



USACRC WEB-BASED TOOLS AND INITIATIVES

The U.S. Army Combat Readiness Center has developed multiple tools to provide leaders information on risk mitigation, all available at https://safety. army.mil, including the following:

- Army Readiness Assessment Program a web-based tool that provides battalion or equivalent commanders with data on their formations' readiness posture by sampling unit safety climate and culture in five key areas: process auditing, reward systems, quality control, risk management, and command and control.
- Army Risk Management Information System the central repository for all Army mishap data (Class A-D ground, on and off duty; Class A-E aviation). RMIS is designed to give leaders, safety officers and other personnel access to both current and archived mishap reports, with a goal of preventing similar incidents within their formations. Among other functionalities, users may search RMIS for specific mishaps by case number; conduct searches for a given timeframe or accident class; and obtain risk and hazard reports broken down by age, grade, equipment and additional variables. All data retrieved from RMIS is classified For Official Use Only and limited in use to accident prevention.
- USACRC Lessons Learned one-page mishap investigation summaries produced for accident prevention purposes. Summaries contain information protected by DODI 6055.07 under safety privilege and are available only to CAC holders within the .mil network.
- **Ground Risk Assessment Tool** a mission planning tool developed to augment the military decision-making process. Consisting of five integral parts, it assists users in identifying potential hazards and controls for specified ground missions or activities, both on and off duty.
- Off-Duty Safety Awareness Presentation a highly informative safety presentation containing statistics, contributing factors and other relevant information regarding off-duty mishaps.

Developed for use at battalion level and below, the presentation comes complete with embedded videos and speaker notes that may be used as is or modified to reflect unit-specific mishap trends.

- Preliminary Loss Reports short synopses of recent Army mishaps resulting in Soldier or civilian employee losses that alert commanders, leaders and safety professionals to circumstances affecting readiness. PLRs provide actionable knowledge and real-time information regarding accidental fatalities, both of which are critical in prevention through risk management.
- Safety Campaigns a monthly focus on both seasonal and non-seasonal risk management products and tools. Each monthly topic includes supporting videos, graphics and posters, articles and external links for additional resources.
- Risk Management Magazine the official safety magazine of the U.S. Army, published online quarterly. In addition to the online version, the USACRC releases a weekly RM newsletter highlighting a variety of safety articles, posters and videos, seasonal safety campaigns and USACRC tools and programs.
- Flightfax an aviation safety publication published online monthly. It provides leaders a snapshot of Army aviation hazards through analyses of mishaps within the last 30 to 60 days, near-term mishaps, aviation safety issues and historical context via a "blast from the past" feature.



OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY RISK MANAGEMENT

LEADERS SOLDIERS CIVILIANS FAMILIES

SUMMER 2018

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Mission Statement:

To assist commanders with loss prevention as we deploy our Soldiers and Civilians to the most dangerous places on earth.





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READINESS THROUGH SALLEY

s the newly assigned commanding general of the U.S. Army Combat Readiness Center and director of Army Safety, I want to take the opportunity to thank you for what you do each and every day to keep our Army strong, capable and ready.

Our outstanding men and women who wear the Army uniform, backed by a professional team of Department of the Army Civilians, are the foundation of our Army, which is without question the finest ground force in world history. I am proud to serve and honored to lead the effort in preventing loss and preserving our Army's readiness.

The Army safety and occupational health community has worked feverishly to drive down mishaps over the past decade, and I'm fortunate to be able to work with this committed group of professionals who have dedicated themselves to such a noble mission.

I would like to draw your attention to a loss prevention tool that is near and dear to me as a former commander — the Army Readiness Assessment Program. ARAP is one of the most powerful tools commanders have at their disposal to aid them and their organizations in identifying risk factors, perceptions and attitudes in their formations so they can better focus their loss prevention efforts.

In fact, ARAP is the closest thing commanders have to a crystal ball that gives them insights into their safety programs. The interactive tool provides commanders at brigade and battalion

level with actionable information based on anonymous feedback from their Soldiers. With more than 2.6 million surveys completed since the program's inception, we know battalions that score in the lower 50 percent of ARAP are responsible for 75 percent of the Army's Class A mishaps and fatalities. That is an incredible insight. Yet, we have some units, across all components, that have either not registered for ARAP within the last three years or have never registered.

If you are a commander for a battalion or battalion-equivalent organization, make sure you are registered. For new command teams, the Army requires you take the survey within the first 90 days. If you are part of a brigade command team, know the status of the battalions in your formation and how they score. ARAP is a small investment that provides commanders with "leading indicators" of potential hazards and mishaps before they happen.

I look forward to the weeks and months ahead, as well as the opportunity to meet our Army's leaders, Soldiers and SOH professionals. Your observations, insights and perspectives are important to me as we move into the future.

Thank you for all your hard work, commitment and devotion.

Readiness Through Safety

Timothy J. DaughertyBrigadier General, U.S. Army
Commanding



The U.S. Army Combat Readiness Center annually organizes a weeklong safety summit to equip safety professionals at all levels with pertinent skills and knowledge to advise their commanders.

"I would like to congratulate every safety professional here, and in the Army, for what you do," Coleman said. "We've had an incredible decade of performance, and we need to continue down the pathway of creating a culture of safety that allows us to get better and not be content, but rather be committed to the mission."

Coleman illustrated parallels of safety between his civilian business, Coleman Worldwide Moving, and the Army, stressing the importance of cultivating an organization-wide safety culture.

"I'm responsible for a significant fleet of transport trucks, which can potentially cause significant destruction if involved in an accident," said Coleman. "So from my perspective as a business leader, safety is all about culture. It's ingrained in all facets of our business. It's not something that we do and it's not a program or initiative, but it's ingrained in our DNA."

Coleman stressed the importance of collaboration and how the summit is an opportune venue to promote and facilitate coaching, mentorship, peer-to-peer interaction and and find better, more efficient ways to create a safety culture.

"This is a very exciting time in the U.S. Army, in the ability that we have to make change, not only in readiness but what we're doing in modernization. I'm very proud to be a part of that effort."

Coleman left audience members with a challenge.

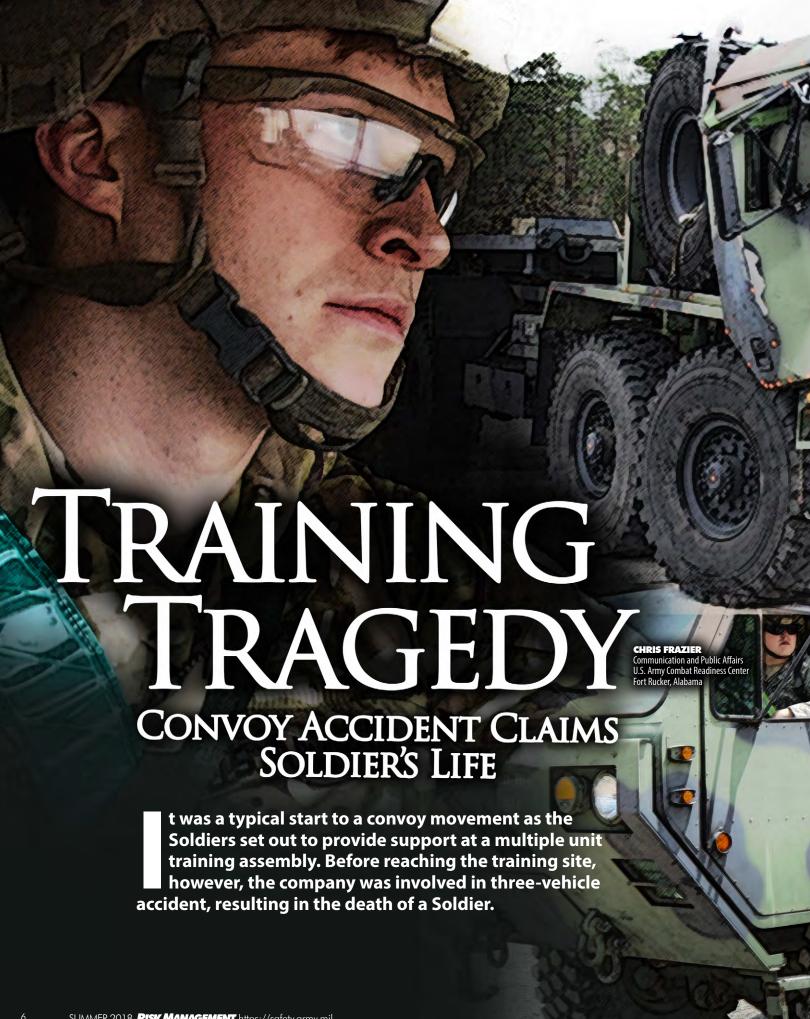
"DON'T BE CONTENT. RATHER, BE COMMITTED IN WHAT YOU DO IN SUSTAINING OUR ARMY'S READINESS."

information sharing among members of the Army Safety community.

