



# The Safety Corner

## From the Marine Corps Center for Lessons Learned January 13, 2007



### Winter Driving

This issue of the Safety Corner highlights surviving winter driving.

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**From the Director:** The weather outside is frightful; slipping and sliding on snow and ice is not delightful. Winter is the most difficult driving season of the year, with snow, black ice, ice, slower traffic, and the occasional aggressive SUV driver who believes his vehicle handles differently on black ice than your car.

Preparing your vehicle for the winter and knowing what to do if your car skids out of control or you get stranded are the keys to safe winter driving. Changing weather conditions can make winter driving hazardous, but if you follow the rules of the road, winterize your car, and use the winter driving safety tips, you can avoid unforeseen dangers. To help you make it safely through winter, here are some tips to make sure that you and your vehicle are prepared. Make sure you and your car are ready for whatever winter may bring.

You are encouraged to pass on and post this safety corner for the widest dissemination. Log on to [www.mccll.usmc.mil](http://www.mccll.usmc.mil) to download previous editions of the Marine Corps Center for Lessons Learned Safety Corner as well as our Monthly Newsletters. I look forward to getting your comments and feedback so we can raise awareness, reduce risk and maintain a high level of readiness. Stay alert, stay in control, slow down, drive according to road and weather conditions, keep a safe distance between you and the vehicle in front of you, and be prepared with a survival kit. I welcome your comments, observations, and concerns.

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### Know Your Car



Every vehicle handles somewhat differently; this is particularly true when driving on wet, icy, or snowy roads. Take time now to learn how to best handle your vehicle under winter weather driving conditions.

- Practice cold weather driving when your area gets snow, but not on a main road. Until you've sharpened your winter weather driving skills and know how your vehicle handles in snowy conditions, it's best to practice in an empty lot in full daylight.
- Drive slowly, it's harder to control or stop your vehicle on a slick or snow covered surface. On the road, sufficiently increase your following distance so you'll have plenty of time to stop for vehicles ahead of you.
- A word of caution about braking, know what kind of brakes your vehicle has and how to use them properly. In general, if you have anti-lock brakes, apply firm pressure, if you have non anti-lock brakes, pump the brakes gently.
- If you find yourself in a skid, stay calm and ease your foot off the gas while carefully steering in the direction you want the front of your vehicle to go. This procedure, known as "steering into the skid," will bring the back end of your car in line with the front.

Good winter tires are a must; make sure your tires have adequate tread. All-weather radials are usually adequate for most winter conditions. Check with you local DMV to find out if chains or snow tires with studs are required to drive on their roads.

Look for this symbol to ensure that your tires are rated for winter driving —————>



For more information, log on to National Safety Council at [www.nsc.org](http://www.nsc.org).



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### Types of Automobile Tires

**Performance tires:** Performance tires tend to be designed for use at higher speeds. They often have a softer rubber compound for improved traction, especially on high speed cornering. Performance tires are often called summer tires, because they sacrifice wet weather handling, by having shallower water channels, and tire life from softer rubber compounds, for dry weather performance.



**Winter tires:** Designed to remain pliable in subzero temperatures. They often have fine grooves and "siping" in the tread patterns that are designed to bite into the ice and snow on the road. Winter tires are usually removed for storage in the spring, because the rubber compound becomes too soft in warm weather resulting in reduced tire life. Many winter tires are designed to be studded for additional traction on icy roads.



**All-season tires:** Most automobile tires are all season tires. These tires are an attempt to satisfy the needs of most road conditions, they have the deeper water channels that are found in winter tires, but often have a harder rubber compound for greater tire life in warm weather. All-season tires attempt to strike a balance between performance, wet weather and comfort.

**All-terrain tires:** All-terrain tires are typically used on SUVs and light trucks. These tires often have stiffer sidewalls for greater resistance against puncture when traveling off-road; the tread pattern offers wider spacing than all-season tires to evacuate mud from the tread. Within the all-terrain category, many of the tires available are designed primarily for on-road use, particularly all-terrain tires that are originally sold with the vehicle.

### Winter Weather Terms

#### Watches

**Winter Storm Watch:** Issued for the possibility of severe life-threatening winter weather conditions, including heavy snow, heavy ice and/or near blizzard conditions. Forecasters are typically 50 percent confident that severe winter weather will materialize when a watch is issued.

**Blizzard Watch:** Issued for the possibility of blizzard conditions. Forecasters are typically 50 percent confident that blizzard conditions will materialize when a blizzard watch is issued.

