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QUARTERLY

RISK MANAGEMENT

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

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Mission Statement:

The U.S. Army Combat Readiness Center preserves Army readiness through analysis, training, and the development of systems that prevent accidental loss of our people and resources.



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**Proceed
with
Caution**

Winter Driving Conditions Ahead

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Operating a vehicle safely in winter weather can be a challenge for even the most experienced drivers. It's easy to forget after months of mild conditions that snow and ice demand careful driving and special preparation for your vehicle. When 17% of all vehicle crashes occur in cold weather conditions, it's clear we could all use a refresher when it comes to making our way through a winter wonderland.

Readying your vehicle

Driving safely begins before you even get on the road. Vehicle preventive maintenance checks and services is the starting point for safe driving year-round. In winter, pay special attention to your vehicle's battery, wipers, coolant, tires and other systems that can take a beating when the temperature drops. When you know your vehicle is ready for the road, clear the snow, ice or dirt from the windows, forward sensors, headlights, taillights and backup cameras.

If you're using snow tires, have them installed before the white stuff begins to fall. Check state and local laws and the Department of Transportation when it comes to winter tires and the use of snow chains.

Most states only permit snow chains for hazardous weather or other related incidents, as long as they do not damage the highway surface. Studded tire use varies by state. Some states only allow the use of rubber studs, while others dictate specific dates for their use. To find out the rules for tire chains in your state, visit the American Automobile Association's (AAA) Digest of Motor Laws at <https://drivinglaws.aaa.com/tag/tire-chains/>. AAA lists states' studded tire laws at <https://drivinglaws.aaa.com/tag/studded-tires/>.

If you're stationed in Europe, remember that Germany has always had requirements for winter tires during the ice and snow season. However, in 2015, those

requirements turned into a much more specific federal law for all of Germany. And since January 2018, there's a new winter tire requirement and symbol. Here's what you need to know:

- Most German motorists have long known the old rule of thumb for putting snow tires on the vehicle: von O bis O, which is short for von Oktober bis Ostern (from October to Easter). It is a recommendation that one should make the change from regular tires to snow tires in October and leave them on until Easter. The new German law does not set any time limits, but it

does clearly state that under icy conditions (bei Glätteis, Schneeglätte, Schneematsch, Eis- und Reifglätte) you must not drive without snow tires on your vehicle. So, since it's difficult to predict the weather, for all practical purposes, the old "von O bis O" rule still applies.

- As of January 2018, newly fabricated winter tires must be marked with an Alpine symbol — a three-peaked mountain pictogram with a snowflake. The new icon is more than a symbol, though. It also reflects the new law that spells out what a winter tire is and sets updated standards. Existing winter tires (M+S-Reifen) with only the old M+S mark will be allowed until Sept. 30, 2024, but the ADAC German automobile club recommends getting new tires with the Alpine three-peak mountain mark as soon as possible. The new law also applies to trucks and buses, but motorcycles are exempt.
- If the police catch you driving in winter conditions without winter tires, you'll have to pay a fine (Bußgeld) of 60 euros, plus a point against you in Flensburg* and possibly an increase in your auto insurance premium. If you are involved in an accident or you block traffic in icy conditions without Alpine tires, the fine goes up to 80 euros and a point against you in Flensburg. (*Flensburg, Germany, is the headquarters for the Kraftfahrt-Bundesamt (KBA). The KBA adds or removes points assessed against your driving record.)
- Radial tires and bias-ply tires cannot be mixed. All four tires must be the same (radial or bias-ply).
- Two snow tires and two regular tires can be combined, but snow tires must be on drive wheels. Two snow tires and two regular tires may be used only if they are of the same type.

If you are stationed in Japan, be mindful the country does not use road salt or do a lot of snowplowing during the winter. Therefore, snow tires or chains are imperative for winter driving. In metro Tokyo, Nagoya or Osaka, you may get away with not needing snow tires. However, it is still highly recommended to keep a set of chains in the trunk, especially if you're likely to be driving to ski resorts or if your neck of the woods is prone to freak snowstorms. If you plan to ship or purchase a vehicle while stationed in Korea, check with your sponsor or gaining unit to determine if winter tires or snow chains are required.



DID YOU KNOW?

- **70% of U.S. roads and 70% of the population are in snowy regions and account for 70% of fatal mishaps during winter months.**

- **1,300 people are killed and 116,800 are injured in vehicle crashes on snowy or icy roads every year.**

Ready yourself

Time management is the key to winter driving. You should drive slowly because it is harder to control or stop your vehicle on a slick or snow-covered road. Increase your following distance enough so you'll have plenty of time to stop for vehicles ahead of you. Also, remember that every vehicle handles differently; this is particularly true when driving on wet, icy or snowy roads. Take the time to learn how your vehicle handles under winter weather driving conditions. In addition, know the weather and traffic conditions before you head out, and plan your route accordingly. Make sure to give yourself more time to get where you're going because you'll be driving more slowly.

Ready for an emergency

Even if you and your vehicle are prepared for winter weather conditions, crashes still do happen. Vehicles can also break down, stranding you in the elements without help nearby. Make sure your vehicle is stocked to help get you out of trouble

or keep you safe until help arrives. Carry blankets, flashlights, jumper cables, and flares or emergency lights in your vehicle. A small bag of non-perishable snacks and water isn't a bad idea either. Even if you don't need them, they can be used to help someone else in trouble on the road. A set of snow chains is also a nice item to have. You never know when they might be needed for extra traction.

Conclusion

Whether you're on or off duty, keep in mind how dangerous operating a vehicle in adverse weather conditions can be. Take the time to prepare yourself and your vehicle before any work-related or personal trip. Factor in extra time for the trip and carry extra winter-related items in case the worst happens. Leaders should also ensure drivers are trained in operating their assigned or personal vehicles in snowy and icy conditions. You may not start your trip in bad weather, but conditions can change rapidly. Be prepared. ■

ARRIVE ALIVE

The following accidents from the U.S. Army Combat Readiness Center's mishap database indicate just how dangerous operating a vehicle in less-than-optimal weather conditions can be.

- A Soldier was driving home in blowing snowy weather conditions when his vehicle slid on the slippery roadway and collided with an oncoming vehicle. The Soldier was transported to a hospital and pronounced dead.
- A Soldier was driving too fast for the icy roads when his vehicle left the roadway and overturned several times. The Soldier riding as a passenger was ejected and suffered fatal injuries. Neither Soldier was wearing a seat belt.
- A Soldier was riding in a vehicle that lost traction on wet/icy roads and slid sideways into oncoming traffic. An SUV struck the vehicle on the passenger side, resulting in the Soldier's fatal injuries.

As the mishap reports above show, operating your vehicle during winter requires special care; but safe driving is a year-round habit. First and foremost, you and every passenger in your vehicle should be wearing seat belts for every ride. Children must be in age- and size-appropriate child seats. Never drive after drinking or when distracted by an electronic device or anything else that takes your attention off the road. These reminders are the essentials for safe driving, whatever the weather.

The American Automobile Association recommends the following tips while driving in snowy and icy conditions:

- Keep a bundle of cold-weather gear in your vehicle, such as extra food and water, warm clothing, a flashlight, a glass scraper, blankets, medications and more.
- Make certain your tires are properly inflated and have plenty of tread.
- Keep at least half a tank of fuel in your vehicle at all times.
- Never warm up a vehicle in an enclosed area, such as a garage.
- Do not use cruise control when driving on any slippery surface, such as ice and snow.

Tips for driving in the snow

- **Stay home.** Only go out if necessary. Even if you can drive well in bad weather, it's better to avoid taking unnecessary risks by venturing out.
- **Drive slowly.** Always adjust your speed down to account for lower traction when driving on snow or ice.
- **Accelerate and decelerate slowly.** Apply the gas slowly to regain traction and avoid skids. Don't try to get moving in a hurry and take time to slow down for a stoplight. Remember, it takes longer to slow down on icy roads.
- **Increase your following distance from five to six seconds.** This increased margin of safety will provide the longer distance needed if you have to stop.
- **Know your brakes.** Whether you have antilock brakes or not, keep the heel of your foot on the floor and use the ball of your foot to apply firm, steady pressure on the brake pedal.

- **Don't stop if you can avoid it.** There's a big difference in the amount of inertia it takes to start moving from a full stop versus how much it takes to get moving while still rolling. If you can safely slow down enough to keep rolling until a traffic light changes, do it.
- **Don't power up hills.** Applying extra gas on snow-covered roads will just make your wheels spin. Try to get a little inertia going before you reach the hill and let that inertia carry you to the top. As you reach the crest of the hill, reduce your speed and proceed downhill slowly.
- **Don't stop going up a hill.** There's nothing worse than trying to get moving up a hill on an icy road. Get some inertia going on a flat roadway before you take on the hill.