"We need to simplify what we do in a challenging environment. I encourage you, as emerging leaders, to collaborate," he said. "We have to work together and share best practices in these types of events. It's a great opportunity to share initiatives and ideas as we innovate

"Do not be content in what you do and do not rest on your laurels," he said."Given the successful 10-year safety run our Army had, it's easy at some point to be content.

"Don't be content. Rather, be committed in what you do in sustaining our Army's readiness."





Sequence of events

Preparations for the movement began about a week prior to the training assembly, with the assignment of a convoy commander and identifying drivers and truck commanders. Once at the training site, the company would provide Class I, Class III, Class V and maintenance support for squad lane training, as well as conduct scheduled maintenance on selected vehicles and limited driver training. To accomplish the mission, the company planned to convoy 13 vehicles the 167 miles to the training location. The remainder of the company would travel by commercial bus.

On the morning of the movement, the Soldiers arrived to conduct preventive maintenance checks and services on their vehicles and have their military driver licenses verified. One assigned driver did not have a military license, however, so the company readiness NCO instructed the TC to drive the vehicle. Following PMCS, the assistant convoy commander staged the vehicles in preparation for the movement.

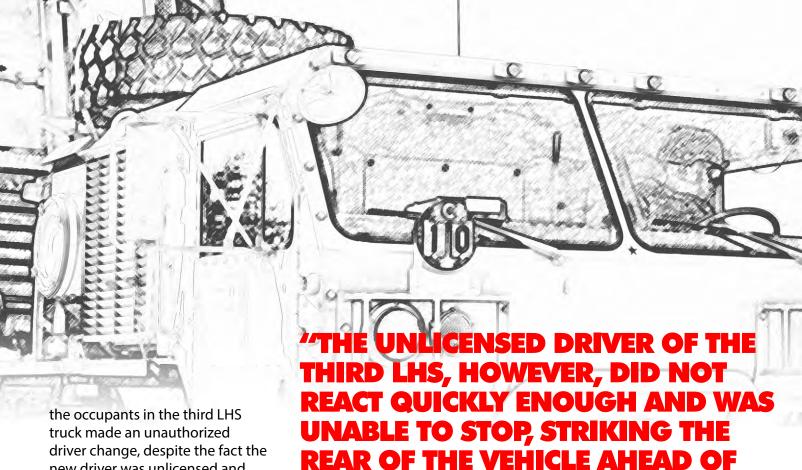
Prior to departure, the convoy commander provided the safety briefing. The briefed vehicle speed was 55 mph, with a catch-up speed of 60 mph. He also instructed drivers to maintain a 50- to 100-meter following distance between vehicles. The convoy commander

"UNBEKNOWNST TO THE CONVOY COMMANDER, THE OCCUPANTS IN THE THIRD LHS TRUCK MADE AN UNAUTHORIZED DRIVER CHANGE, DESPITE THE FACT THE NEW DRIVER WAS UNLICENSED AND INEXPERIENCED IN THE M1120."

then distributed strip maps to each TC, which included the vehicle breakdown plan and a number for a group chat using a smartphone app. This would allow the TCs to maintain communication with the convoy commander.

The convoy departed at 0830 with an M1083-series truck towing a Standard Automotive Tool Set trailer leading the way. Immediately following the lead vehicle were three M1120 Load Handling System trucks.

The first two hours of the movement were uneventful as the company made a planned stop at a roadway travel center. There, the Soldiers topped off their vehicles with fuel and were given time to eat. Unbeknownst to the convoy commander,



HIM AT 50-55 MPH."

new driver was unlicensed and inexperienced in the M1120.

About 90 miles from the fuel stop, the convoy encountered

a traffic signal at an intersection. As the first LHS approached, the traffic light changed from green to yellow, so the driver brought the truck to a stop. The second LHS operator also stopped. The unlicensed driver of the third LHS, however, did not react quickly enough and was unable to stop, striking the rear of the vehicle ahead of him at 50-55 mph. The impact pushed the second vehicle into the M149A1 water trailer towed by the first LHS.

The Soldiers in the first and second vehicles immediately dismounted to check on the driver and TC in the third LHS. Another TC called 911 and sent out a group text notifying the chain of command of the crash. When members of the convoy, including combat lifesavers, arrived at the third vehicle, they found the driver dead and the TC unconscious and trapped in the truck's crushed cab. Local firefighters used an extrication tool to free the TC, who was then transported to an area hospital for treatment for an ankle injury. Four Soldiers in the other two vehicles suffered minor injuries. In addition, an LHS and water trailer were destroyed, and two other LHS trucks were damaged.

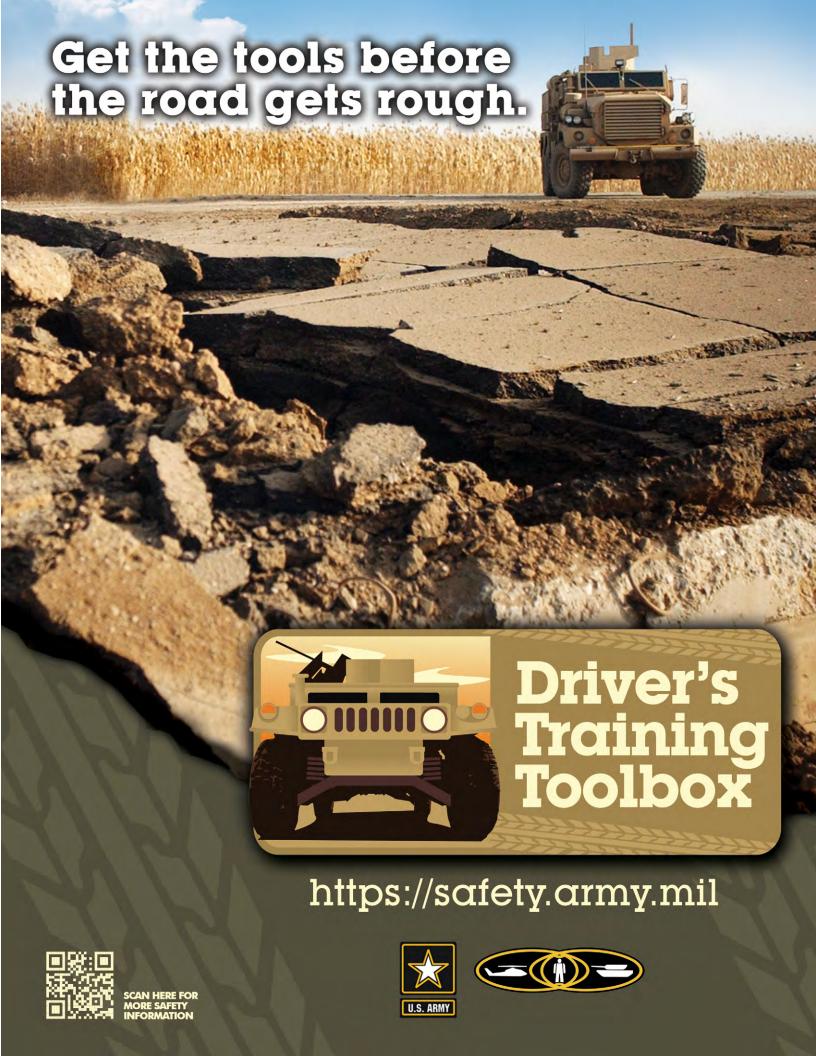
What can the Army do?

Leaders must ensure TCs fully understand

their responsibilities in assisting drivers with the safe operations of a vehicle. In this incident, a TC allowed an unlicensed and inexperienced Soldier drive an M1120 LHS.

- Leaders must ensure drivers have the required experience to operate their military vehicles in dense traffic conditions. They must also ensure personnel assigned to drive do not let anyone else operate the vehicle unless directed by the convoy commander.
- Leaders must develop and disseminate a standard operating procedure for convoy movements.
- Leaders must incorporate the five steps of risk management into all aspects of the military decision-making process and future convoy movements.

The Army relies on convoy movements to accomplish its missions in both training and combat. While on-duty vehicle fatalities have declined over the past decade, leaders and Soldiers must remain vigilant regarding safe driving. Driver's training, leader engagement and individual responsibility all help keep complacency at bay and ensure Soldiers carry out their vehicle missions to standard.



rmy Aviation must change its training approach to a terrain flight mindset to prepare for large-scale combat operations against near-peer adversaries that pose complex and lethal multi-domain air and area denial threats.

