

Introduction

Due to difficulties in accessing remote areas, the use of helicopters is on the rise.



Critical Task Inventory

- Landing Zone Preparation
- Approaching the Helicopter
- Bear Spray Transport
- Loading Gear
- Getting Inside and In-flight
- Exiting and Unloading
- In-Flight Emergency Response
- Fogged In and Walking Out

PPE Requirements Summary

Image	Description	Standard
	Hearing Protection	Recommended

Safety Equipment Summary

Image	Description	Standard
	Hand Held Radio	Required When Dropped at a Block by Helicopter
	Bear Spray	MUST be in the Cargo Compartment if Present

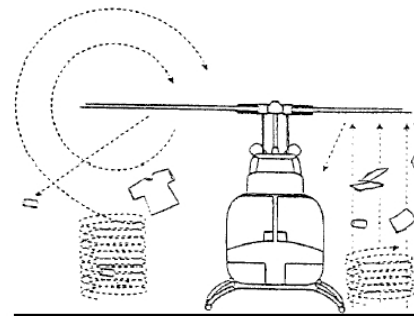
Landing Zone Preparation

The helicopter needs to land in a properly prepared site. If the pilot detects a problem, he will abort the landing.

Hazard Assessment	F	S	P	R
Debris in Rotor (S)	2	3	2	7
Forest/Grass Fire (S)	2	3	2	7
Debris in Engine Intake (S)	2	3	2	7

Secure the Landing Zone

Clear and secure all debris that could be picked up by the rotor wash (wind). This includes garbage, cardboard boxes, tarps, hats, and anything else that could be picked up.



Debris in Rotor If large debris hit the rotor, like tarps or cardboard boxes, it will cause an emergency landing or a crash.

Debris in Intake Helicopter engines draw huge amounts of air into the turbine. Small debris, like plastic wrappers, can get sucked into the intake and cause an immediate emergency landing or uncontrolled decent.

Put Out Cigarettes

Extinguish all cigarettes before the helicopter approaches.

Waiting for the Helicopter

Collect your gear with the other personnel just outside of the landing zone. The helicopter will normally approach into the wind so your best spot to wait is downwind of the landing zone.

Dogs (Pets)

Keep dogs secured whenever helicopters are landing in the area. Dogs have been known to jump into the high speed tail rotor – perhaps due to the high pitch whine.

Frequency of Exposure (F)	Severity of Loss (S)	Probability of Loss (P)	F + S + P = Risk Rating (R)
1 = Up to Weekly 2 = Up to Daily 3 = 1+ Times / Day	1=Class C – Minor, non-disabling, non-disruptive 2=Class B – Serious injury or disruptive loss 3=Class A – Major injury, permanent disability or loss	1=Limited chance adverse event will occur 2=Adverse event likely to occur 3=Adverse event likely to occur soon	7 to 9 = High Risk 5 to 6 = Medium Risk 3 to 4 = Low Risk
Type Of Hazard: H= Health (acute or chronic) S= Safety (people and equipment) Q= Quality P = Production E= Environment			

Approaching the Helicopter

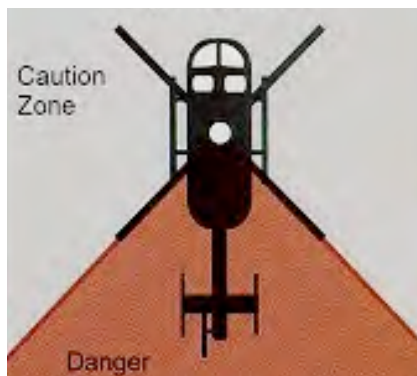
Your first few rides in a helicopter are often pretty exciting. Don't let this excitement affect your safety.



Hazard Assessment	F	S	P	R
Hit by Rotor (S)	2	3	2	7
Walk into Tail Rotor (S)	2	3	2	7

Precautionary Measures

- Sometimes the helicopter will touch down and then lift again to obtain a better footing. Wait for the pilot's signal before approaching the helicopter.
- Walk crouched and carry any equipment low and parallel to the ground.
- Never go past the cargo doors – the tail rotor will be dangerously close to you.
- Never pass under the tail boom to get to the other side – always walk around the front.