Tips for long-distance winter trips

- **Be prepared.** Have your vehicle checked by an approved auto repair facility or conduct your own preventive maintenance checks and services using your owner's manual as a reference before hitting the road.
- **Check the weather.** Check the weather along your route and, when possible, delay your trip if bad weather is expected.
- **Stay connected.** Before hitting the road, notify others and let them know your route, destination and estimated time of arrival.
- **If you get stuck in the snow:**
 - **Stay with your vehicle.** Your vehicle provides temporary shelter and makes it easier for rescuers to locate you. Do not try to walk in a severe storm. It is easy to lose sight of your vehicle in blowing snow and become lost.
 - **Don't overexert yourself.** When digging out your vehicle, listen to your body and stop if you become tired.
 - **Be visible.** Tie a brightly colored cloth to the antenna of your vehicle or place a cloth at the top of a rolled-up window to signal distress. At night, keep the dome light on if possible. It only uses a small amount of electricity and will make it easier for rescuers to find you.
 - **Clear the exhaust pipe.** Make sure the exhaust pipe is not clogged with snow, ice or mud. A blocked exhaust pipe can cause deadly carbon monoxide gas to leak into the vehicle's passenger compartment while the engine is running.
 - **Stay warm.** Use whatever is available to insulate your body from the cold. This could include floor mats, newspapers or paper maps. Pre-pack blankets and heavy clothing to use in case of an emergency.
 - **Conserve fuel.** If possible, only run the engine and heater long enough to remove the chill. This will help to conserve fuel.

As the old saying goes: "An ounce of prevention is worth a pound of cure." These simple tips could prevent you from becoming a statistic in the USACRC's mishap case files. Stay safe out there this winter!



Preparing Your Ride for a **WINTER** Nap.

Properly preparing your motorcycle for winter storage can save time, headaches and money, especially once nice weather rolls around and the riding season begins. Since every motorcycle has different designs and specifications, these instructions are intended to provide a general overview of the process. You should refer to your motorcycle owner's manual and repair manual for additional information.

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Step 1: Give it a transfusion

Change the oil after you complete your last ride of the season. Oil is the lifeblood of the engine. Giving it a fresh transfusion of new oil will ensure your bike is ready to roll come spring. Each motorcycle is different, so be sure to consult with your owner's manual and/or repair manual for the specifics (particularly the type of oil, size of the oil filter, amount of oil, etc.) for your model. If you're mechanically inclined, clean the carburetors so they don't gunk up over the course of winter. If you plan on storing your bike for more than three months, this idea makes a lot of sense. A quick internet search of the type of motorcycle you own should provide you enough additional information about how to remove and clean your carburetors.

Step 2: Give it a bath

Cleaning the previous season's grit off your paint will ensure it won't damage the finish over the course of winter. Using soap, a sponge, a bucket and water, thoroughly wash the dirt, grime and bugs off your motorcycle and leave it out in the sun to dry.

Step 3: Give it a drink and a shot

A half-empty fuel tank and untreated gas can create major, expensive issues over the course of time. A full fuel tank helps prevent rust from forming inside, and treated gasoline will help prevent gunk and varnish from forming in the engine. After your bike has thoroughly dried from the washing you gave it in Step 2, remove the fuel cap, grab the gas can and give it a "drink" by filling the tank three-fourths full. After consulting the directions on the fuel stabilizer, give it a "shot" by pouring the appropriate amount into the gas tank. Then fill the rest of the tank with gas, which will help prevent the inside from rusting over the winter. After putting the gas cap back on, start your bike and let it run for about five minutes so the stabilizer will have a chance to treat

the entire fuel system. At this point, drive the bike to the location where it will be stored for the winter.

Step 4: Put it to bed

Drive your motorcycle to its winter storage location, preferably a warm, dry spot such as a garage or shed. If you don't have a garage or shed, a parking spot will do. Turn the motorcycle off and allow the engine and mufflers to cool down. If possible, to save wear and tear or prevent flat spots on your tires, set the bike on jack stands just high enough to break contact with the ground or place carpet or cardboard under the tires. Then fill the tires to the maximum air pressure. If you don't place your bike on jack stands, be sure to check for flat spots before operating it again.

Step 5: Protect it from unwanted guests

Critters love to climb in dark, cozy locations — like a motorcycle muffler — during winter months. To prevent them from nesting in your mufflers, place motorcycle exhaust plugs (recommended) in them. If you don't have motorcycle exhaust plugs, simply put a plastic bag over your muffler and use a rubber band to hold it in place.

Step 6: Prepare it for a bypass

For exact instructions, refer to your owner's manual or repair manual. Remove the connectors to your battery and lift it out of the battery case. Remember which side the red wire was attached to (and that red is positive).

Step 7: Connect it to a bypass machine

A trickle charger is highly recommended to provide a steady, low stream of electricity to the battery, enabling it to stay charged through long periods of inactivity. Follow the instructions on connecting your battery to the charger, being careful to make sure the clamps don't touch. Don't forget to plug in the charger!

Step 8: Tuck it in

Finally, cover your motorcycle. Use a cover designed for your bike. It should be made of breathable material that will not trap moisture. For those of you storing your motorcycle outside, this step is a must and can be augmented by adding a more weather resistant or waterproof tarp. If storing your bike outside, make sure you secure the cover to prevent it from blowing off. A cover will help shield the bike from the elements, namely snow, ice and other particles that may scratch the paint or cause rust. If you are storing your motorcycle indoors, the cover will also add an extra layer of protection — but hopefully your bike will not be as susceptible to winds or snowstorms. That's it! Your motorcycle is now properly prepared for its winter hibernation.

One final note

If you plan on storing your bike for longer than three months, it's a good idea to re-install the battery, remove the muffler covers and start the motorcycle about once a month, letting it run for 5-10 minutes. Rev the engine a few times to help clear gasoline that has been sitting out of the carburetors and then shut the engine off and allow it to cool down. Afterward, repeat Steps 5 through 8. See you again when the riding season begins! ■





CAPITALIZING ON TRANSITIONS

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Over the past few months, myriad challenges emerged necessitating agile leadership as we manage numerous transitions in how we do business in the Army. Not only are we dealing with transitions in how we conduct operations, we are also dealing with multiple personnel / leadership transitions. As I settle into my new role as deputy commander of the U.S. Army Combat Readiness Center, I see safety challenges and successes across the Army as the environment and leadership change. Now is the time to capitalize on transitions in each of our organizations and exploit this opportunity to make the Army team better. As the chief of staff of the Army said, we must follow certain calls to action, including managing transitions, understanding the environment and being present as leaders.

Managing transitions requires a multifaceted approach as we continue operations through the remainder of the fourth quarter. At this point in the fiscal year, we should be through the majority of the PCS season and are beginning to rebuild our team to conduct its wartime mission most effectively. It is essential to set expectations early and confirm they were conveyed to the lowest level within our ranks. Assessing our new leaders and training plans are key during this potentially tumultuous period to ensure we are minimizing risk while continuing to conduct tough, realistic training. Managing transitions is all about engaged leaders

being proactive, verifying that the entire unit knows the standard and providing the tools for success. Obviously, the environment continues to change throughout the year, and each season brings its own distinctive problem set. Leaders and Soldiers must know how to react to these changes. Part of managing environmental transitions is knowing the effects of the environment on Soldiers and equipment. For Soldiers, the environmental effects are exacerbated as they transition from one installation to the next. Just because a Soldier or leader was proficient at a previous duty station does not mean they will be in their new

environment. Leaders must carefully manage the transition of new Soldiers and leaders through specific environmental training for the location and time of year. Effective leadership in a unit requires three things — knowledge, presence and courage. Leaders must have the knowledge to lead; they must provide clear guidance and resource effective training to execute their assigned mission. Additionally, leaders must be present in the right location to provide required oversight and make appropriate risk decisions. Commanders must conduct holistic crew assessments to validate their ability to conduct their assigned mission. This applies to all aircrews, maintenance crews and vehicle crews. Finally, all members of the team must have the courage to speak up to protect the force and mission.

It's about developing a culture of safety through effective leadership as well as fostering a team that upholds standards and looks after one another on and off duty. Over the past year, Army Aviation has continued to react to numerous dynamic challenges to the force, requiring leaders at every level to be extremely agile. Whether these challenges are the result of normal Army processes such as PCS moves and changes of command/responsibility or

unique situations such as the challenges associated with COVID-19, we cannot afford to lose these lessons learned. We must capitalize on these hard-fought wins by updating our standard operating procedures and evolving our training plans. While some may see managing transitions as a plan to prevent mishaps during the transition, we must change our viewpoint to see it as an opportunity

“EFFECTIVE LEADERSHIP IN A UNIT REQUIRES THREE THINGS — KNOWLEDGE, PRESENCE AND COURAGE.”

for growth to improve our teams and prevent accidents throughout the year. Capitalize on the transition! Please don't forget to visit the CRC's website (<https://safety.army.mil/>) for many valuable tools to help your team preserve the readiness you have trained so hard to build throughout the year. ■

Readiness Through Safety!