Training for Contingencies at Terrain Flight COL. CHRISTOPHER WATERS Deputy Commanding Officer U.S. Army Combat Readiness Center Fort Rucker, Alabama

Retooling the Force for Large-Scale Ground Combat Operations

Changing Operational Landscape

The Army is preparing for the most complex combat environment we may face across the range of military operations on the conflict continuum in the coming years, reflected in the newly revised Field Manual 3-0. All of these potential LSCO conflicts entail first world adversaries with near-peer or better threat capabilities. For Army Aviation, the anti-access, area denial capabilities that these near-peer threats pose – characterized by a multi-domain, contested environment consisting of early warning, cyber, space, electronic warfare, integrated air defense systems, and sophisticated reconnaissance and surveillance capability, tied to lethal and precision long range fires – will drive our

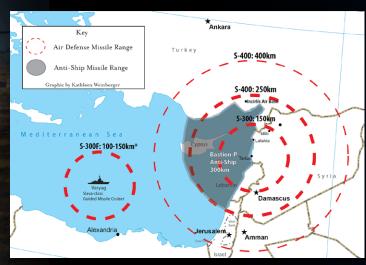
rotary wing forces much closer to the ground. We must now train to operate at terrain flight mission profiles that we have predominantly eschewed during the limited contingency operations of the last 16 years. The prospect of LSCO against a peer competitive threat dictates that we retool our training approach. Foremost, we must focus our crew training on contingencies and emergencies that require immediate crew recognition and action because, at terrain flight profiles, there simply isn't the decision time or maneuver space to react like there is at permissive altitudes.

With this retooling, our aircrews must demonstrate in training scenarios the ability to operate proficiently in high-workload situations. Part of this training should be

incorporating and rehearsing during the crew mission briefing the crew actions and crew coordination necessary during unplanned events (i.e., emergency procedures, contingencies) and during critical points of flight during the mission. Incorporation of contingencies and emergency procedures into training scenarios at the highest workload demands within the mission profile will inform aircrews on where they are proficient and where they require additional emphasis in training.

Old Ways Become New Again

The skill sets and operational environment in which Army Aviation has become proficient in the COIN fight now require the training paradigm to shift back to what some refer to as the Cold War scenario, except in the 21st Century, near-peer adversaries have taken a quantum leap forward in their ability to contest the environment and deny area access. Our desire to operate at altitude



with air superiority and little fear of surface-to-air threats won't survive RSOI at port in a contested LSCO fight. Likewise, the techniques we have trained and ingrained through rigorous situational and emergency procedures training for COIN operations must now transition to the doctrinal tactics and techniques necessary to survive in a high threat environment. And as seen over the last several months in recent mishaps that occurred while training in decisive action, near-peer scenarios, we must focus procedural response to emergencies and contingencies at terrain flight mission profiles.

The flight environment during operations at terrain flight altitudes is very unforgiving; there is little margin for error. Reaction time and maneuver space is severely limited when operating near the surface at slow airspeeds and at the high gross

"THE FLIGHT ENVIRONMENT DURING OPERATIONS AT TERRAIN FLIGHT ALTITUDES IS VERY UNFORGIVING; THERE IS LITTLE MARGIN FOR ERROR."

weights typically associated with combat operations. When tough environmental conditions, particularly degraded visual environments, are added to an already higher-risk profile, relatively benign emergencies can overwhelm an aircrew if they have not thought through and rehearsed those scenarios.

The following is a good example of a mishap that reinforces the need to increase our intensity, focus, and repetition of emergency procedures training. While transitioning into a battle position in the desert at night in difficult terrain at terrain flight altitude, the crew of an attack aircraft failed to respond correctly to a night vision sensor failure. The pilot on the controls who experienced the NVS failure did not respond according to the procedure, and he transferred the controls to the co-pilot without announcing the emergency. The co-pilot gunner, whose attention was inside the cockpit during this critical portion of maneuver at the time of the transfer, was unaware of the emergency situation. The result was an aircraft impacting the ground and two fatalities.

Maximize Situational Training

We may enter LSCO at a position of disadvantage and geographical location not of our choosing, but we can train for known A2AD and IADS threats in the contested environments and possible geographic locations and environmental conditions in which we expect to fight. Tough, realistic training tailored to these conditions and mission profiles, with progressive and iterative repetitions executed to standard, is the formula for success. Commanders and instructor pilots must focus on rigorous situational training, maximizing simulator use to gain valuable repetitions rehearsing emergency procedures and response to contingencies, and they must incorporate these actions into crew and mission briefings and rehearsals.

Situational training in the most demanding modes of flight and environmental conditions with repetitive emergency procedures and crew coordination rehearsals will provide the commander with the trained and ready aircrews necessary to deploy, fight, survive, and win against the peer or near-peer threat.

DROWNING dosen't look like DROWNING

MARIO VITTONE Norfolk, Virginia

Ihe new captain jumped from the deck, fully dressed, and sprinted through the water. A former lifeguard, he kept his eyes on his victim as he headed straight for the couple swimming between their anchored Sportfisher and the shore. "I think he thinks you're drowning," the husband said to his wife. They were splashing each other and she had screamed, but now they were just standing on the sandbar in neckdeep water. "We're fine. What is he doing?" she asked, a little annoyed. "We're fine!" the husband yelled, waving him off, but the captain kept swimming hard. "Move!" the captain barked as he hurried past the stunned owners. Directly behind them, not 10 feet away, their 9-year-old daughter was drowning. Safely above the surface in the arms of the captain, she burst into tears, "Daddy!"

How did this captain know — from 50 feet away — what the father couldn't recognize from just 10? Drowning is not the violent, splashing call for help most people expect. The captain was trained by experts to recognize drowning and had years of experience. The father, on the other hand, learned what drowning looks like by watching television. If you spend time on or near the water (hint, that's all of us) then you should make sure you and your friends know what to look for when people enter the water. Until she cried a tearful, "Daddy," the girl hadn't made a sound.

As a former Coast Guard rescue swimmer, I wasn't surprised at all by this story. Drowning is almost always a deceptively quiet event. The waving, splashing and yelling that dramatic conditioning (read: television) prepares us to look for is rarely seen in real life.

The Instinctive Drowning Response — named by Francesco A. Pia, Ph.D. is what people do to avoid actual or perceived suffocation in the water. And it does not look like most people would expect. There is very little splashing, no waving and no yelling or calls for help of any kind. To get an idea of just how guiet and undramatic from the surface drowning can be, consider this: It is the No. 2 cause of accidental death in children ages 15 and under (just behind vehicle accidents). What's more, of the approximately 750 children who will drown next year, about 375 of them will do so within 25 yards of a parent or other adult. In some of those drownings, the adult will actually watch them do it, having no idea it was happening. Drowning does not look like drowning.

Pia, in an article in the Coast Guard's

"On Scene" magazine, described the Instinctive Drowning Response like this:

- 1. Except in rare circumstances, drowning people are physiologically unable to call out for help. The respiratory system was designed for breathing. Speech is the secondary or overlaid function. Breathing must be fulfilled before speech occurs.
- 2. Drowning people's mouths alternately sink below and reappear above the surface of the water. The mouths of drowning people are not above the surface of the water long enough for them to exhale, inhale and call out for help. When drowning people's mouths are above the surface, they exhale and inhale quickly as their mouths start to sink below the surface of the water.
- **3.** Drowning people cannot wave for help. Nature instinctively forces them to extend their arms laterally and press down on the water's surface. Pressing down on the surface of the water permits drowning people to leverage their bodies so they can lift their mouths out of the water to breathe.
- **4.** Throughout the Instinctive Drowning Response, drowning people cannot voluntarily control their arm

movements. Physiologically, drowning people who are struggling on the surface of the water cannot stop drowning and perform voluntary movements such as waving for help, moving toward a rescuer or reaching out for a piece of rescue equipment.

5. From beginning to end of the Instinctive Drowning Response, people's bodies remain upright in the water with no evidence of a supporting kick. Unless rescued by a trained lifeguard, these drowning people can only struggle on the surface of the water for 20 to 60 seconds before submersion occurs.

However, this doesn't mean that a person who is yelling for help and thrashing isn't in real trouble. They are experiencing aquatic distress. Not always present before the Instinctive Drowning Response, aquatic distress doesn't last long. But unlike true drowning, these victims can still

assist in their own rescue by grabbing lifelines, throw rings, etc.

Look for these other signs of drowning when persons are in the water:

- Head low in the water, mouth at water level
- Head tilted back with mouth open
- Eyes glassy and empty, unable to focus
- Eyes closed
- Hair over forehead or eyes
- · Not using legs, vertical
- · Hyperventilating or gasping
- Trying to swim in a particular direction but not making headway
- Trying to roll over on their back
- Appear to be climbing an invisible ladder

So if someone falls overboard and everything looks OK, don't be too sure. Sometimes the most common indication that someone is drowning is that they don't look like they're drowning. They may just look like they are treading water and looking up at the deck. One way to be sure is to ask them, "Are you all right?" If they can answer at all, they are probably OK. If they return a blank stare, you may have less than 30 seconds to get to them to safety. And parents, children playing in the water make noise. When they get guiet, you need to get to them and find out why.

"THERE IS VERY
LITTLE SPLASHING,
NO WAVING AND NO
YELLING OR CALLS FOR
HELP OF ANY KIND."

A TRAGIC FUNCTION COMMAND SGT. MAJ. RONALD OROSZ U.S. Army North Fort Sam Houston, Texas

Author's note: The objective of this story is to stress weapons safety. The unintentional discharge incident I discuss happened in my unit, and the circumstances involved contributed to the tragic loss of a Soldier.

n 2008, I participated in Operation Enduring Freedom. Five of my units were concentrated in Regional Command-East and one battalion was located in southern Afghanistan, conducting combat operations near Kandahar. The threat, both inside and outside the wire, required Soldiers to have a magazine of ammunition in their weapon at all times.