Bear Spray Transport

Hazard Assessment	F	S	P	R
Bear Spray Discharge (S)	2	3	2	7

Precautionary Measures

Any container carrying bear spray must be in the cargo bay. An accidental discharge would very likely cause a crash.



Loading Gear

Most personal gear should be stored in the cargo bay. An organized team can quickly and safely load a helicopter – which is important because many helicopters cost \$1200+ per hour to operate.

Hazard Assessment	F	S	P	R
Gear Hitting Rotor (S)	2	3	2	7
Bear Spray Discharge (S)	2	3	2	7
Damage to Helicopter (S)	2	3	2	7

First People Loaded

One person should hold the cargo door open while a second person loads the cargo. Others present should get in their seats and buckle up.



Last People Loaded

The last person to use the cargo compartment is to ensure that no equipment is hanging out and the cargo door is secured shut.

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Getting Inside and In flight

Hazard Assessment	F	S	P	R
Damage to Doors (S)	2	2	2	6
Personal Injury Due to Lack of Seatbelt in Crash (S)	1	3	3	7
Debris in Intake (S)	1	3	2	6

Precautionary Measures

- Doors should be closed gently unless you are instructed that they “slam doors”.
- Every person must be in their own seat and with their seatbelt fastened.
- If headsets are provided, you are encouraged to wear them.
- Communicate with the pilot only through the headsets and not during take-off or landing.
- Do not smoke or throw anything outside of the helicopter.
- Do not remove your seatbelt until the helicopter has fully landed and the pilot has given you a signal that the landing is complete.



Exiting and Unloading

Hazard Assessment	F	S	P	R
Hit by Rotor (S)	2	3	2	7
Walk into Tail Rotor (S)	2	3	3	7
Cargo Door Damage (S)	2	1	2	5

Precautionary Measures

- Make sure the passenger doors are properly closed and that seatbelts are not hanging out – the metal end will badly damage the helicopter in flight.
- Help unload the gear – remember to keep everything low to the ground.
- Group and crouch next to the helicopter or move towards the front of the helicopter.

Fogged In and Walking Out

Hazard Assessment	F	S	P	R
Lost Person (S)	2	3	2	7
Lack of Communication (S)	2	3	2	7

Precautionary Measures

- If the helicopter is unable to bring employees out of the block, all workers must be accounted for through prior to walking out of the block.
- Walking out of the block should only be attempted if the distance is not too large and the route is easy to follow.
- Before walking out of a block, radio contact must be made with the supervisor or other member of the supervisory staff to inform of attempt to walk out of the block and to give an estimated time of arrival.
- A handheld radio should go with crew as they walk out in case of emergency.
- All crew members should stick together when walking out, following the direction of their crew leader or other designated route finder.



Don't take waling out lightly. Plan it out carefully as a group and take every precaution.

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In-Flight Emergency Response

- Ensure your seatbelt is fastened and snug.
- Remove your glasses.
- Secure any loose gear.
- Locate the nearest exit and mentally review all operating procedures.
- Assume the crash position: chest resting on your legs and arms wrapped around your legs.
- When the helicopter comes to a complete stop, exit quickly and assist others.
- Move to a minimum of 100 meters from the helicopter.
- Activate the emergency locator transmitter (ELT). If it is still in the helicopter, only approach the helicopter if there is no sign of fire or smoke.
- It is recommended that you keep a hand held radio or satellite phone with you.



Emergency Locator Transmitter

All helicopters in Canada have an Emergency Locator Transmitter (ELT), which is activated upon a high impact crash, emitting a homing beacon for rescuers. The pilot or passenger may also activate the ELT manually, and the pilot will inform you of its whereabouts during the pre-work.

Distress Signals

Ground to Air signals include:

- Bright coloured materials or clothing.
- Flares.
- Reflective materials.
- Smoke fire.
- Triangle signal (with fires at each apex if available).

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Helicopter Transport Safety

Hazard Assessment and Training Briefing

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 December 21, 2007

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