PREPARE TO EMBRACE **CHANGE:** **ASMIS** 2.0 NEW MISHAP REPORTING CATEGORIES

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An often-quoted Greek philosopher stated, “The only constant in life is change.” This is certainly true for the evolution of safety processes and how we collect, analyze and utilize information gleaned from mishap investigations.

When the Army Safety Management Information System (ASMIS) 2.0 mishap and near-miss reporting tool is released, you will find many changes to the reporting process beyond the reporting platform itself. To comply with Department of Defense mishap reporting requirements and to provide improved data for analysis, mishap categories have changed significantly. Common terminology must be used to properly aggregate mishap data provided from all the military services. This is a driving force behind the new mishap categories. There are also “minimum data elements” each of the services is required to report on mishaps, which will result in various data points that are required to successfully submit a mishap report to the U.S. Army Combat Readiness Center.

To ensure the appropriate data elements are collected while avoiding irrelevant questions (e.g., asking if a Soldier injured while running PT was wearing a seat belt), users will select a mishap category under

Aviation or Ground to create a report. They will then go through a series of questions/instructions to enter information. Further information may be required based on specific responses. Many of the data fields utilize a menu to select from rather than free text in order to standardize data for analysis. The new mishap categories for reporting are as follows:

AVIATION

- **Manned** — A mishap involving an Army aircraft flown under the control of onboard personnel.

- **Unmanned** — A mishap involving an Army aircraft operated without the possibility of direct human intervention from within or on the aircraft. It is operated by personnel on the ground or in a manned aircraft.

- **Aerostat** — A mishap involving an Army aerostat. *Note: Aerostat is a generic term used to describe lighter-than-air platforms that are tethered and considered operational when the system platform (or launchpad) is manned and power is applied to winches and other safety release devices as part of the launching process.*

GROUND

- **Motor Vehicle** — A mishap involving a motor vehicle while it is in operation.

- **Sports, Recreation and Physical Training** — A mishap associated with leisure, sports and physical fitness activities. Leisure/recreational activities are those often done for

enjoyment, amusement or pleasure. This includes both mandatory and voluntary, group and individual fitness activities (unit runs, physical training tests, organized unit fitness training, etc.) and events that occur onboard DoD vessels.

- **Industrial/Occupational** — A mishap that involves operations similar to those performed in private industry that is not included in the other mishap categories such as motor vehicle. This includes, but is not limited to, equipment maintenance, facility construction and maintenance, health care provision, veterinary services, laboratory research, public law enforcement, firefighting, transportation, and administrative and clerical tasks. It also includes mishaps that occur onboard DoD vessels that result from shipyard, repair facility or private contractor operations.

- **Weapons/Explosives** — A mishap involving individual weapons, weapon systems, ammunition or explosive materials. Any unplanned or planned explosion or functioning of explosives materials or devices, which results in unintended damage or injury (not as a result of enemy action) that are not guided missile, chemical agent or radiation mishaps. They include the inadvertent actuation, jettisoning, and releasing or launching of explosive devices and impacts of ordnance off range/target. They also include the accidental (negligent) discharge of small-arms

weapons (in unit arms rooms, on guard duty) and hunting or recreational shooting accidents.

- **Combat Skills/Military Unique** — A mishap that occurs while conducting combat operations or military training activities/exercises designed to develop or maintain individual or collective combat or peacekeeping skills. This includes those skills or tasks that are directly associated with training for, or conducting combat operations such as locate, close with, and destroy the enemy with fire and maneuver, and to repel the enemy assault by fire and close combat. It also includes these events that occur onboard DoD vessels.

- **Military Parachuting (Personnel)** — A mishap that occurs during operations involving the aerial delivery of personnel involving the use of aircraft. It does not include off-duty, recreational parachuting or skydiving activities. These should be reported as Sports, Recreation and Physical Training mishaps. Military parachute training not involving jumping from an aircraft in flight should be reported as Combat Skills/Military Unique.

- **Military Parachuting (Cargo)** — A mishap that occurs during operations involving the aerial delivery of equipment involving the use of aircraft.

- **Military Diving** — A mishap involving military dive operations, including construction/fabrication, tactical diving, and marine diving accidents classified as Type II Decompression Sickness or Pulmonary Over Inflation Syndromes. It does not include off-duty, recreational diving or dive operations in direct support of an afloat vessel. Recreational diving should be reported as Sports, Recreation and Physical Training mishaps.

- **Military Vessels** — A mishap involving shipboard-unique events, including collision, grounding, flooding, line handling, docking, resupply, rigging and shipboard fires. It does not include industrial and occupational events defined elsewhere, even though they took place while afloat.

- **Rail** — A mishap involving railroad-unique events involving Army-owned rail equipment, including impacts, derailment, a runaway train, fire/explosions initiated by the rolling stock or other rail-specific mishaps. It includes specialty equipment used for track repairs, inspections and construction. It does not include industrial and occupational events defined elsewhere, even though they occurred on or near rail cars. It also does not include damage to Army equipment damaged solely as a result of loading and unloading while the rail car is not in motion.

- **Other Ground** — A ground mishap that does not meet the criteria of other ground mishaps. This includes on-duty injury and property damage cases that do not fit elsewhere and other off-duty mishap types.

The entry of information in the tool will be further categorized in the database to provide greater detail for analysis. For example, while all motor vehicle mishaps will be entered in the same reporting category, output will allow that information to be presented in subcategories such as Government Motor Vehicle and Private Motor Vehicle. Private Motor Vehicle will be further categorized into PMV-2, PMV-4 and PMV-Pedestrian/Non-Motorist. The new application will also provide visibility to a multitude of mishap information to support decision-making at the appropriate level in the risk management process.

It is a well-known fact that human beings are resistant to change. Without a doubt, the new ASMIS 2.0 mishap and near-miss reporting tool is going to present a significant change to the reporting process. We ask that you embrace the change and work with us to continuously improve our Army's tools and processes as we deploy this mishap and near-miss reporting tool and the follow-on applications that will complete the Army Safety Management Information System. ■



Hunting Safety: Full-body Harnesses

Most tree stand accidents involve falls from heights. One of the consistent top 10 OSHA violations is lack of fall protection. What do these two things have in common? Falls at work or during recreational activities can be easily prevented by following a few safety rules.

One of the major innovations developed over the past several years to prevent tree stand injury is the full-body harness (FBH). The concept was borrowed from the construction industry, where it has been very effective at preventing injuries and death. An FBH is not the same thing as a safety belt. An FBH fits snugly, allowing freedom of movement so it is not in your way when shooting.

Safety belts were developed decades earlier. While they did prevent impacts with the ground, they caused other medical problems. Studies examining falls that occurred using a safety belt indicate that you only have a few minutes before loss of consciousness. It is also possible that the constriction around your waist could kill you, as blood flow is restricted and cannot get to

vital organs. While it is possible to have circulation problems with an FBH, it won't happen as quickly, giving you more time to extricate yourself from the situation.

To properly put on a safety harness, first put your arms through the shoulder straps and secure the chest strap. Next, secure and tighten the thigh straps. Your harness is then ready to go. The FBH straps must be

tight, but they should not bind or restrict movement. Most tree stand manufacturers provide an FBH with the stand, but more comfortable harnesses can be purchased separately. These improved harnesses include features like padding, quick-release buckles and pockets for storing smaller items.

An FBH secures the hunter to the tree or lifeline with a tether located on the back of the harness just below the neck. The harness straps around the thighs and chest, which distributes pressure throughout the body. This prevents you from being folded in half during a fall, which often occurred with a safety belt. A lifeline, or "safe line," is a rope that attaches at the bottom and top of the tree. The FBH is attached by a tether to the lifeline using a carabiner or similar system. The tether easily slides up and down the lifeline, providing fall protection from the ground to your stand. When used properly, a tether and harness keeps you from falling more than a foot to 18 inches.

Secure the tether on the FBH to the tree a few feet above your head when sitting in your stand. Hunters often don't attach the strap high enough in the tree. If a fall occurs, they are hanging too far below

the platform to climb back into the stand, leaving them dangling. When anchoring the FBH tether to the tree, place it around the trunk above your head, adjusting the height to leave only sufficient slack so you can sit down. If a fall occurs, this ensures a short drop, allowing you to climb back into the stand without much difficulty.

While wearing an FBH will prevent major injuries, you must act quickly to get back onto the security of the tree, your stand or the ground to prevent further injury. Hanging for long periods of time, even in an FBH, can cause serious complications. Suspension trauma is caused by being upright and immobile, which can occur if you fall while wearing an FBH. Because the victim is suspended in an upright position with their legs hanging, blood begins to accumulate in the lower extremities. This reduces the flow of oxygenated blood to the heart and brain. After a fall, the leg straps on the FBH can also exert pressure on veins in the legs, compressing them and further reducing blood flow back to the heart. One of the primary ways to slow the progression of suspension trauma is to stand up. Standing causes the leg muscles to contract, which improves circulation.