Even then, restrictions apply when Soldiers can and can't have a magazine with ammunition in their weapon. Unfortunately, deployed Soldiers sometimes get complacent and forget they have a magazine with ammunition in their weapon. That mistake can have a disastrous outcome.

In one particular unit, a group of Soldiers completed their mission for the day, so the next order of business was weapons maintenance, which is imperative when conducting combat operations. A clean, functioning weapon ensures combat readiness. Cleaning and maintaining weapons is a deliberate process that requires planning, focus, skill and inspections.

The Soldiers gathered inside a tent (their living area) and disassembled their weapons on cots. As they cleaned their weapon's parts, they chatted about the day's events, reflected on home, snacked and watched movies.

An experienced Soldier at one end of the tent finished cleaning his weapon and reassembled it. The final step after assembling the M4 carbine is to conduct a function check to ensure it works properly. A function check for the M4 carbine is conducted without ammunition or the magazine. The function check will confirm the mechanical operation of the weapon through a series of selector

lever movements and trigger squeezes. This is a skill level 1 task, and all Soldiers should be familiar with this procedure.

In this particular case, the skilled and experienced Soldier put a loaded magazine into the weapon's magazine well and started his function check. (Right now, you should be yelling, "Stop!") This was not the correct way to perform a function check with an M4 carbine. The other Soldiers

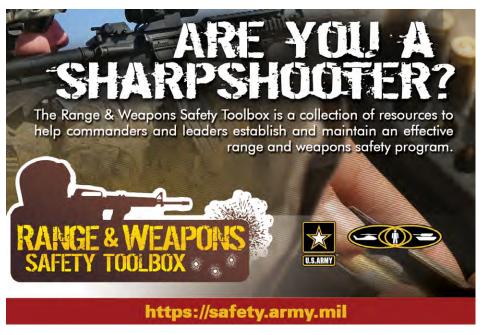
"ALWAYS ASSUME A WEAPON IS LOADED WHEN RECEIVING IT FROM ANOTHER PERSON AND INSPECT IT TO ENSURE IT IS CLEAR OF AMMUNITION."

in the tent were unaware this tragedy was unfolding as weapons cleaning progressed, conversations continued and movie plots developed. The experienced Soldier attempted a function check with a loaded magazine in the weapon and discharged three rounds into a Soldier who was napping on a nearby cot. Tragically, the Soldier died from his wounds, and the Soldier that pulled the trigger was later punished according to the Uniform Code of Military Justice.

So what went wrong? The first step in weapon maintenance is to ensure the weapon is free and clear of all ammunition and therefore safe. For an M4 carbine, this can be accomplished by pointing the weapon into a clearing barrel or safe direction, removing the magazine, locking the bolt to the rear, visually inspecting the chamber and double-checking the magazine well (as well as showing your battle buddy) and returning the bolt to the forward

position. The weapon will not discharge because the chamber was inspected and free and clear of ammunition. The weapon is now safe to disassemble and clean.

Weapons maintenance should be treated as a scheduled event and supervised. Watching movies or other distractions are contributing factors to inattentiveness and can cause accidents. Ammunition should be stored separately from the cleaning area but accessible when in a combat environment. Weapons should be treated as loaded at all times, and muzzle awareness is imperative. Keep fingers off triggers until time to engage a target. Always assume a weapon is loaded when receiving it from another person and inspect it to ensure it is clear of ammunition. Finally, never conduct a function check of an M4 with a magazine in the weapon! Engaged leaders can make a difference and prevent tragedies like this from happening again. ■





SGT. DALE SMITH

When our first palletized loading systems showed up, they dropped off a conex next to us. A second PLS then showed up and, while we were outside taking a break, we could hear it backing up. Suddenly, we heard Soldiers yelling for the PLS to stop. My only thought was, "This can't be good."

The second PLS was backing up to the first conex, trying to get it as close to it as possible. The NCO that was ground guiding it was directly behind the PLS instead of off to the side. Since the driver couldn't see her, he kept backing up and pinned the NCO between the pintle hook and conex. He didn't know he had pinned her and kept backing up. Finally, someone got his attention and yelled for him to pull forward. Once he did, several of our NCOs raced in to check on the ground guide. She suffered serious injuries and was medically evacuated out of theater.

For me, this situation was hard because, as Soldiers, we know the right way to do our jobs. On the flip side, we also know the wrong way. Sometimes we take shortcuts because we either want to get the mission completed quickly so we can move on to another task or so we can get home.

I learned some non-negotiable ground guiding procedures that terrible day. It's my hope that you'll heed my advice and won't have to watch a comrade be nearly crushed to death.

 Always have two ground guides when backing vehicles



and equipment. Ensure there's one in the front just off to the side, while the other is off to the side to the rear of the vehicle/equipment.

•Only one ground guide gives signals to the operator. Be sure everyone involved (the operator and ground guides) understand who will give the signal and who will receive it before any movement is done.

•If sight between the operator and the ground guide making the signal is lost, the operator must stop the vehicle until the signal is again visible or the confusion is cleared up.

I believe in following these simple steps so accidents like the one I witnessed won't happen again. To me, the accident was sad because the NCO's career was over the second she stepped behind the PLS. Always make sure you are doing your job as an NCO and lead by example. Never take shortcuts just to finish sooner. It's better to be late and safe than injured or dead.

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It may seem there isn't much to ground guiding a vehicle. It's dangerous work, though, if you don't know what you're doing. To help ensure you're not injured in a preventable accident, check out Army Regulation 385-55, Prevention of Motor Vehicle Accidents; Field Manual 21-305, Manual for the Wheeled Vehicle Driver; and Training Circular 21-306, Tracked Vehicle Combat Training, all of which provide guidance on the use of ground guides and ground-guiding procedures. In addition to the publications mentioned in the article to the left, use the procedures below to manage the risks associated with ground-guiding operations.

- 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 and in congested areas.
- When traveling cross-country 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 will never walk backward and never get between two vehicles.
- During periods of limited visibility or darkness, ground guides will be equipped with suitable lights (two flashlights and extra batteries).
- Ground guides will use hand signals. Voice signals can be misunderstood or go unheard.
- Ground guides also will:
- Keep 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.

alking and biking are healthy, environmentally friendly transportation options. As more people are walking and biking to work, cities are implementing bike-share programs and transportation planners are taking pedestrians and cyclists into account. Unfortunately, pedestrians and cyclists are at an inherent disadvantage when involved in traffic crashes. When a faster-moving vehicle meets a pedestrian or a bicycle, the vehicle always wins.

There has been an increase in accidents involving pedestrians walking down the street over the past five years. The National Highway Traffic Safety Administration, along with the Department of Transportation, conducted an investigation of the increased accident rate involving victims that were not passengers in vehicles. The statistics that emerged from this investigation are of great concern for anyone that walks, runs and rides a bicycle — as well as drivers.

In 2015, there were 5,376 pedestrians killed. Those numbers can be broken down to show that 15 percent of all traffic fatalities were pedestrians. If we break it down even further, every two

hours a pedestrian was killed, and one was injured every seven minutes. Drunk driving deaths have decreased over the last five years, but the number of people killed while walking or running killed by a vehicle has increased.

As safety professionals, we need to educate our civilian employees and Soldiers about pedestrian safety. Today, the streets and roadways are full of distracted drivers and sidewalks are full of distracted walkers, runner and bicyclists. This trend is a recipe for a life-changing moment for anyone trying to get from point A to point B, whether in a car or walking. Technology has made it possible for many to stay informed about things, but it has diminished our awareness

of our immediate surroundings. We need to make some changes.

Drivers and pedestrians alike share the responsibility of keeping themselves and others on the

FY

Since the beginning of fiscal 2017, 14 Soldiers have died in pedestrian mishaps.

road safe. The Federal Highway Administration has made many strides to increase pedestrian safety. Infrastructure improvements have added a variety of safety measures, including more medians and redesigned roads allowing for better pedestrian and bicycle traffic flow. Even with these improvements,

Walk this Way, Bill RANDY L. UPTON U.S. Army Sustainment Command Rock Island Arsenal, Illinois





"TODAY, THE STREETS AND ROADWAYS ARE FULL OF DISTRACTED DRIVERS AND SIDEWALKS ARE FULL OF DISTRACTED WALKERS, RUNNER AND BIGYCLISTS."

personal responsibility is paramount to increasing a safe commute. The following are just

- a few things you can do as you walk or ride your bike.
 - •Take time to be aware of your surroundings. Many collisions are caused by carelessness on the part of the driver or pedestrian. Always pay attention to vehicles around you and follow all traffic rules.
 - Avoid distractions. Cellphones, handheld devices, video games, newspapers, headphones, eating or anything thing else that takes your eyes, ears or mind off the road is a distraction. Any of these has the potential to distract you at the exact moment that you need to be alert.
 - Stay sober. One study showed that almost half of all traffic crashes resulting in pedestrian casualties involved alcohol consumption. Surprisingly, 35 percent of that total was on the part of the pedestrian. Alcohol impairs your decision-making skills, physical reflexes and other abilities just as much on your feet at it does behind the wheel.
 - Look left, right and left again before crossing the street. Looking left a second time is necessary because a car can cover a lot of distance in a short amount of time.

