Due to difficulties in accessing remote areas, the use of helicopters is on the rise. Understanding helicopter safety will help to keep people, our equipment and the environment safe.

**PPE Requirements Summary**

<table>
<thead>
<tr>
<th>Image</th>
<th>Description</th>
<th>Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Hearing Protection" /></td>
<td>Hearing Protection</td>
<td>Required</td>
</tr>
</tbody>
</table>

**Landing Zone Management**

Do not underestimate the force exerted by the rotor wash. If the helicopter will be landing near you, make sure you secure everything.

**Hazard Assessment**

<table>
<thead>
<tr>
<th>Task Steps and Hazards</th>
<th>F</th>
<th>S</th>
<th>P</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landing Zone Management</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>• Struck by Debris (S)</td>
<td>2</td>
<td>2</td>
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<td>6</td>
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<tr>
<td>• Eye Injury (S)</td>
<td>2</td>
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<tr>
<td>• Fire (S)</td>
<td>2</td>
<td>2</td>
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</tr>
<tr>
<td>• Slip / Trip / Fall (S)</td>
<td>2</td>
<td>2</td>
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<td>6</td>
</tr>
<tr>
<td>• Exposure to Dust (S)</td>
<td>2</td>
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</tr>
</tbody>
</table>

**Controls**

Before the helicopter approaches, be certain that the area is free from debris that can be blown away or up into the air by the approaching helicopter.

- Always attempt to remove all slip, trip and/or fall hazards and if unable to remove them, you should identify them to all people who may encounter them.
- Extinguish all cigarettes.
- If dusty conditions are present, use a cloth or spare clothing to cover your nose and mouth.
- Never wait for the helicopter in the landing zone.

**Personal Gear Management**

Ensuring your personal gear is secure and that you are not transporting dangerous goods will make for a safe and enjoyable ride.

**Hazard Assessment**

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<tr>
<td>Personal Gear Management</td>
<td></td>
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</tr>
<tr>
<td>• Crash Caused by Accidental Discharge of Bear Spray (S)</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>• Eye Irritation (H)</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>• Respiratory Irritation (H)</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>• Contact with Rotors (S)</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>• Struck by Loose Items (S)</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>

**Controls**

- Bear mace must NEVER be transported in the passenger area. In the event of accidental discharge, the helicopter WILL crash.
- Always carry equipment level and at waist level, never upright or over the shoulder.
- Personal gear should be stored in the cargo compartment.
- Make sure all of the gear is contained behind the door. A strap with a buckle hanging out could cause considerable damage while in-flight.
- The last person to use the cargo compartment is to ensure that no equipment is hanging out and the cargo door is secured shut.

**Approaching and Leaving the Helicopter**

Approaching or leaving the helicopter requires you to be very alert and cautious. If you are not, you may get flying debris in your eyes, inhale a lot of dust or, worse, you risk decapitation from the rotors.

**Hazard Assessment**

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<tr>
<td>• Eye Injury (S)</td>
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<td>2</td>
<td>6</td>
</tr>
<tr>
<td>• Struck by Rotor (S)</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>7</td>
</tr>
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</table>

**Controls**

**Shield Your Eyes**

Always shield your eyes when approaching the helicopter, especially if you wear contact lenses.

**Dust Inhalation**

If the area is dusty, cover your nose and mouth with a cloth or other article of clothing.

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**Type Of Hazard:**

- **F** = Frequency of Exposure
- **S** = Severity of Loss
- **P** = Probability of Loss
- **R** = Risk Rating

**Legend:**

- 1=Task performed up to 3 x / yr
- 2=Task performed up to 3 x / mo
- 3=Task performed 1+ x / wk
- 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

**Risk Rating:**

- 1 to 4 = Low Risk
- 5 to 9 = Medium Risk
- 7 to 9 = High Risk
Wait for a Complete Landing
Sometimes the helicopter will touch down and then lift again to obtain a better footing. Wait for the helicopter pilot's signal before approaching the helicopter.

Angle of Approach
Always approach a helicopter from the front or the front-half of the side. The pilot must be able to see you at all times.

Loading a Helicopter on a Slope
Always remember the main rotor is spinning even though you may not be able to see it all that clearly. Loading and unloading a helicopter on a slope presents a unique risk. Choose your path carefully. If you walk uphill, you could walk right into the blades. Unload downhill when on a slope.

Walk Like You Want to Keep Your Head
- The main rotor of the helicopter can dip down several feet. Walk in a crouched manner.
- Never pass beneath the tail boom of the helicopter.
- Never walk past the baggage compartment (to the rear), as the tail rotor is nearly invisible at operating speed.

Dogs and Helicopters
Ensure that any dogs in the area are controlled. The high frequency sound emitted by the rotors may attract them. Dogs have a nasty habit of jumping into the tail rotor.

Riding in a Helicopter
All helicopter passengers are responsible for their safety and the safety of others while on the ground and in the air. Follow all rules and regulations for flight.

Hazard Assessment

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<tr>
<td>Bodily Injury (S)</td>
<td>2</td>
<td>2</td>
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</tr>
<tr>
<td>Loss of Communication with Pilot (S)</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Exposure to Noise (S)</td>
<td>2</td>
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</table>

Controls
- All helicopter passengers must fasten their seat belts before the helicopter takes off. Seatbelts are not to be removed until the helicopter has completely landed and the pilot has signaled it is safe to exit the helicopter.
- Never smoke in a helicopter or near a landed helicopter.

Riding in a Helicopter
Controls (continued)
- Communication with the helicopter pilot should be done only through the use of provided headsets.
- Never throw anything (i.e. garbage) out of the helicopter.
- If you are unaware of where the emergency gear is stored, notify the pilot so that you can be shown before take-off.
- Ask the pilot for a pre-flight briefing.
- Before exiting the helicopter, ensure that you know where you are.
- Hearing protection is recommended.

Emergency Response Plans

In-Flight Emergency
- 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).

<table>
<thead>
<tr>
<th>Frequency of Exposure (F)</th>
<th>Severity of Loss (S)</th>
<th>Probability of Loss (P)</th>
<th>F + S + P = Risk Rating (R)</th>
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<tr>
<td>1=Task performed up to 3 x / yr</td>
<td>1=Class C – Minor, non-disabling, non-disruptive</td>
<td>1=Limited chance adverse event will occur</td>
<td>7 to 9 = High Risk</td>
</tr>
<tr>
<td>2=Task performed up to 3 x / mo</td>
<td>2=Class B – Serious injury or disruptive loss</td>
<td>2=Adverse event likely to occur</td>
<td>5 to 6 = Medium Risk</td>
</tr>
<tr>
<td>3=Task performed 1 x / wk</td>
<td>3=Class A – Major injury, permanent disability or loss</td>
<td>3=Adverse event likely to occur soon</td>
<td>1 to 4 = Low Risk</td>
</tr>
</tbody>
</table>

**Type Of Hazard:**
- H = Health (acute or chronic)
- S = Safety (people and equipment)
- Q = Quality
- P = Production
- E = Environment