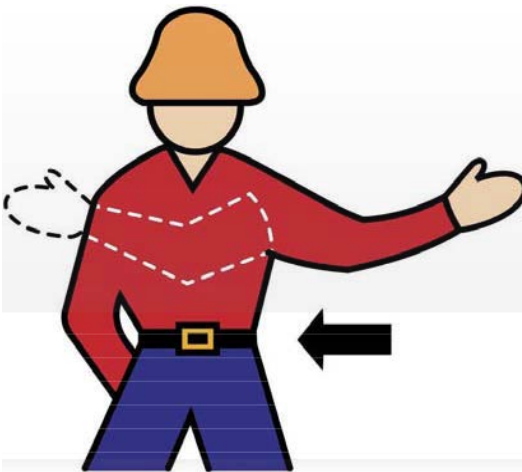
Stop/Hold - hand thrust out with palm forward



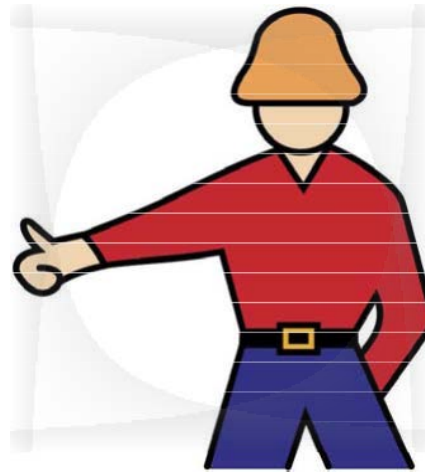
Undo Seatbelt - single decisive chopping Motion of the forearm followed immediately by pointing to the individual's seatbelt



Move to the Exit Seat - undo seatbelt signal accompanied by pointing to the exit seat



Proceed With Exit Outside the Cabin - abrupt sweeping motion towards the door



Agreement or affirmative - thumb or thumbs up