- Make eye contact with drivers of oncoming vehicles to make sure they see you.
- •Be aware of drivers even when you are in a crosswalk. Vehicles have blind spots.
- Do not wear headphones while walking.
- Never use a cellphone or other electronic device while walking.
- If your view is blocked, move to a place where you can see oncoming traffic.
- •Never rely on a car to stop.
- Children younger than 10 should always cross the street with an adult.
- Only cross at designated crosswalks.
- Wear bright and/or reflective clothing.
- Walk in groups

We can regain our confidence in walking or riding our bicycles around town if we take time to educate ourselves and others about the inherent dangers involved in these activities. Walking and biking are a couple of the best things we can do to stay healthy, but only if we put safety first. An accident is an unacceptable loss and we should never believe they are unavoidable. When we make poor or indisciplined decisions, bad things can happen.

e this Way









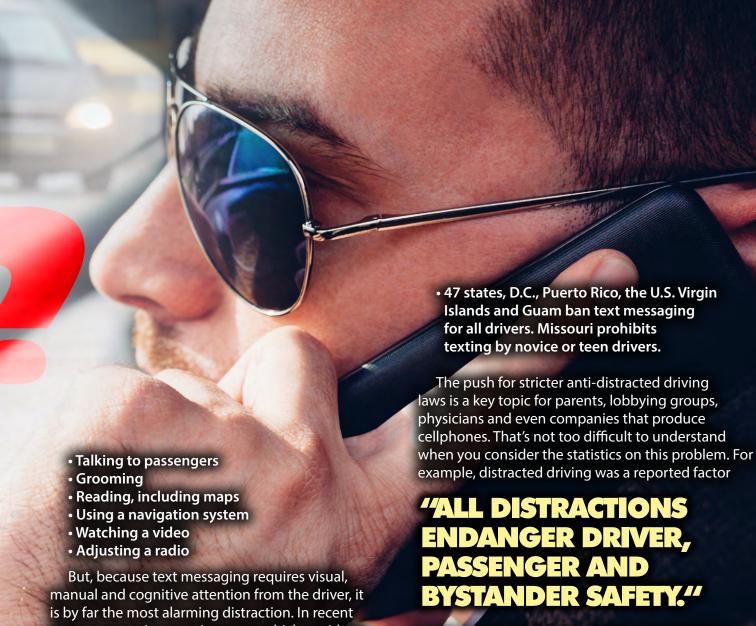
He was barely 10 miles from our house when he went off the west side of the road and hit a culvert, which sent his truck flipping end-over-end. He had apparently been wearing his seat belt but had slipped it off. We don't know for sure, but perhaps his cellphone had fallen on the floor and he was trying to retrieve it. During the crash, he was ejected and landed 38 feet to the east side of the road before he stopped. His last texted words were, "Yeah T."

Only 24 hours before the accident, my husband had told our son to put his cellphone down, pointing out it was controlling his life. As it turned out, it did just that — it took his life. Now his little girl has to grow up without her daddy, our daughter without her brother and us without our son. Every night I go to his room, turn on the light, smell his jacket, touch his hats and tell him goodnight and that I love him. It has been nine

So what is more important than paying attention while you're driving? What distraction is worth throwing away your life?

The National Highway Traffic Safety
Administration has defined three categories of distracted driving: visual (taking your eyes off the road), manual (taking your hands off the wheel) and cognitive (taking your mind off what you are doing). NHTSA defines distracted driving as any activity that could divert a person's attention from the primary task of driving. All distractions endanger driver, passenger and bystander safety. These types of distractions include:

- Texting
- Using a cellphone
- Eating and drinking



in 16 percent of all fatal and 20 percent of all injury collisions. Drivers using handheld devices were four times more likely to get into injury crashes.

Sending or receiving a text message takes a driver's eyes from the road for an average of 4.6 seconds. At 55 mph, that distance is equivalent to a football field. Also, headset cellphone use is not substantially safer than handheld devices. Simply put, distracted is distracted. In fact, a study by Carnegie Mellon University found driving while using a cellphone reduces the amount of brain activity associated with driving by 37 percent.

Still, there is more than statistics involved. For our family and others who have lost a loved one to a distracted driving accident, the reality of the cost is much more personal. I can't bring back my son, but maybe, if you read this story and take the message seriously, you won't have to bury someone you love. In the deadly moment it takes to text, a whole lifetime of love and opportunities can be lost. No text message is worth that.

years, a severe increase in motor vehicle accidents and fatalities was caused by texting while driving.

We've all been guilty of driving distracted at some point in our lives. Although you may have been fortunate to never have been liable for an accident or ticketed for driving distracted, it's time to take the issue seriously. According to NHTSA, texting drivers are 23 times more likely to have an accident than drivers

23 times more likely to have an accident than drivers paying proper attention behind the wheel. The dangers caused by distracted driving have led many states to enact new laws to protect motorists, including:

• 15 states, the District of Columbia, Puerto Rico, Guam and the U.S. Virgin Islands prohibit all drivers from using handheld cellphones while driving. While no state bans all cellphone use for all drivers, 38 states and D.C. ban all cellphone use by novice or teen drivers, and 21 states and D.C. prohibit any cellphone use for school bus drivers.

Are You Am Experienced Rider COMPILED BY THE KNOWLEDGE STAFF

f your confidence and decision-making skills behind the handlebars are generated from experiences while riding, when do you actually become an "experienced" motorcycle rider? To answer that, you must first address a few misconceptions.



One misconception is that if a rider has owned a motorcycle for a long time but only ridden it a couple of months each year, they are an experienced rider. Similarly, just because a Soldier rides a few miles to work and home every day on the same route doesn't make him or her an experienced rider. These are examples of experienced owners, not experienced riders.

Another misconception is that if you are senior in rank and ride a motorcycle, then you are an experienced rider in the unit. Again, this is not always true because many people do not get into motorcycling until their 30s and haven't been riding all that long. Rank does not make experience. Riding time does.

For units to recognize this can be a challenge. We naturally tend to assign the senior-ranking individual to be the senior mentor for the unit. However, just because you are a leader in the Army does not qualify you as the most experienced person to mentor younger riders. Unfortunately, sometimes our pride gets in the way, making it hard to listen to guidance from a younger, junior Soldier who is more experienced on two wheels.

Since there is no cookie-cutter pattern for identifying experienced riders, here are a few things to consider when selecting mentors for your unit. First, look at how you conduct day-to-day business in your unit. You use individuals with loads

of experience to train and prepare Soldiers for their missions. Why not do the same with your MMP?

Second, understand the need to select mentors based on their experience with certain types of motorcycles. A perfect example is to look at aviators. You don't have UH-60 Black Hawk pilots training AH-64 Apache pilots. Why don't we use the same reasoning when selecting mentors for motorcycle riders? Units can follow the same concept by selecting a mentor for each of the two primary types of motorcycles sport bikes and cruisers. These two types of bikes handle differently and require different skill sets. Many Soldiers don't have experience on both, so a single mentor for both types of riders may not be the best choice. The more specific experience and knowledge mentors have, the stronger they can lead the program.

Third, an experienced rider must also be one who knows the Army standards for safe operation; practices safe and disciplined riding at all times; and can be the example of responsible riding while they mentor other riders in a unit. These are only a few recommendations for units to consider when selecting mentors and don't reflect all the criteria needed.

The truth is experienced riders are not always those who are senior in rank. Each unit should review a rider's history, interview the individual and select the best choice to lead their program. It may be that the specialist who began riding as a kid and progressed to larger bikes as an adult is the senior experienced rider in your unit, not the sergeant first class or first sergeant. Experience goes a long way in training others to survive, especially on two wheels. To identify an experienced rider for your mentorship program, look at the individual, not rank. ■

hat August day began clear and sunny typical of the early summer mornings in the desert of southwestern Arizona. I took a deep breath of the cool morning air as I stepped from my car in the office parking lot. I was in my first week of employment on Fort Huachuca and it was finally Friday. What a start to the day. By late morning, ominous when I left work at the garrison cumulus cloud buildup began safety office about 1530. across the area as the day After being stuck inside heated and the air rose and the office most of the day, I condensed. Across the Huachuca desperately wanted to roll down Mountains, the sky darkened the windows and take a relaxing and distant thunder rumbled. drive before heading home. I Rain started falling high up in hatched a quick plan: I would the mountains that afternoon, take the range road to Garden yet the San Piedro Valley and Canyon in the southern half of Fort Huachuca were still dry the post. I had heard it was a

scenic area and held some protected petroglyphs that I should see.

