

Resource document:

Winter

Cold Weather Survival

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Narrative:

The history of warfare is rife with examples of how difficult an adversary “General Winter” can be. Even as potent a fighting force as was Germany’s military in World War Two could not overcome this force of nature that froze Soldiers and equipment, dramatically reducing combat effectiveness. Some 70 years later, today’s Soldiers still face the same chilly conflict Soldiers battled in the past. However, today’s Soldiers can use risk management to as an effective tool for reducing their vulnerability to painful, even disabling, cold weather injuries.

Key Messages:

- Leaders are as responsible to protect their Soldiers from needless cold weather injuries as much as they are responsible to ensure their Soldiers are properly supported in battle. That requires leaders being aware of the **hazards by monitoring temperatures**
- Getting traction to safely maneuver and stop on wintry roads is a must. Here too, what works in summer may be less than ideal in winter. Although all-season radials are popular and work well most of the year, they may not provide optimal traction when roads are covered with snow and ice. Under such conditions, specially designed winter tires having a softer rubber compound and more aggressive tread patterns do a better job of biting into the snow. It is important to remember that when winter tires are used, they must be placed on all four wheels. When tires need to sink their “teeth” even deeper into icy roads, studded tires provide the extra grip needed to keep vehicles safely under control. However, because such tires can damage normal road surfaces, their use is typically limited to between certain dates. Rules for their use can vary by state.
- As temperatures drop, so do tire pressures. It is not unusual to get up on a particularly cold morning and get a low tire pressure indicator when you start your car. Because firmly inflated tires are important to getting maximum traction, closely monitor tire pressures throughout the winter and add air when needed.
- Winter’s chill also saps your battery’s strength. Check the age of your battery and replace it if it is more than 4 ½ years old. Also check battery cables for corrosion and clean as necessary.

Talking points:

Winter driving adds challenges that if ignored, can strand Soldiers and their families on the road in brutally cold conditions. Ensuring vehicles are properly maintained and prepared for the rigors of winter's chilly temperatures is essential to their reliable, safe operation.

Snow and ice fundamentally alter the traction between a vehicle's tires and the road. Worn tires or those not designed to provide optimal traction in snow or ice can send a vehicle out of control and into an accident.

The colder the outside air gets, the denser it becomes; effectively reducing tire pressures. As tires "soften," their treads become less effective in gaining traction on snow or ice, increasing the chances a vehicle may go out of control.

Thickened oil in the crankcase makes it harder for your engine to turn over and start. Older batteries may not have sufficient charge to handle the extra cranking it may take to start your engine. To avoid being stranded, batteries more than 4 ½ years old should be replaced before winter. Also, to ensure the electricity is effectively conveyed to the starter and that the alternator continues to charge the battery, ensure battery cables are clean and corrosion free at the terminals.

Tips:

Soldiers should check their vehicle's owner's manual for the proper viscosity oil to use in the temperatures they will encounter.

Soldiers should have their radiators flushed and then filled with the proper coolant according to their owner's manual.

Windshield washer fluids made for freezing or below freezing temperatures should be used to help clear snow, ice and slush off the windshield.

Owners should replace batteries 4 ½ years old and older to ensure sufficient cranking power. Chilly temperatures thicken the engine oil, making it harder for the starter to turn over the engine and get it to run.

Tires should be selected that can provide optimal traction for the anticipated road conditions. All-season radials, while a good compromise for many driving situations, may not be the best choice for drivers facing snow or ice-covered roads.

Historical Reference:

<https://safety.army.mil>
www.nsc.org/

www.streetdirectory.com

www.tirerack.com

Statistics:

- Between Dec. 22, 2011, and March 20, 2012 (the official 2011-2012 winter season) six Soldiers were injured in winter weather related driving accidents, according to the U.S. Army Combat Readiness/Safety Center's Risk Management Information System.

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