If you fall and cannot immediately return to your stand or ladder, act quickly to relieve pressure from your legs with the harness's suspension relief strap. Suspension relief straps are attached to each side of the harness, creating a loop that you can put your feet into and press against to simulate standing up. If your FBH does not have one incorporated in its design, one can be inexpensively added to the harness. Other methods to avoid suspension trauma include placing your feet against the tree while bending and straightening your legs or carrying a screw-in step. Screwing a step into the tree and stepping up on it several times a minute can relieve the pressure created by the straps in the groin area, improving blood flow. Carrying a cellphone is also important so hunters can call for help.

Proper use of an FBH can reduce the chance of serious injury. Unfortunately, many hunters don't realize the value of an FBH or using fall protection as they climb into their stand until they are lying on their back on the ground or in a hospital bed. ■

FYI

Following these simple precautions can reduce your chances of injury or death when hunting from an elevated position.

1. Always use a full-body harness (FBH) in accordance with the manufacturer's instructions.
2. Never leave the ground without wearing an FBH.
3. Do not use a safety-belt-type harness, which can cause loss of consciousness after a fall.
4. Use the FBH during ascent and descent from your tree stand. Most falls occur when hunters step onto or from their tree stands.
5. Prolonged suspension can result in trauma or death, so ensure suspension relief straps are attached to your FBH.
6. Always carry a cellphone or other means of emergency communication.
7. Inspect your tree stand and harness for signs of wear or damage before each use. The harness should be replaced after a fall has occurred.
8. Never climb while carrying gear, which could affect your balance. Use a haul line to pull up and lower your gear.
9. Let others know in advance your exact hunting location and when you plan to return.

We live in a noisy world. Combat military weaponry, personal and vehicle stereos and high-powered machinery are just a few of the noises Soldiers are exposed to every day. Excessive noise disrupts sleep, produces stress, impairs communication and, in high enough doses, causes significant noise-induced hearing loss (NIHL).

According to the U.S. Department of Veterans Affairs, hearing problems — including tinnitus, which is a ringing, buzzing, whistling or other sound in the ears or head without an external source — are by far the most prevalent service-connected disability among American veterans. Much of the hearing loss these individuals suffered is largely due to preventable, noise-induced wear and tear on the auditory system that happened much earlier in their lives.

Soldiers are required to have an audiogram conducted each year to monitor hearing loss. If the test reveals

sufficient hearing loss, the medical staff attempts to identify the type and educate the Soldier on hearing conservation to prevent future hearing loss. Often the education process is nothing more than the issuance of earplugs and a hearing conservation pamphlet that explains how to protect your hearing. The Soldier may attempt to arrest the hearing loss by wearing hearing protection for a few days, possibly even a couple of weeks. Eventually, though, many will fall back on their old ways until the next annual audiogram, at which time the cycle is repeated.

LOUD AND CLEAR

BILL WILLIAMSON

Numerous sources of noise in the environment have the potential to produce NIHL. Because shooting is so prevalent in our military culture, it poses the greatest risk to many Soldiers' hearing. Clinical reports documenting hearing loss after exposure to shooting have been documented since the 1800s. Reported peak sound levels from weapons have ranged from 132 decibels (dB) for small-caliber rifles and pistols to more than 172 dBs for high-powered rifles and shotguns. What does this decibel scale mean to the Soldier?

It is difficult to grasp how much acoustic energy is in a single gunshot. The acoustic energy in a single report from a high-powered rifle, pistol or shotgun is equivalent to almost 40 hours of continuous exposure at 90 dBA.

In other words, one bullet equals one week of hazardous occupational noise exposure according to Occupational Safety and Health Administration and Department of Defense standards. Because shells are often packaged in boxes of 50, shooting an entire box without hearing protection is equivalent to working in a 90 dBA environment for a full year! A Soldier qualifying on a target range without hearing protection can produce an entire year's worth of hazardous occupational noise exposure in just a few minutes.

Currently, the only way to detect functional hearing loss is through routine hearing tests. Unfortunately, by the time functional hearing impairment is detected, injury to the auditory system is usually at an advanced stage. Therefore, the key to prevention is education.

Leaders can assist Soldiers at risk for hearing loss by teaching them to avoid exposure to unwanted noise and how to become more sensible when exposing themselves to desired sounds. For example, leaders can recommend all Soldiers avoid other noisy activities the day before and day of firing weapons on a target range. Research has shown that rest periods interspersed with an otherwise hazardous exposure to noise can greatly reduce auditory damage.

In situations where noise cannot be eliminated, Soldiers should be advised to wear hearing protection. The most commonly used types of protection are earplugs or earmuffs, which come in a variety of styles and sizes. The advantages of earplugs include their small size, low cost and relative comfort. On the other hand, earmuffs fit over the ear, are heavier than earplugs and are reusable. When kept in good condition, earmuffs can also be considerably cheaper

than disposable earplugs. However, a seal must be made between the earmuff cushion and the side of the head; any break in the seal renders the earmuff useless.

Most Soldiers will find foam earplugs the protection of choice because they are inexpensive, comfortable, disposable and commercially available. While each is effective and wearing both is often recommended, the most effective type of earplug or earmuff is the one that is actually used.

Although there is a lot of published information on NIHL, it is usually undetected until the damage is already done. While efforts have been made to reduce noises at their source, educating Soldiers on the importance of preserving hearing into their old age is the best method for conservation. Leaders can help Soldiers understand the importance of preserving their hearing for their golden years by becoming involved and taking precautionary steps to prevent NIHL. ■

DID YOU KNOW?

October is recognized as National Protect Your Hearing Month. For information about protecting yourself from noise-induced hearing loss, visit the Centers for Disease Control and Prevention website at https://www.cdc.gov/nceh/hearing_loss/.

DECIBEL EXPOSURE TIME GUIDELINES

The following are the National Institute for Occupational Safety and Health's recommended exposure times to noise, which the U.S. Army has adopted as its standard to reduce hearing loss due to noise. For every 3 dB over 85 dB, the exposure time to noise is cut in half. Note that the Army standard is stricter than the OSHA standard that allows 90 dB over 8 hours and halves the exposure time with every 5 dB above 90 dB.

<i>Continuous dB</i>	<i>Permissible Exposure Time</i>
85 dB	8 hours
88 dB	4 hours
91 dB	2 hours
94 dB	1 hour
97 dB	30 minutes
100 dB	15 minutes
103 dB	7.5 minutes
106 dB	3.75 minutes (< 4 minutes)
109 dB	1.875 minutes (< 2 minutes)
112 dB	.9375 minutes (about 1 minute)
115 dB	.46875 minutes (about 30 seconds)

SOUND ENCOUNTERS

When you notice a difference between loud sounds and quiet ones, your ears are perceiving changes in sound pressure level. Intensity (or volume) is measured in decibels (dB). Zero dB is the softest sound that can be heard. Pain from hearing is subjective. To the average person, levels above 125 dB are painful, while to others, levels below 125 dB may be painful. Below are the decibel levels of a few sounds Soldiers might encounter.

Rustling leaves	20 dB
Quiet whisper (3 feet)	30 dB
Normal conversation	60 dB
Automobile (25 feet)	80 dB
Motorcycle (30 feet)	88 dB
Subway (inside)	94 dB
Power mower (3 feet)	107 dB
Jet plane (100 feet)	130 dB
.410 shotgun with 28-inch barrel	150.01 dB
12-gauge shotgun with 28-inch barrel	151.50 dB
20-gauge shotgun with 28-inch barrel	152.50 dB
.45 Colt	154.7 dB
.223/5.56, in 18-inch barrel	155.5 dB
.44 Special	155.9 dB
.308/7.62 in 24-inch barrel	156.2 dB
.45 ACP	157.0 dB
9 mm	159.8 dB
.357 Magnum	164.3 dB



You Bet Your Life

CHIEF WARRANT OFFICER 4 JEFFERY DANITZ
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Would you go to Las Vegas and bet your life on one spin of the roulette wheel? I hope not! You'd probably question the intelligence of anyone willing to make such a gamble. Yet, many of our Soldiers bet their lives every day when they don't use their seat belts or restraints in tactical vehicles. Why is this happening?

I heard all of the familiar excuses while working as a safety adviser to the Combined Joint Task Force-7 command staff in Iraq: "The seat belt keeps me from getting out of the vehicle quickly." "It restricts me from turning sideways in the seat." This one really scared me — "I was told not to use it."

Aside from a commander telling them to not use seat belts, why would Soldiers make an independent decision to not buckle up

in combat? People make decisions based on their perception of the likelihood an event will occur. Roadside bombings and ambushes are common in combat, so it's natural Soldiers will do everything possible — including not wearing seat belts — to "protect" themselves during these events.