**Lake-Effect Snow Watch:** Issued for the potential for heavy lake-effect snow.

**Wind Chill Watch:** Issued for the potential of wind chills of -25F or less, which can cause rapid frostbite and increase the risk of hypothermia.

#### Warnings

**Winter Storm Warning:** Issued for a combination of heavy snow and/or ice, of which, at least one exceeds or meets warning criteria. Winter weather is expected to cause life-threatening public impact from a combination of winter hazards including heavy snow, ice, near blizzard conditions, blowing and drifting snow and/or dangerous wind chills.

**Heavy Snow Warning:** Issued when 7 inches or more of snow is expected in 12 hours or less, or 9 inches or more is expected in 24 hours or less. Heavy Snow Warnings are issued when there is a high degree of confidence that the entire event will be snow.

**Ice Storm Warning:** Issued for a ½ inch or more of ice accumulation which causes damage to power lines and trees. Ice Storm Warnings are issued when there is a high degree of confidence that the entire event is expected to be ice.

**Blizzard Warning:** Issued when blizzard conditions are imminent or expected in the next 12 to 24 hours. Blizzard conditions include sustained or frequent gusts at or above 35 mph and considerable falling, blowing and drifting of snow reducing visibility frequently to 1/4 mile.

**Wind Chill Warning:** Issued when the wind chill is expected to be -25F or less. Frostbite can occur in less than 10 minutes.

#### Advisory's

**Winter Weather Advisory:** Issued for a hazardous combination of snow and ice, of which neither meets or exceeds warning criteria. Issued for winter weather that will cause significant inconveniences or could be life-threatening if the proper precautions are not taken.

**Snow Advisory:** Issued when an average of 4 to 6 inches of snow is expected in 12 hours or less. Snow advisories are issued when there is a high degree of confidence that the entire event will be snow.

**Freezing Rain Advisory:** Any accumulation of freezing rain that can make roads slippery. Freezing rain advisories will only be issued when there is a high degree of confidence that the entire event will be freezing rain only.

**Snow and Blowing Snow Advisory:** Sustained winds or frequent gusts of 25 to 34 mph accompanied by falling and blowing snow, occasionally reducing visibility to 1/4 mile or less for three hours or more.

**Blowing Snow Advisory:** Widespread or localized blowing snow reducing visibilities to 1/4 mile or less with winds less than 35 mph.

**Lake-Effect Snow Advisory:** Issued for an average of 4 to 6 inches of lake-effect snow.

**Wind Chill Advisory:** Issued for wind chills of -15F to -24F. Frostbite can occur in less than 30 minutes.



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### Surviving DRIVING

#### Have The Following Items Checked on Your Car

- Battery
- Antifreeze
- Wipers and windshield washer fluid
- Ignition system
- Thermostat
- Lights
- Flashing hazard lights
- Exhaust system
- Heater
- Brakes
- Defroster
- Oil level; replace oil with a winter grade oil.



#### DID YOU KNOW

The leading cause of death during winter storms is transportation accidents. Preparing your vehicle for the winter season and knowing how to react if stranded or lost on the road are the keys to safe winter driving. Alcohol is not a good survival item and should never be part of your survival kit.



**Use caution when driving in these conditions**  
**Failure to obey**



Might result in this

Black Ice

Or a ride in this

No matter how hard the highway crews work to keep the roads clear, driving can be nasty on snow and ice. Always use caution. When it snows, tune to your local radio, TV news, or weather channels for the latest reports.

#### If You Become Stranded:

- Do not leave your car unless you know exactly where you are and how far it is to possible help, and are certain you will improve your situation by leaving your car.
- To attract attention, light two flares and place one at each end of the car a safe distance away. Hang a brightly colored cloth from your antenna or window.
- If you are sure the car's exhaust pipe is not blocked, run the engine and heater for about 10 minutes every hour or so depending upon the amount of gas in the tank.
- To protect yourself from frostbite and hypothermia, use woolen items, blankets, newspapers and large bags to keep warm.
- Keep at least one window open slightly. Heavy snow and ice can seal a car shut.
- Eat hard candy to keep your mouth moist.





# WINTER DRIVING SAFETY TIPS

Simple, emergency driving maneuvers on slippery roads can save you from accidents and injuries. Below are examples of how steering, braking and deceleration could be the difference between a bad scare and a bad accident.

## IF YOUR REAR WHEELS SKID

**1** Take your foot off the accelerator.

**2** Steer in the direction you want the front wheels to go. If your rear wheels are sliding left, steer left. If they're sliding right, steer right.