The road has several improved low water crossings as it winds through the alluvial fans of eroded material along the eastern flanks of the mountains. All of these were dry as I proceeded up the canyon. The sun was still shining when I stopped at a picnic area in the canyon to stretch my legs and take in the scenery.

Within two minutes of stopping, the weather rapidly changed and the situation degraded in front of my eyes. Up the canyon, another low water crossing in the road immediately filled with rushing, debris-choked water. I watched in amazement as the once passable dip in the road became an intense flow 3 to 5 feet deep. Any person caught crossing at that moment would certainly have been in danger.

I quickly started driving back down the canyon, hoping to beat the rushing water that would cut off my egress. Rounding a corner to the next crossing, my fears were realized. I was trapped. I could not get out of the canyon until the water receded. From my tactical driver training in the Army, I was well aware that attempting to drive across the swollen stream would result in disaster. Only after an hour of waiting did water levels subside so I could safely cross and head home.

Lessons learned

Low water crossings are often a hidden hazard on our installations and can take property and lives without warning during flash flood events. Fort Huachuca, situated at 4,400 feet in southern Arizona, contains 307 identified low water crossings throughout the cantonment and ranges. These low-lying topographical areas often see water drainage during heavy rainfall from seasonal monsoon rains and can swell to dangerous levels, often in a matter of minutes. With such swift-moving currents, the flood waters during these events may contain large amounts of debris and material, further adding to the hazard.

Here is some useful information that can help you avoid being trapped by rising waters:

It only takes about 1 to 2 feet of swift-moving water to float and move most vehicles, including SUVs.

- Just 6 inches of fastmoving flood waters can knock you off your feet.
- Never drive around barricades, into underpasses or over low water crossings when thunderstorm warnings are present.
- Beware of distant thunderstorms, especially if they're over mountains. Flash flooding can occur many miles away from the thunderstorm as the runoff flows into the valleys and deserts.
- Do not camp overnight or park your vehicle along or near streams and washes during monsoon season.

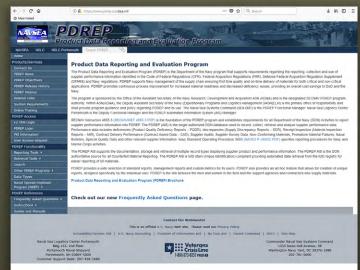
Monsoon flooding is a seasonal reality for many southern Arizona residents. From the beginning of July until the end of September, the region receives 80 percent of its annual rainfall. As new employee on Fort Huachuca, I should have familiarized myself with local hazard awareness before taking that drive.



re you having problems with your equipment? If so, you should file a Product Quality Deficiency Report, or PQDR, for every malfunction or defective item, part or tool you find.

Don't call the manufacturer for help since that's against regulation. Instead, file a PQDR so the Army can act to correct it. Any item that does not meet the "form, fit or function" criteria is a candidate for a PQDR. It may seem a hassle, but this is essential. As well, it will help your unit avoid excessive charges. When you get a defective part, you want a replacement fast and your unit wants to be reimbursed for the bad one. PQDRs should not be submitted for issues or damage because of improper use, improper handling or normal wear and tear. Reporting items that fail to meet quality standards helps reduce the amount of defective materiel sent out. This process in turn saves money and lives.

Make sure to include the following details: NSN or



defective item; original unit requisition number; contract number; supplier name; complete narrative of problem. File PQDRs through the Product Data Reporting and Evaluation Program at https://www.pdrep.csd.disa.mil. For help with the PDREP or filing PQDRs, contact customer support at DSN 684-1690 or (207) 438-1690. ■

If it happens ...



https://safety.army.mil







Rest, Recove Proper Sleep

COL. DAVID ROMINE, DO, MPH
Command Surgeon
U.S. Army Combat Readiness Center/HQDA Safety
Fort Rucker, Alabama

t was a quiet morning with the mist of daybreak broken gently by the early light of dawn and a small group of cadenced Soldiers marching along a roadway.

For the Soldiers and their NCOs, it had been a rigorous couple of days of training starting early in the morning and stretching into evening.

This particular day started as the previous mornings had, with physical readiness training. Afterward, the Soldiers headed to the range for weapon qualification and a foot march back to the unit area.

This training task was not foreign to the Soldiers and NCOs; they completed it a few days prior. Today, however, disaster struck.

A truck following the Soldiers with water and other support accelerated into the group, killing two and injuring five.

In a split second, what began as a routine day of training ended in tragedy. The driver was a seasoned leader, committed to the 24/7 care and training of Soldiers. This is what the he lived for – to the point where he and his peers neglected their sleep hygiene. The deadly result: falling asleep while driving a truck and accidentally running through a formation of troops from behind.

Human performance while sleep-deprived is a lot like being under the influence of alcohol. Driving after being awake for 18 hours is equal to a blood alcohol concentration of 0.08 percent – e.g. legally drunk – and leaves you at equal risk for a crash.

According to Williamson and Feyer, in the journal Occupational and Environmental Medicine, "the fatigue of sleep deprivation is an important factor likely to compromise performance of speed and accuracy of the kind needed for safety on the road and in other industrial settings," with corresponding degradation of performance due to fatigue when compared to that of alcohol – and, that it was often even worse.¹

The National Sleep Foundation reports 100,000 crashes each year are caused by fatigued drivers and that 55 percent of drowsy driving crashes are caused by drivers less than 25 years old.^{2,3}

There's an increased likelihood that the macho pronouncement, "I'll sleep when I'm dead," will certainly self-fulfill, should the lie rear its ugly presence in a unit, either for the one making the statement or for an unwitting victim or victims of this willful, deadly carelessness.

While attitudes are shifting, there remains an entrenched disregard for the negative effects of sleep deprivation-related fatigue and the damaging effects on performance and safety.

However, there's a notable exception: Aviation as a whole has made great advances over the past 50 years by implementing (among other safety policies) clearly and intentionally defined "crew rest" time into battle rhythms and flight schedules. Translating these safety successes into non-aviation settings has proven difficult but must be pursued aggressively, by a modern fighting force that wants to increase readiness and success in battle.

ry and Readiness: Hygiene as a Force Multiplier

There are, however, signs that attitudes overall are changing. Many folks in and out of the military are proclaiming sleep to be "a new miracle drug" and believe proper amounts and quality of sleep provide whole-body restoration and detoxing. But there's nothing really new about this.

Additionally, there are marked human performance benefits with increased sleep, as Dr. Murali Doraiswamy of Duke University Medical Center and chair of the Global Agenda Council on Brain Research reports.

As an example, elite athletes experience enhanced performance when increasing their time spent sleeping.⁴

Also, just ask anyone who has recently received successful treatment for obstructive sleep apnea or other sleep disorders and note the life-changing benefits

they report from finally getting a good night's sleep.

The popular and scientific press has had a lot to say about the importance of proper sleep for a long time. Military writers and wellness advocates, notably via the Army's Performance Triad, also have weighed in on the topic, all promoting awareness of the relationship of good sleep habits and safety to service members and military civilians. Yet, sustained rates of fatigue-related accidents in the military population persist, both on and off duty.

Leaders and safety professionals (that's everyone in the military) face the challenge of questioning why messaging and methods promoting restorative sleep are met with limited success.

The fact that properly resting personnel has multiple benefits across the spectrum of human performance and military readiness is undisputed. The challenge remains thwarting the myth that there is any honor at all in sleep deprivation and for establishing a culture of healthy and timely rest into the battle rhythm of the force, one where witnessed sleep deprivation

elicits the same response as drunk driving, leaving a child in a parked car on a hot day, etc. The proven potential for serious injury or death is just as real.

Like elite athletes, warrior athletes across the Army benefit from adopting a lifestyle of nurturing restorative sleep hygiene and guarding proper personal and group rest and recovery, even as many Soldiers, Airmen, Sailors and Marines guard their workout routines, fitness supplements, nutrition, professional training, etc.

"THE FACT THAT PROPERLY RESTING PERSONNEL HAS MULTIPLE BENEFITS ACROSS THE SPECTRUM OF HUMAN PERFORMANCE AND MILITARY READINESS IS UNDISPUTED."

Sleep is cheap. It costs nothing to rest troops properly, with proven, immediately realized returns on investment of improved readiness and reduced loss. The trust built among warriors is built on certain assumptions.

Let's add the confidence of knowing a battle buddy is rested and ready to our list of vital tactics, techniques and procedures. ■

¹ Williamson, AM, Feyer, Anne-Marie. Moderate sleep deprivation produces impairments in cognitive and motor performance equivalent to legally prescribed levels of alcohol intoxication. Occup Environ Med 2000;57:649–655.

² Drowsy Driving Prevention Week, National Sleep Foundation: http://drowsydriving.org/about/detection-and-prevention/.

³ Ibid.

⁴Grenoble, R Finance Industry's 'Macho Attitude' About Sleep Has Serious Consequences. HuffPost online, 01/21/2016: https://www.huffingtonpost. com/entry/high-finance-sleep-athletesdavos_us_56a14306e4b0404eb8f0c59d.