Perception of occurrence is influenced by perception of control, and this factor plays into Soldiers' decision-making processes,

including seat belt usage. When someone thinks they're in control, they believe they're less likely to have an accident. However, we can't control the enemy and can't predict with any certainty when they'll strike. Thus, Soldiers perceive the occurrence of an attack as being highly likely to occur because of their lack of control.

This skewed perception can get Soldiers in trouble. Some Soldiers believe they're

more likely to die because they can't get out of a vehicle quickly during an ambush or bombing. In their minds, the risk of injury or death in a rollover or other accident is secondary. It makes sense to them to not wear seat belts in combat. This logic is flawed. Plus, Army regulations say seat belts must be worn at all times — even in combat.

An intelligent person learns from their own mistakes, but a wise individual learns from the mistakes of others. I hope you'll make sound decisions and carry out safe operating procedures every time you begin a mission.

Remember, the probability of you making it home safely is much greater if you wear your seat belt. Your family deserves it and the Army will thank you for it. ■





PHONE FOD

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In 2010, I was attached to a general support aviation battalion company. Just a year out of flight school, I'd become a pretty confident Black Hawk pilot. My company was about a year away from deploying to Afghanistan and recently acquired some new Soldiers. As is standard practice in the Army, the unit issued a roster with everyone's contact information, which I painstakingly entered into my Nokia flip phone. At this time, larger smartphones weren't as ubiquitous as they are now. Mine was one of the smallest phones on the market and easily lost in an Army flight suit's large pockets. I never imagined that little Nokia would help shake my confidence.

On this particular day, I was conducting preflight checks on a UH-60A in preparation for a joint training exercise with the Air Force. I hadn't noticed anything unusual until I got to the tail rotor, when I realized that my lower cargo pocket was unzipped. I didn't think anything of it. I just zipped it back up and continued about my business. I had other stuff to take care of before the exercise, so I was in a bit of a hurry.

We completed our mission late that evening. As we gathered our equipment out of the aircraft, I reached into my lower cargo pocket to grab my phone, but it was missing. I then looked through my other pockets and all of my bags, but still nothing. Out of places to search, I did the next logical thing: I got one of the new Soldiers in the unit, Jenny, to call my phone.

We were standing on the co-pilot side of the aircraft when I heard a faint ringing sound coming from the rear of the Black Hawk. As luck would have it, I'd put my phone on a setting that automatically sent callers to voicemail if I didn't pick up after five rings, so Jenny had to call it several times. As we walked the perimeter of the aircraft, it became apparent the ringing was coming from the engine cowling. My heart sank. "How could you be so careless," I thought to myself. I knew I would have to brief the commander on what I did.

I continued closing out our flight, all the while dreading what I was going to tell the commander. How would I even tell her? What would I say? Should I act remorseful or play it cool like it was no big deal?

Fortunately, my commander was a very compassionate leader. She was 10 years my elder but wise beyond her years. I'd never seen her lose her cool or yell. That wasn't her style. I realized the dread I was feeling was not out of fear of being yelled at or reprimanded; I didn't want to let her down. While I don't recall exactly what my

punishment was, I know it involved giving a safety briefing to the entire company. What I remember more vividly was my commander's compassion toward me.

I drove home in silence that evening, lost in deep thought. When I got home, I didn't address the incident with anyone in my household. I just went upstairs and showered. When I was done, I got dressed and went back downstairs to grab something to eat. I found my wife in the kitchen looking through my phone. She looked up and asked, "What's going on with you today? You haven't answered any of my calls. And why do you have 20 missed calls from someone named Jenny?" This broke me out of my spell. I explained

"ON THIS DAY, I DIDN'T FIND ANY FOD ON MY PREFLIGHT, BUT I UNKNOWINGLY LEFT SOME BEHIND."

what had happened at work and we had a good laugh about all of those missed calls from Jenny.

As aviators, we know the importance of conducting a thorough preflight of our aircraft. It helps us ensure nothing is out of place, such as hardware or tools from a previous maintenance task. These items, known as foreign object debris (FOD), may result in damage to equipment and become a contributing factor to a mishap. On this day, I didn't find any FOD on my preflight, but I unknowingly left some behind. What I hope you learn from my story is the importance of conducting a preflight inspection of your flight suit before you preflight your aircraft. Ensure all of your pockets are zipped or secured. Anything you carry on your person, from cellphones to pens to loose change, can become FOD. No one wants their carelessness to be the cause of a catastrophic accident. ■

Hazard Identification and Assessment

✓	Hazardous materials policy and safe work procedures are in place
✓	Products are labeled properly
✓	Safety Data Sheets are available
✓	Products are stored properly
✓	Education and training provided to employees
✓	Appropriate control measures are in place

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Failure to identify hazards on the job site is one of the root causes of workplace injuries. A critical element of any effective safety and health program is a proactive, ongoing process to identify and assess these hazards. To do so, units and organizations need to follow the six simple steps below.

1. Collect existing information about workplace hazards

Remember to consider your safety and installation industrial hygiene offices as resources for this as well as job hazard analyses (JHA) prepared for the worksite.

Information on workplace hazards may already be available from both internal and external sources. Collect, organize and review the information with workers to determine what types of hazards may be present and which workers may be exposed or potentially exposed. Information available in the workplace may include:

- Equipment and machinery operating manuals
- Workplace inspection reports
- Safety Data Sheets (SDS) provided by chemical manufacturers
- Records of previous injuries and illnesses
- Workers' compensation records and reports
- Patterns of frequently occurring injuries and illnesses
- Industrial hygiene surveys
- Existing unit safety and health programs
- Input from workers
- Results of JHAs

Some hazards, such as housekeeping and tripping hazards, should be fixed immediately. Fixing hazards on the spot emphasizes the importance of safety and health and takes advantage of a safety leadership opportunity.

2. Inspect the workplace for safety hazards

Hazards can be introduced over time as work processes change, equipment or tools become worn or replaced, maintenance is neglected, or housekeeping practices decline. Scheduling regular workplace inspections for hazards can help identify shortcomings so they can be addressed before an incident occurs.

- Conduct regular inspections of all operations, equipment, work areas and facilities. Have workers participate as members of the inspection team and talk to them about hazards they see or report.
- Document inspections so they can be used later to verify that hazardous conditions were corrected.
- Include all areas and activities in these inspections, such as storage and warehouses, facility and equipment maintenance, office areas, and the activities of onsite contractors, subcontractors and temporary employees. Don't forget to also check common areas like break rooms, restrooms and showers.
- Regularly inspect both powered industrial trucks (e.g., forklifts) and transportation vehicles (e.g., cars, trucks).
- Use checklists that highlight things to look for. Typical hazards fall into several major categories, such as those listed



may not have an immediately noticeable harmful effect. Health hazards include chemical hazards (solvents, adhesives, paints, toxic dust, etc.), physical hazards (noise, radiation, heat, etc.), biological hazards (infectious diseases), and ergonomic risk factors (heavy lifting, repetitive motions, vibration). Requesting your supporting occupational health office to review workers' medical records can be useful in identifying health hazards associated with workplace exposures.

below. Each workplace will have its own list of categories.

- General housekeeping
- Slip, trip and fall hazards
- Electrical hazards
- Equipment operation
- Equipment maintenance
- Fire protection
- Work organization and process flow (including staffing and scheduling)
- Work practices
- Workplace violence
- Ergonomic problems
- Lack of emergency procedures
- Before changing operations, workstations or workflow; making major organizational changes; or introducing new equipment, materials or processes, seek the input of workers and evaluate the planned changes for potential hazards and related risks.

3. Identify health hazards

Identifying workers' exposure to health hazards is typically more complex than identifying physical safety hazards. For example, gases and vapors may be invisible, have no odor and

- **Identify chemical hazards** – review SDS and product labels to identify chemicals in your workplace that have low exposure limits, are highly volatile, or are used in large quantities or in unventilated spaces. Identify activities that may result in skin exposure to chemicals.
- **Identify physical hazards** – identify any exposures to excessive noise (areas where you must raise your voice to be heard by others), elevated temperatures (indoor and outdoor), or sources of radiation (radioactive materials, X-rays or radiofrequency radiation).
- **Identify biological hazards** – determine whether workers may be exposed to sources of infectious diseases, molds, toxic or poisonous plants, or animal materials (fur or scat) capable of causing allergic reactions or occupational asthma.
- **Identify ergonomic risk factors** – examine work

activities that require heavy lifting, work above shoulder height, repetitive motions or tasks with significant vibration.

- **Conduct quantitative exposure assessments** – request the supporting installation industrial hygiene program office to sample the workplace.

4. Conduct incident investigations

Workplace incidents — including injuries, illnesses, close calls/near misses and reports of other concerns — provide a clear indication of where hazards exist. By thoroughly investigating every incident and report, hazards likely to cause future harm can be identified. The purpose of an investigation must always be to identify the root cause (and there are often more than one) of the incident or concern to prevent future occurrences.