**3** If your rear wheels start sliding the other way, ease the steering wheel toward that side. You might have to steer left and right a few times to get your vehicle completely under control.

**4** If you have standard brakes, pump them gently. If you have anti-lock brakes (ABS), do not pump the brakes. You will feel the brakes pulse – this is normal.

**5** Resume driving with Caution.



DON'T DO



STEERING WHEEL



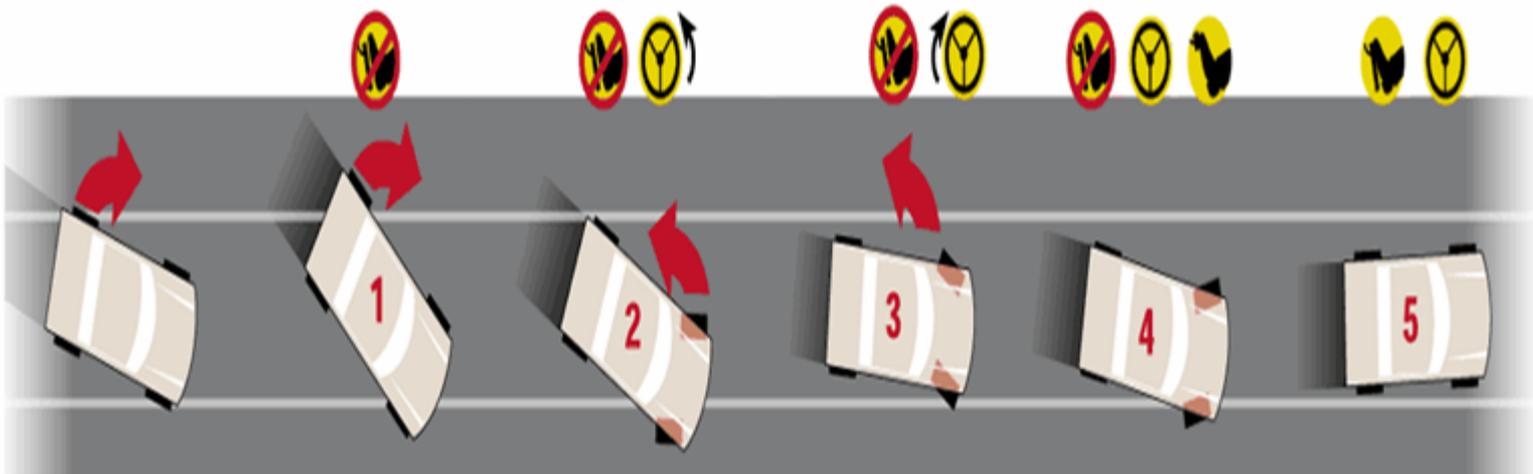
ACCELERATOR



BRAKE



TRANSMISSION



## IF YOUR FRONT WHEELS SKID

**1** Take your foot off the gas and shift to neutral, but don't try to steer immediately.

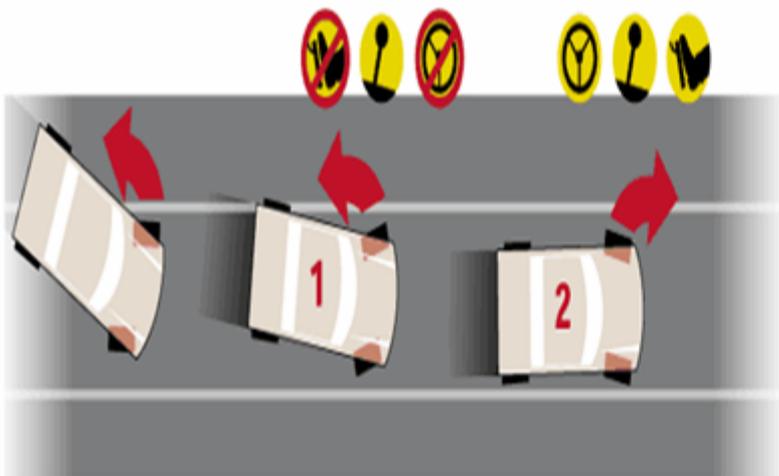
**2** As the wheels skid sideways, they will slow the vehicle and traction will return. As it does, steer in the direction you want to go. Then put the transmission in drive or release the clutch pedal and accelerate gently.