Safety Source So

quipment maintenance is a necessary and inherently dangerous task. To ensure the wellbeing of Soldiers and civilians in maintenance facilities, we're required to utilize the risk management process as well as acknowledge potential health and safety hazards that are present in the workplace. We also need to determine where, what and how personnel are likely to become injured or killed. It all starts with the application of the five steps of risk management outlined in Field Manual 5-19.

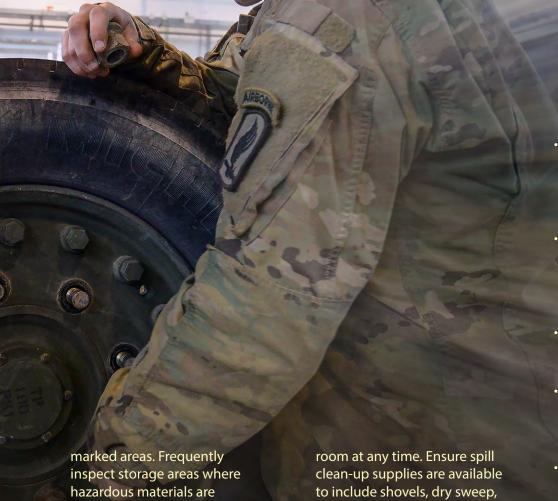
The benefits of maintaining a safe workplace are many, but what should remain at the forefront of your mind is this: Safety is about protecting our Soldiers and equipment, whether in garrison or on the battlefield. A solid unit safety program allows leaders and supervisors to protect their best resources — Soldiers, equipment and facilities — as well as reduce the amount of costs and time spent with avoidable injuries, accidents and damages to equipment.

In a continuing effort to ensure the safety of personnel during maintenance operations and to provide a safe environment for our Soldiers, leaders and supervisors are encouraged to develop and implement standard operating procedures and policies. In addition, personnel need to be educated on existent Department of Defense, Department of the Army, Occupational Safety and Health Administration and National Fire Protection Association regulatory requirements.

The application and adherence of good safety practices while conducting maintenance operations is a force multiplier, and Soldiers and leaders alike should continue to follow established safety procedures. Here are some tips and considerations that just might prevent the next mishap in a maintenance facility or motor pool:

 Keep maintenance bays clean, neat and free of fire hazards at all times. These hazards include chemicals, fuels, rags, wood and paper products and anything else that could cause a fire.

- Maintain vehicle speeds at a minimum when operating within the limits of a maintenance facility, usually 5 to 10 mph, or as posted. Use ground guides always!
- Create and post a safety board in an easily accessible area.
- Eyewash stations and emergency showers should be available in areas where personnel use hazardous chemicals.
- Store petroleum, oil and lubricant products in approved containers and in well-ventilated



stored. Ensure contaminated oil and POL products are properly disposed of.

- Floor, load-bearing capacities must be posted and observed.
- · Have a designated clearlymarked smoking area. Strictly enforce the "No Smoking" rule and prominently display "NO SMOKING WITHIN 50 FEET" signs.
- Place large, bulky or heavy items away from doors to

brooms, empty container and protective clothing.

- All lifting devices (jacks, jack stands, hoists, cranes) will be maintained and in usable condition at all times. Inspect these devices periodically according to equipment maintenance manuals and regulations.
- Overhead cranes and hoist assemblies will have the max

supervision because of the inherent danger of flash fires starting from a variety of reasons.

- Operate power tools away from explosives, flammable liquids, gases, or dust. Power tools create sparks, which may ignite the dust or fumes.
- Chemical agent resistant coating painting will be conducted only by trained and authorized personnel with appropriate personal protective equipment.
- Store and secure gas cylinders to a wall or fixed surface to prevent tipping, falling or rolling.
- Only fully trained and qualified licensed personnel are authorized to weld. An exhaust system must be present.
- Close off battery shops from the general maintenance area and make sure the shop is clearly marked.
- Ensure fire extinguishers are serviceable and readily available.
- Use lubrication pits for servicing military vehicles only. Pits will be well ventilated and illuminated. A steel fence will be used at all times when a vehicle is not over the pit. Store battery packs away from other metal objects.
- Ensure serviceable PPE is readily available to all personnel.

The overall effectiveness of a safety program is measurable through leadership engagement, personal involvement and supervision. Leaders must insist on adherence of established safety rules and standards while continually evaluating their mission for innovative preventive measures that will enhance the unit's safety program. We must remember, whether working in a maintenance tent or motor pool the safety of our Soldier is paramount!

"SAFETY IS ABOUT PROTECTING OUR SOLDIERS AND EQUIPMENT, WHETHER IN GARRISON OR ON THE BATTLEFIELD."

facilitate easy movement in the event of an emergency.

• Gasoline/gasoline by-products (rags, pans, brushes, etc.) will not be stored indoors of any maintenance facility or storage load capacity stenciled on both sides of the support assembly readily visible by personnel.

 Conduct refueling operations in a safe manner and under

ow that we are fully immersed in the summer months, there are several considerations that need to be taken into account when planning for work. The most important is preparing the workforce for working in the heat. Every year, thousands of workers become victims to heatrelated illnesses, but with the proper preventive measures, we can eliminate their occurrence.

As part of the Occupational Safety and Health Administration's campaign to Keep Workers Safe in the Heat, a variety of resources have been made available to help in planning work tasks so action can be taken to prevent heat-related illness. As part of this campaign, OSHA has partnered with the National Institute of Occupational Safety and Health to develop the Heat Safety Tool. This tool is available as an app on Android and Apple devices in both English and Spanish. Due to the tool's mobile capability, it can easily be accessed to provide real-time information on demand.

Once downloaded. the tool permits workforce planners, and even the workforce itself. to input their workplace location

to determine the corresponding heat index for a given day, even hour-by-hour. The heat index is a more accurate value in determining the susceptibility of heat-related illnesses than only using the air temperature. It takes into account the relative humidity along with the air temperature into a single value that represents how hot the weather actually feels to the individual working in the heat.

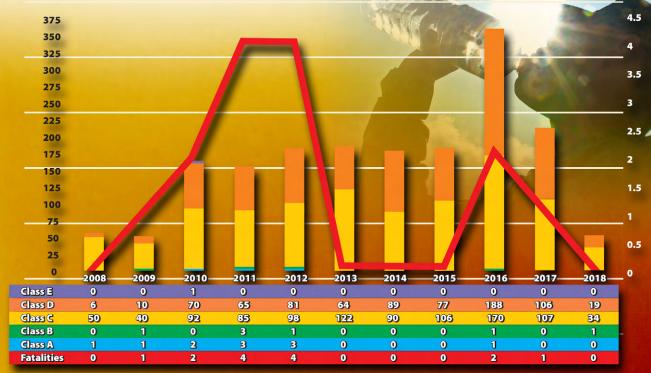
Once the heat index is calculated, the tool will display an associated risk level (low, moderate, high, very high/extreme) and provide suggested measures to be implemented to aid in the protection against heat-related illnesses. All applicable controls should be considered during the planning of work to ensure the appropriate resources are available so the workforce can be protected in the hottest weather.

Heat-related illnesses are 100 percent preventable. Take proactive measures to protect your workforce. To download the Heat Safety Tool smartphone app, visit OSHA's website at https://www.osha. gov/heat/. ■

There's an App

ASHLYN LANDGRAFU.S. Army Corps of Engineers, Pittsburgh District Pittsburgh, Pennsylvania

ARMY HEAT-RELATED INJURIES



WATER. REST. SHADE

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION https://www.osha.gov/

Our campaign

Our Heat Illness Prevention campaign, launched in 2011, educates employers and workers on the dangers of working in the heat. Through training sessions, outreach events, informational sessions, publications, social media messaging and media appearances, millions of workers and employers have learned how to protect workers from heat. Our safety message comes down to three key words: Water. Rest. Shade.

Dangers of working in the heat

Every year, dozens of workers die and thousands more become ill while working in extreme heat or humid conditions. More than 40 percent of heat-related worker deaths occur in the construction industry, but workers in every field are susceptible. There are a range of heat illnesses and they can affect anyone, regardless of age or physical condition.