Develop a clear plan and procedures for conducting incident investigations. Effective incident investigations do not stop at identifying a single factor that triggered an incident. They ask the questions “Why?” and “What led to the failure?” For example, if a piece of equipment fails, a good investigation asks: “Why did it fail?” “Was it maintained properly?” “Was it beyond its service life?” and



“How could this failure have been prevented?” Similarly, a good incident investigation does not stop when it concludes that a worker made an error. It asks questions such as “Was the worker provided with appropriate tools and time to do the work?” “Was the worker adequately trained?” and “Was the worker properly supervised?”

5. Identify hazards associated with emergency and non-routine contingency plans

Emergencies present hazards that need to be recognized and understood. Non-routine or infrequent tasks, including maintenance and startup/shutdown activities, also present potential hazards. Plans and procedures need to be developed for responding appropriately and safely to hazards associated with foreseeable emergency scenarios and non-routine situations.

- Identify foreseeable emergency scenarios and non-routine tasks, taking into account the types of material and equipment in use and the location within the facility. The time to consider how to

respond is gone while the scenario/task is happening. Scenarios such as the following may be foreseeable:

- Fires and explosions
- Chemical releases
- Hazardous material spills
- Startups after planned or unplanned equipment shutdowns
- Non-routine tasks, such as infrequently performed maintenance activities
- Structural collapse
- Disease outbreaks
- Weather emergencies and natural disasters
- Medical emergencies
- Workplace violence

6. Characterize the nature of identified hazards, identify interim control measures and prioritize the hazards for control

The next step is to assess and understand the hazards identified and the types of incidents that could result from worker exposure to those hazards. This information can be used to develop interim controls and prioritize hazards for permanent control.

- Evaluate each hazard by considering the severity of potential outcomes, the likelihood that an event or exposure will occur, frequency/duration of exposure and the number of workers who might be exposed.
- Use interim control measures to protect workers until more permanent solutions can be implemented.
- Prioritize the hazards so those presenting the greatest risk are addressed first.

The unit leadership has an ongoing obligation to control all serious recognized hazards and protect workers.

Conclusion

Risk is the product of hazard and exposure. Thus, risk can be reduced by controlling or eliminating the hazard or by reducing workers' exposure to hazards. An assessment of risk can help leaders to understand hazards in the context of their own workplace and prioritize them for permanent control. ■



Shorter days, fatigue, compromised vision, rush hour and impaired drivers are some of the risks we face when driving at night. These risks become especially pronounced moving into the weekend, with fatal crashes peaking on Saturday nights, according to the National Safety Council's analysis of National Highway Traffic Safety Administration (NHTSA) data.

When Daylight Saving Time ends Nov. 1, many people will find themselves spending more time driving in the dark. Depth perception, color recognition and peripheral vision can be compromised in the dark, and the glare of headlights from an oncoming vehicle can temporarily blind a driver.

Even with high-beam headlights on, visibility is limited to about 500 feet (250 feet for normal headlights), creating less time to react to something in the road, especially when driving at higher speeds.

So what should you do to combat darkness?

- Aim your headlights correctly and make sure they're clean.
- Dim your dashboard.
- Look away from oncoming lights.
- If you wear glasses, make sure they're anti-reflective.
- Clean the windshield to eliminate streaks.
- Slow down to compensate for limited visibility and reduced stopping time.

The Most Dangerous Time to Drive

NATIONAL SAFETY COUNCIL
<https://www.nsc.org>

Compromised night vision

Night vision is the ability to see well in low-light conditions. As we age, we have greater difficulty seeing at night. A 50-year-old driver may need twice as much light to see as well as a 30-year-old. At age 60 and older, driving can become even more difficult, according to the American Optometric Association (AOA). Some older drivers also may have compromised vision due to cataracts and degenerative eye diseases.

The AOA recommends older drivers:

- Have annual vision exams.
- Reduce speed.
- Take a driving course. Even experienced drivers can benefit from a refresher course, and some of the rules have probably changed.
- Minimize distractions, like talking with passengers or listening to the radio.
- Check with your doctor about side effects of prescription drugs.
- Limit driving to daytime hours if necessary.

Fatigue

A National Sleep Foundation (NSF) poll says 60 percent of adults have driven while they were tired, and another 37 percent, or 103 million people, have fallen asleep at the wheel. Of those, 13 percent say they fall asleep while driving at least once a month, and 4 percent say they have caused a crash by falling asleep while driving. The reasons are many — shift work, lack of quality sleep, long work hours, sleep disorders — and it doesn't only happen on lengthy trips.

These staggering numbers are backed up by a report by NHTSA that 100,000 police-reported crashes are a result of driver fatigue. Most crashes or near-misses happen at the times you would expect drivers to be tired: 4 to 6 a.m., midnight to 2 a.m. and 2 to 4 p.m., according to the NSF.

Drowsy driving puts everyone on the road at risk. Losing two hours of sleep has the same effect on driving as having three beers, and tired drivers are three times more likely to be in a car crash if they are fatigued. The NSF offers this advice:

- Get seven or more hours of sleep a night.
- Don't drive if you've been awake for 16 hours or more.
- Stop every two hours to rest.
- Pull over and take a nap if you're drowsy.
- Travel during times you are normally awake.

Rush hour

Evening rush hour (between 4 and 7 p.m. on weekdays) is a dangerous time to drive due to crowded roadways and drivers eager to get home after work. In winter, it's dark during rush hour, compounding an already dangerous driving situation. So how can you make it home safely during rush hour?

- Don't be an impatient driver; slow down.
- Stay in your lane and beware of drivers who dart from lane to lane.
- Even though the route may be

familiar, don't go on autopilot; stay alert.

- In unfamiliar areas, consult a map before you go and memorize your route.
- Don't touch your phone, eat, drink or do other things that are distracting.

Impaired drivers

Nearly 30 people die every day in crashes that involve a driver impaired by alcohol, according to the Centers for Disease Control and Prevention. Drivers impaired by prescription medicines and other drugs increase that number significantly. Impaired drivers are most frequently on the road after dark — particularly between the hours of midnight and 3 a.m. on weekends.

While drunk driving has declined by about one-third since 2007, the number of drivers under the influence of drugs has increased. Between 2013 and 2014, 22 percent of drivers tested positive for a drug that would cause impairment, according to a roadside survey conducted by NHTSA. The organization also found that the prevalence of THC (found in marijuana) among drivers on weekend nights increased 48 percent since 2007, from 8.6 percent of drivers to 12.6 percent. Many states have not yet updated their impaired driving laws to address this growing problem.

Conclusion

While we do only one-quarter of our driving at night, 50 percent of traffic deaths happen during those hours. It doesn't matter whether the road is familiar or not, driving at night is always more dangerous. By taking some extra precautions, we can all contribute to reducing these numbers. ■

GUIDING RIGHT

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Before deploying to Iraq, our transportation unit was understrength, so other Soldiers in the state that had an 88M military occupational specialty (transportation) were pulled from their units to head out with us. This caused some unforeseen issues. For instance, when ground guiding, these Soldiers used different hand and arm signals. At times, this could be frustrating.

When working around vehicles, a driver and ground guide must remain alert to everything surrounding them. Due to the noise level of vehicles and other equipment, they must be able to communicate effectively by using hand and arm signals. It's important everyone uses the same signals so we work more effectively as a team. The best way to accomplish this is to ensure all Soldiers are familiar with the standardized visual signals in Field Manual 21-60.

A driver must always use a ground guide when a vehicle is in a motor pool, bivouac or assembly area, or when backing up. If these areas are tight or congested, two ground guides must be used. This helps ensure the driver doesn't run into another piece of equipment, gear or, more importantly, a

Soldier. This is why it is very important that the ground guide and driver communicate effectively.

To avoid confusion, it's a good practice for the driver and ground guide to go over the hand and arm signals before they begin moving a vehicle. All commands should come from the ground guide, who must remain in the driver's sight at all times. If the driver doesn't understand what the ground guide wants him to do, he must stop immediately, get out of the vehicle and go over the hand and arm signals again. If the driver can't see the ground guide or notices he is in a dangerous position, he must stop immediately and get out of the vehicle to ensure the guide is OK.

The ground guide

must always stay at least 10 yards away from the vehicle or piece of equipment to ensure nothing will be damaged when the vehicle is in motion. He should never run or walk backward or between two vehicles. When using two ground guides, the driver and both guides must go over hand and arm signals and decide who will be the primary guide. The primary ground guide is the one from whom the driver takes his signals. If there is any confusion or one of the guides can't be seen, the driver must stop the vehicle immediately to ensure the safety of the guides.