## COLD WEATHER CAR KIT Keep these items handy:

- Flashlights with extra batteries
- First aid kit with pocket knife
- Necessary medications
- Several blankets
- Sleeping bags
- Extra newspapers for insulation
- Plastic bags (for sanitation)

- Matches
- Extra set of mittens, socks, and a wool cap
- Rain gear and extra clothes
- Small sack of sand for generating traction under wheels
- Small shovel
- Small tools (pliers, wrench, screwdriver)

- Booster cables
- Set of tire chains or traction mats
- Cards, games, and puzzles
- Brightly colored cloth to use as a flag
- Canned fruit and nuts
- Nonelectric can opener
- Bottled water





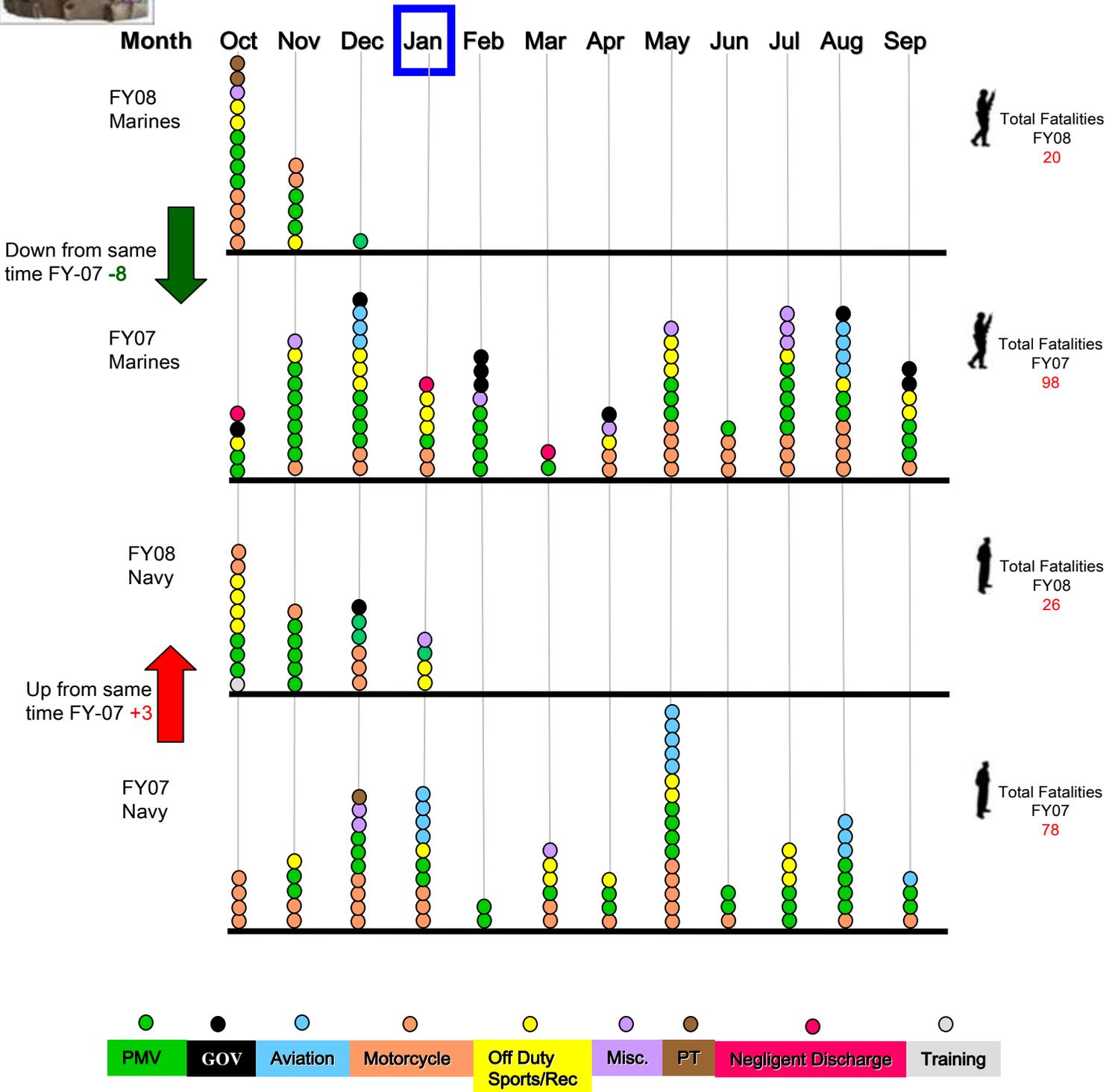
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Better a thousand times careful than once dead.  
Proverb

### Fatality Summary as of 07 Jan 08



Down from same time FY-07 -8



Up from same time FY-07 +3

