



Short Safety Subject

Short Safety Subjects are provided by the Public Safety Business Center, Fort Bragg, NC. Our intent is to provide safety topics for the purpose of increasing safety awareness and improving safety performance. Additional Short Safety Subjects are available on the PSBC Business Management Web Site at:

www.bragg.army.mil/psbc-bm/PubsAndForms/ShortSafetySubjects.htm

Winter Vehicle Preparation

The first important step to consider in winter driving is vehicle preparation. Without proper preparation, you may find yourself stranded and in a life-threatening situation. Use the checklist below to prepare your vehicle for the long cold winter months.

- Check radiator hoses for leaks, cracks, and ensure clamps are tight. Replace cracked or brittle hoses.
- Check antifreeze level and ensure you are protected for temperatures of at least -30 degrees Fahrenheit.
- Check headlights, tail lights, parking lights, and turn signals. Also check interior lights, such as map or dome lights. Ensure headlights are properly aligned. Adding extra weight to the trunk to increase traction may affect headlight alignment.
- Check battery to ensure proper fluid level, connections are tight, cables and cable ends are not corroded. If engine turns over slowly, have the battery checked for serviceability by a qualified mechanic.
- Check oil and filter. Use oil weight recommended for extreme temperatures.
- Check tires for adequate tread, correct inflation, and ensure that all tires are the same size and type. Do not mix radial and conventional tires. All-season radials will provide some degree of traction; however, tires with snow tread are better. Studded snow tires are best, but have limited use and should be used only when the road is packed with snow and/or ice.
- Check heater and defroster for proper working order.
- Check wiper blades for good shape; those designed for winter are recommended to help prevent wipers from icing up.
- Check windshield washers to ensure washer motor is working and nozzles are properly aligned.
- Check exhaust system for leaks. Any evidence of fumes may indicate carbon monoxide is present. Replace faulty exhaust or tighten to stop leaking.
- Check engine thermostat to ensure it is working properly.
- Check radio as it can be used to receive information on road conditions and travel advisories. If your car is not equipped with one, use a portable radio.
- TUNE UP car for winter to aid in easier starting. Extreme cold temperature will cause your car to start harder, thus wearing down your battery.
- SURVIVAL ITEMS are important. Some items you may want to include are:
 - SHOVEL, FLASHLIGHT, TOOL KIT, TRACTION MATS, TOW CHAIN OR STRAP, TIRE CHAINS, FLARES (road type), DRY SAND in sealed container, SLEEPING BAG/BLANKET, ICE SCRAPER and BRUSH, FIRST AID KIT, HIGH ENERGY FOOD/WATER, CANDLE and MATCHES.

Periodically re-check your vehicle to ensure it is properly maintained. Have qualified mechanics complete the work that may be beyond your capabilities. You may have to depend on your car for survival, so be prepared.

WINTER DRIVING SAFETY

Defensive driving under any condition means operating in a manner that will prevent not only you but other drivers and pedestrians from having an accident/collision. Winter conditions add an extra degree of difficulty requiring sharp skills, knowledge and alertness.

Following are tips for the safe, defensive winter driver:

- Plan more time to get where you are going. The time it takes to get from one place to another between summer and winter will nearly double. Not only do you need to slow down because it is slippery, other things such as visibility, snow plows, sanders, and traffic flow all have an effect. Don't allow yourself to be in a position to hurry during winter -- it doesn't pay. If driving during a military mission, questions to be answered prior to your getting on the road are: Has a risk assessment been completed? Are you trained/qualified in winter driving techniques? Your mission can be accomplished safely in the required timeframe with the proper training and instruction provided prior to the mission.
- See and be seen. Visibility is a must. Keep the windows, headlights, tail lights and turn signals clear of ice and snow. Clean your windows thoroughly so that ice and snow do not create blind spots. A film also tends to build up on the inside of your windows (particularly for smokers.) This film can distort your vision. Clean the windows inside at least once every two or three weeks.
- Falling snow has the same affect as fog; therefore, use your low beams at night. During the day, the use of high beams will help others to see you. In addition to keeping your tail lights and turn signals cleared, be sure they work.
- Traction in winter is a must. You will need to replace your summer treads with some studded snow tires, snow tires, or radial all-weather tires. Some put snow tires on all four wheels; however, be sure to put them on your drive/power wheels if used. If your car is front-wheel drive. In addition to proper tires, proper air pressure must be maintained.
- If you get stuck, your recovery technique procedure is rock the vehicle. Never spin your wheels -- you'll dig a deeper hole. Rock the car by shifting from drive and reverse while gently applying the accelerator. If you are unable to free your vehicle with this method, you will need to use the shovel and sand that you stored in your trunk for such an emergency.
- Braking and skidding require special techniques. On ice, your ability to feel the point in which your wheels will begin to lock is minimal. The best method of braking on snow and ice is the "pumping" method. You want to apply the brakes and release them. This is done quickly and repeatedly until you come to a stop. It is better to pump your brakes four, five, six times as needed than to slam on your brakes causing "wheel lock" resulting in a skid. Should you find yourself in a skid, take the following steps:
 - REAR-WHEEL DRIVE. Don't panic! You must remain calm and under control.
 - Slowly remove your foot from the gas pedal.
 - Pump the brakes with light touches.
 - Keep the car in gear (the engine compression helps to reduce speed.)
 - Turn the wheels into the skid (the direction the rear end is moving.)
 - Steer gently and if a counter skid occurs repeat the process.
 - Lastly, straighten your wheels and roll a short distance before applying accelerator.
 - FRONT-WHEEL DRIVE. Again don't panic!
 - Keep your foot on the accelerator (do not decelerate.)
 - Turn the wheels into the skid.
 - Do not touch the brakes and steer gently.

The reason we don't decelerate with front wheel drive is to keep the rear end from overtaking the front, causing a spin-out. One last note, whether your vehicle is front or rear-wheel driven and you have a standard/manual transmission, do not gear down because it causes the wheels to slide rather than roll.

Winter driving does call for an extra margin of caution, skills, and alertness. Be sure your vehicle is properly maintained and that you carry the emergency equipment for cold weather. Remember that traction is a key point, and adjust your speed and following distance to allow you to maintain full control.