Ground guides are an essential part of moving vehicles and heavy equipment safely. The proper use of ground guides can reduce injuries and accidents in the military. ■

FYI

Ground guides are a vehicle operator's eyes when maneuvering equipment in areas of limited visibility. Therefore, ground guiding a vehicle is one task where training and coordination between the two is paramount. To help prevent injuries to ground guides and other personnel, follow these simple steps:

- All drivers and other unit personnel will be trained to standard in the correct use of ground guides and ground-guiding operations.
- Always use ground guides when backing a vehicle and in congested areas.
- When traveling in a field environment during periods of limited visibility, ground guides will be used. Drivers will keep ground guides in view at all times.
- Ground guides will be used in bivouac and assembly areas.
- Two ground guides will be used when vision is restricted. Ground guides should never walk backward and never get between two vehicles.
- During periods of limited visibility or darkness,

equip ground guides with two suitable lights (and don't forget extra batteries, if applicable).

- Ground guides will use hand signals. Voice signals can be misunderstood or go unheard.
- Ground guides will also:
 - Keep a proper distance from the vehicle (10 yards).
 - Give signals only to the vehicle driver.
 - Stay out of the path of travel.
 - Stay in the driver's line of sight.
 - Keep to the side and front (or rear) of the vehicle (driver's side is best).
 - Clear themselves, clear the vehicle and, finally, give the command to move the vehicle.

For more information on ground-guiding procedures, see Army Techniques Publication 4-11, Army Motor Transport Operations; Training Circular 21-305-20, Manual for the Wheeled Vehicle Driver; Training Circular 21-306, Tracked Combat Vehicle Driver Training; and Field Manual 21-60, Visual Signals.





THINK BEYOND THE TARGET

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It was the day before the start of deer season in upstate New York, and we were walking the farm to check the safety of our tree stands and search for recently used trails and buck rubbings. While out, I spotted a tree stand I'd never seen before that had been set up by a new neighbor at the farm to the north. The stand was about 50 yards into the woods near a roadway entrance to a large field. I made a mental note about the stand and continued my walk. Little did I know that the stand would later reinforce an important hunting safety lesson.

The first two days of our annual deer camp were very successful. We took two bucks (a spike and a four-pointer), two button bucks and a large doe. Since we'd maxed out the buck tags, we would now only be able to fill the deer management permits, or DMPs, with does. That meant we'd have to properly identify our target before firing to ensure we didn't take another buck.

On the third day, while hunting

solo, I was walking the wooded farm trail through a wetland area to the back field. It was a quiet morning with heavy frost but no wind or rain. About 75 feet ahead, near a left bend in the roadway, there was rustling in the brush. Just then, two large deer darted from the brush and broke to the right.

Before I shot, I had to ensure these deer were does, so I hesitated. Time stood still as they leapt at least

7 feet into the air to clear the brush on the right side of the road. At the pinnacle of their jump, I could tell both were clearly does. It would be an easy shot using my Remington semi-automatic 11-87 with sabot slugs, and I knew I could get both to fill my remaining DMP tags. But now I had another problem.

The deer were in a direct line with that new tree stand I'd spotted a few days earlier. I didn't know if the

new neighbor was hunting, so I held back from firing. I didn't want to take a chance shooting upward and toward the tree stand. Two minutes later, the neighbor shot one of the does as it ran underneath him, confirming my fear that he was indeed in the stand.

When I look back on that day, I'm thankful I used my 33 years of military training and considered what was beyond my target. A poor split-second decision could have changed both of our lives forever. While I would have loved to have gotten those two deer, there will be more opportunities. ■

FYI

In an effort to reduce weapons-handling accidents, the U.S. Army Combat Readiness Center developed the Range & Weapons Safety Toolbox, available at <https://safety.army.mil/ON-DUTY/RangeandWeaponsSafetyToolbox.aspx>. Check it out today!

DID YOU KNOW?

In an effort to promote, protect and preserve hunting and shooting sports, the National Shooting Sports Foundation offers the 10 Rules of Safe Gun Handling:

1. Always keep the muzzle pointed in a safe direction.
2. Firearms should be unloaded when not actually in use.
3. Don't rely on your gun's safety.
4. Be sure of your target and what's beyond it.
5. Use correct ammunition.
6. If your gun fails to fire when the trigger is pulled, handle with care!
7. Always wear eye and ear protection when shooting.
8. Be sure the barrel is clear of obstructions before shooting.
9. Don't alter or modify your gun, and have guns serviced regularly.
10. Learn the mechanical and handling characteristics of the firearm you are using.

FOURTH-QUARTER FY20 MISHAP SUMMARIES

ON-DUTY FATAL MISHAPS

AVIATION

■ A Sergeant and Staff Sergeant assigned to Fort Campbell, Kentucky, died in an aircraft mishap 27 August 2020 on San Clemente Island, California, at 1730 local.

GMV

■ A Specialist assigned to Fort Drum, New York, died in a government motor vehicle mishap 3 July 2020 in Farah, Afghanistan, at 1830 local. The Soldier was operating an M-RZR on a forward operating base when the vehicle overturned and pinned him under the roll bar. The Soldier was transported to a medical facility, where he was pronounced dead.

■ A Sergeant deployed in support of Operation Inherent Resolve died in a government motor vehicle mishap 21 July 2020 in Syria at 1716 local. The Soldier was performing gunner duties in an M-ATV when the vehicle left the main supply route and overturned. All four crewmembers were evacuated to the local troop medical clinic, where the gunner later died. The three other Soldiers were treated for non-life-threatening injuries.

■ A Sergeant assigned to Fort Bliss, Texas, died in a government motor vehicle mishap 28 August 2020 on the installation at 1934 local. The Soldier was the truck commander in an M1120 HEMTT

Load Handling System (LHS) that rear-ended another LHS during convoy operations. He was pronounced dead at the scene.

MILITARY PARACHUTING

■ A Private assigned to Fort Bragg, North Carolina, died in a military parachuting mishap 9 September 2020 on Fort Stewart, Georgia, at 1934 local. While conducting a tactical combat equipment night jump, the Soldier experienced a complete malfunction (cigarette roll) of a T-11 main parachute. The Soldier was pronounced dead at the scene.

OFF-DUTY FATAL MISHAPS

PMV-4

■ A Sergeant assigned to Fort Knox, Kentucky, died in a PMV-4 mishap 16 August 2020 in Elizabethtown, Kentucky, at 1930 local. The Soldier was traveling on the Bluegrass Parkway when he attempted to make a U-turn and was struck by an oncoming vehicle.

■ A Chief Warrant Officer 3 assigned to Fort Wainwright, Alaska, died in a PMV-4 mishap 5 September 2020 in Fairbanks, Alaska, at 0330 local. The Soldier was driving his PMV-4 with a civilian passenger when he struck

the curb. The impact launched the vehicle 25 feet before striking the ground and hitting a light standard. The vehicle continued for another 500 feet across the road, over a median, and down an embankment and into a water-filled slough. Another motorist that witnessed the mishap stopped and removed the occupants from the vehicle and began administering CPR on the Soldier. The Soldier was pronounced dead at the scene. The civilian passenger was conscious and sustained non-fatal injuries.

■ A Staff Sergeant assigned to Joint Base Lewis-McChord, Washington, died in a PMV-4 mishap 6 September 2020 in Lakewood, Washington, at 2200 local. The Soldier was driving his vehicle when he struck a light pole. He was transported to the local medical center for surgery and died the following morning.

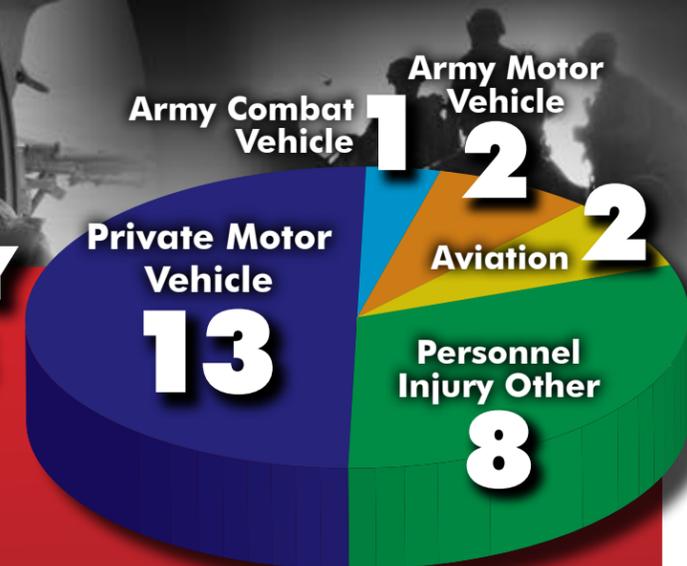
PMV-2

■ A Sergeant assigned to Fort Carson, Colorado, died in a PMV-2 mishap 2 August 2020 in Colorado Springs, Colorado, at 0100 local. The Soldier was riding another person's motorcycle

4TH QUARTER FY20 ARMY MILITARY MISHAP FATALITIES

TOTAL QTD: 26

as of 1 October 2020



Category	FY19 EOY	1QTR FY20	2QTR FY20	3QTR FY20	4QTR FY20	TOTAL YTD
Army Combat Vehicle	5	4	2	0	1	7
Army Motor Vehicle	8	1	1	0	2	4
Army Other Vehicle	2	0	0	0	0	0
Aviation (AVN)	2	5	0	0	2	7
Fire	0	0	0	0	0	0
Personnel Injury Other (PIO)	28	2	2	7	8	19
Private Motor Vehicle (PMV)	65	12	14	14	13	53
Weapons & Explosives (WPNS & EXPL)	7	1	2	1	0	4
Total	117	25	21	22	26	94

on the highway when he lost control. Reportedly, he was speeding and crossed the median before crashing. The Soldier was not wearing a helmet, was not licensed and had not completed the required Motorcycle Safety Foundation training courses.

■ A Sergeant assigned to St. Thomas, U.S. Virgin Islands, died in a PMV-2 mishap 26 August 2020 in St. Thomas. A civilian notified emergency personnel of a body in the bushes next to a motorcycle. The initial investigation suggests the Soldier was riding on the highway when he collided with a guardrail.

■ A Sergeant assigned to Fort Bragg, North Carolina, died in a PMV-2 mishap 4 September 2020 in Fayetteville, North Carolina, at

2330 local. The Soldier was riding with a group of other Soldiers when he attempted to traverse a corner at approximately 70-80 mph, causing his motorcycle to strike an electrical box on the side of the road. He was pronounced dead shortly after arriving at the local hospital.

■ A Staff Sergeant assigned to Fort Carson, Colorado, died in a PMV-2 mishap 17 September 2020 in Divide, Colorado, at 1806 local. The Soldier was operating his motorcycle with another civilian rider on the road when he lost control and struck a wooden utility pole. He was pronounced dead at the scene. According to the civilian rider, the Soldier was wearing all required personal protective equipment. The Soldier also

completed all required Motorcycle Safety Foundation courses.

PEDESTRIAN

■ A Specialist assigned to Fort Hood, Texas, died in a pedestrian mishap 12 August 2020 in Killeen, Texas, at 2150 local. The Soldier was traveling with two other Soldiers in a private motor vehicle on a multi-lane highway when they saw a serious automobile accident. The Soldiers stopped to render assistance. One Soldier attempted to direct traffic on an unlit, curved highway with vehicles traveling at high rates of speed when he was struck by a vehicle. Local emergency management services and fire department personnel responded to the accident and pronounced the Soldier dead at the scene.

FOURTH-QUARTER FY20 MISHAP SUMMARIES

■ A Lieutenant Colonel assigned to Naples, Italy, died in a pedestrian mishap 22 August 2020 in Rome, Italy, at 2040 local. While walking to meet his family for dinner, the Soldier was struck and killed by a civilian vehicle.

■ A Sergeant First Class assigned to Fort Bragg, North Carolina, died in a pedestrian mishap 14 September 2020 at Naval Air Station-Key West, Florida, at 1515 local. While outside the Navy Exchange, the Soldier was struck and killed by a vehicle.

SPORTS, RECREATION AND PHYSICAL TRAINING

■ A Private assigned to Fort Hood, Texas, died in an off-duty water-related mishap 17 July 2020 at Stillhouse Hollow Lake in Bell County, Texas, at 0630 local. On 16 July at 0630, the Soldier did not report for accountability formation. His NCOIC checked with other Soldiers and immediate family members, but they had not heard from him. Boaters discovered the Soldier's body the following morning.

■ A 36-year-old Active Guard and Reserve Sergeant assigned to the Texas Army National Guard died during a training event conducted on 13 August 2020 at Fort Hood, Texas, at 1645 local. The Soldier was attending the 136th Regional

Training Institute 11B Advanced Leader Course and participating in a land navigation course evaluation. The Soldier failed to return to the start point and a search was initiated with cadre and then with range control. The Soldier was found approximately four hours later and transported to the nearest medical facility, where he was pronounced dead. Weather conditions at Fort Hood at the time of the mishap were extremely hot with a high of 100 F and 33% humidity.

■ A Specialist assigned to Joint Base Lewis-McChord, Washington, died in an off-duty water-related mishap 15 August 2020 at a lake in the Rainier National Park in Ashford, Washington, at 1900 local. The Soldier was swimming with a group of fellow Soldiers and friends when he started having difficulties. He was unable to reach the shoreline, went under the water and did not resurface. The National Park Service recovered the Soldier's body a couple of days later.

■ A Private assigned to Fort Hood, Texas, died in a training-related mishap 28 August 2020 on the installation at 0700 local. During the individual release portion of a physical readiness training platoon run, the Soldier collapsed and lost consciousness. He remained unresponsive and had a core

temperature of 102 F as nearby Soldiers assessed his condition. The Soldier was taken to the installation medical center and placed in a medically induced coma. He was later pronounced dead by the attending doctor and removed from life support.

■ A Captain assigned to Joint Base Lewis-McChord, Washington, died in an off-duty hiking mishap 4 September 2020 in Big Heart Lake, Washington, at 1230 local. The Soldier was hiking with a group of other Soldiers when he slipped on loose rocks and tumbled down a slope, striking several other rocks on the way toward a lake below. He did not resurface. The Soldier's body was recovered the following day.

■ A Sergeant assigned to Vicenza, Italy, died in an off-duty hiking mishap 19 September 2020 in Valli del Pasubio, Italy. The Soldier was hiking on the Road of 52 Tunnels trail with another Soldier when he stopped to pose for a picture and fell approximately 300 meters through steep and rocky terrain. Italian medical personnel made multiple attempts in difficult terrain to retrieve the Soldier before finally evacuating him to a local hospital. While en route, the on-board physician pronounced the Soldier dead.




MISHAP CLASSIFICATION CHART

Did the mishap result in death?	YES	→	Class A Mishap
Did the mishap result in permanent total disability?	YES		
Did mishap result in damage equal to or greater than \$2.5 million?	YES		
Did the mishap result in a destroyed aircraft? (excluding UAS Groups 1, 2, or 3)	YES		
Did the mishap result in permanent partial disability?	YES	→	Class B Mishap
Did the mishap result in hospitalization for inpatient care of three or more individuals? (not including observation or diagnostic care)	YES		
Did the mishap result in damage equal to or greater than \$600,000?	YES		
Did the mishap result in a nonfatal injury or occupational illness resulting in one or more days away from work or training beyond the day or shift on which it occurred?	YES	→	Class C Mishap
Did the mishap result in damage equal to or greater than \$60,000?	YES		
Did the mishap result in restricted work, transfer to another job, treatment beyond first aid, needle stick injury, and cuts from sharps contaminated from another person's blood or other potentially infectious material, medical removal under medical surveillance requirements, work related tuberculosis, or occupational hearing loss?	YES	→	Class D Mishap
Did the mishap result in damage equal to or greater than \$25,000?	YES		
Did the mishap result in property damage of \$5,000 or more but less than \$25,000?	YES	→	Class E Mishap
Did the mishap result in damage to the aircraft turbine engine because of unavoidable FOD? (does not include APU)	YES		
			Class F Mishap

Class A Mishap

1. Immediately notify the USACRC
 - USACRC DSN: 558-2660 / 3410
 - USACRC COMM: 334-255-2660 / 3410
 - USACRC SDO: 334-202-1580
2. Civilian workforce fatality: Notify OSHA within eight hours
 - OSHA 24-hour hotline: 800-321-6742
 - <https://www.osha.gov/report.html>
3. Provide final report to USACRC; on duty mishaps in 90 days, off duty mishaps in 30 days.

Class B Mishap

1. Immediately notify the USACRC
 - USACRC DSN: 558-2660 / 3410
 - USACRC COMM: 334-255-2660 / 3410
 - USACRC SDO: 334-202-1580
2. Civilian workforce in-patient hospitalization, amputation, or eye loss: Notify OSHA within 24 hours
 - OSHA 24-hour hotline: 800-321-6742
 - <https://www.osha.gov/report.html>
3. Provide final report to USACRC; on duty mishaps in 90 days, off duty mishaps in 30 days

Class C Mishap

1. Aviation Class C: Immediately notify the USACRC
 - USACRC DSN: 558-2660 / 3410
 - USACRC COMM: 334-255-2660 / 3410
 - USACRC SDO: 334-202-1580
2. Ground Class C: USACRC notification is not required
3. Provide final report to USACRC; on duty mishaps in 90 days, off duty mishaps in 30 days

Class D Mishap

1. USACRC notification is not required
2. Provide the final report to the USACRC within 30 days

Class E Mishap

1. USACRC notification is not required
2. Provide the final report to the USACRC within 30 days

Class F Mishap

1. USACRC notification is not required
2. Provide the final report to the USACRC within 30 days






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