Employer responsibility to protect workers

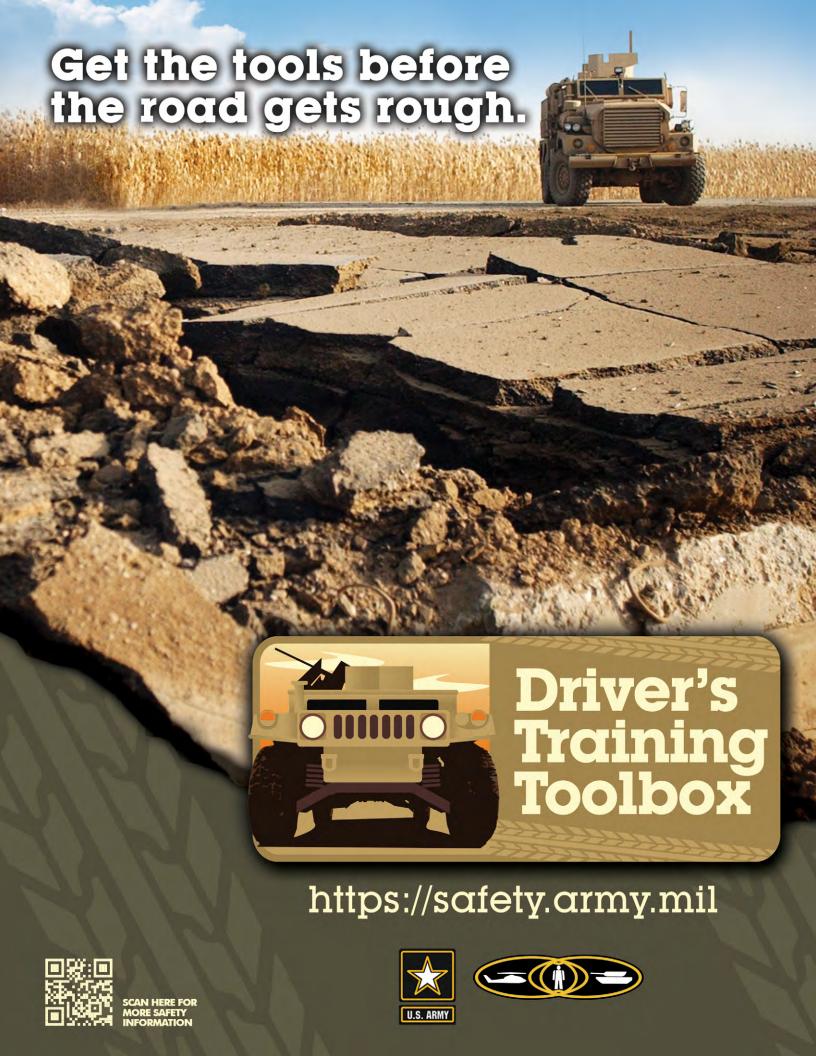
Under OSHA law, employers are responsible for providing workplaces free of known

safety hazards. This includes protecting workers from extreme heat. An employer with workers exposed to high temperatures should establish a complete heat illness prevention program.

- Allow new or returning workers to gradually increase workloads and take more frequent breaks as they acclimatize, or build a tolerance for working in the heat.
- Plan for emergencies and train workers on prevention.
- Monitor workers for signs of illness.

Resources

OSHA's Occupational Exposure to Heat page, https://www.osha.gov/SLTC/heatstress/index.html, explains what employers can do to keep workers safe and what workers need to know, including factors for heat illness, adapting to working in indoor and outdoor heat, protecting workers, recognizing symptoms and first aid training. The page also includes resources for specific industries and OSHA workplace standards. Also look for heat illness educational and training materials on our Publications page at https://www.osha.gov/pls/publications/publication.athruz?pType=Industry&pID=571. ■





DoD Fire and Emergency Services Awards Announced

he Department of Defense Fire and Emergency Services community is on duty 24 hours a day, sometimes putting their own lives on the line to ensure our military is ready to fight today and in the future. Each calendar year, the DoD recognizes outstanding contributions and honors fire department and firefighters through the annual DoD Fire and Emergency Services Awards Program.

2017 Army Winners of the DoD Fire and Emergency Services Awards Program

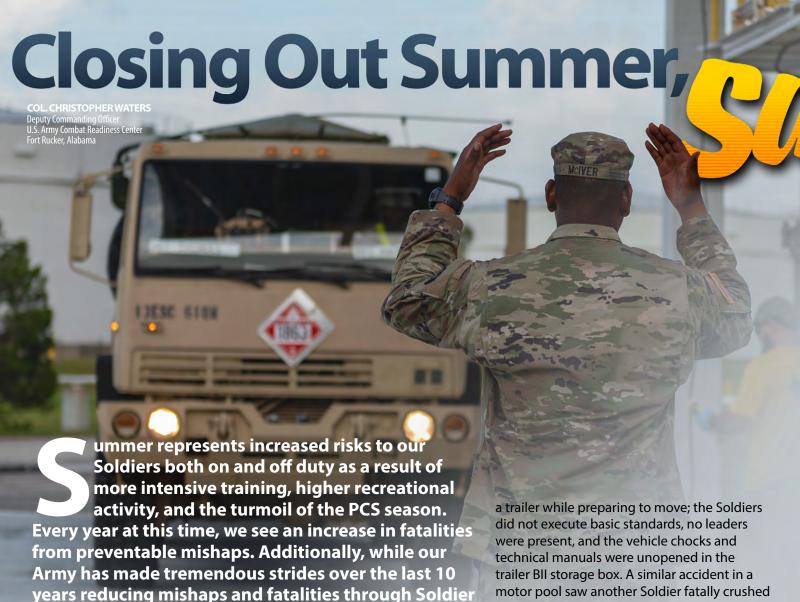
FIRE DEPARTMENT OF THE YEAR (Small Category)

Red River Army DepotTexarkana, Texas

CIVILIAN FIRE OFFICER OF THE YEAR

District Chief William P. Pagels

Fort Benning Fire and Emergency Services
Columbus, Georgia



At the U.S. Army Combat Readiness Center, we conduct and review fatal mishap investigations and there is a common thread in most of them. Accidents occur when we fail to execute tasks to standard. For most every task, we have well-defined procedures and standards

efforts throughout the rest of the summer.

discipline and leader diligence, our numbers over the

last 18 months show a reversal of that positive trend.

I urge all of you to step up your risk management

designed for the conditions in which we expect to operate. Failing to execute to standard makes even the most benign task more dangerous.

This is especially true in Army motor vehicle operations, where more than half of our on duty fatalities occur. (Note: A combat aviation brigade has more vehicle rolling stock than a brigade combat team). A recent fatal mishap at the National Training Center saw a Soldier crushed between a vehicle and

motor pool saw another Soldier fatally crushed because the Soldiers performing the trailer operations were not trained or equipped properly. In that tragic case, multiple leaders were observing, but not supervising, as the fatality occurred right in front of them.

There are fundamental reasons why we fail to follow standards — inexperienced

Soldiers don't execute to standard, Soldiers are not trained to standard, leaders don't enforce the standard, or we fail to execute proper risk management. I challenge each and every one of you to emphasize the following:

A quick note on aviation operations: We have suffered seven Class A mishaps thus far in FY18. Of those, three occurred after landing during ground taxi operations where we literally drove the aircraft into fixed structures. All three instances share common causal factors: complacency, poor crew coordination, and failure to execute published procedures or tasks to standard. If you have not yet received the USACRC's "close-call" vignette based training, which highlights these and many other "near-miss" lessons learned, please contact MAJ. Travis Easterling at travis.j.easterling.mil@mail.mil or DSN 312-558-2932. We will send a team to you to execute the training.



Standards and discipline. Train to standard. Enforce the standard. When Soldiers train and execute to standard they are less likely to fall prey to hazards and risks. Don't let Soldiers execute a task for which they are not trained. Leaders must know the standards, and they must be present and actively supervising at the point of execution. Assign your most experienced Soldiers to the highest-risk operations, implement mitigation controls, and place leaders at the point of execution.

Motor vehicle operations. This is the single-highest payoff focus area for leaders and Soldiers to prevent loss. Learn and implement the recently revised Army Regulation 600-55, The Army Driver and Operator Standardization Program; select and empower your Master Drivers; and emphasize your driver licensing and training programs. Demand use of the operator's manual and operating procedures for all motor vehicle operations.

The summer also represents the highest risk period for our Soldiers and families during offduty activities, which account for an overwhelming majority of our total fatalities. Over the last five years, we've lost an average of 33 Soldiers in July, August and September to off-duty accidents. That is nearly a flight company's worth of readiness lost, often senselessly due to poor judgment and a wholesale absence of proactive risk management. A majority of all off-duty fatalities are a result of private motor vehicle mishaps, both four-wheeled vehicle and motorcycle accidents. (Note: Motorcycles are a disproportionate killer of our Soldiers. Leaders must know and mentor our motorcycle riders, and riders must adhere to the skills, judgment and behavior taught at our

motorcycle safety courses). Just like on duty, motor vehicle operations off duty are the best point of emphasis to prevent loss. I cannot overstate the importance of risk management while driving or planning to drive.

This year, we have also lost Soldiers to drowning while kayaking, privately owned weapons discharges, pedestrian vehicle collisions, pedestrian with train collisions (three total), weightlifting, snowboarding, and a household fire. As you would expect, many of these involved alcohol. Moreover, we have well surpassed off-duty fatalities to date compared to FY17. We must help our every day, every activity — identify, assess and mitigate the hazards and risks you expect to encounter in that endeavor. This will create a culture of risk awareness and risk management that preserves readiness.

Leaders must focus on junior leaders. While we all assume it's our youngest Soldiers who are at highest risk when off duty, the fact is that so far this year, more than 55 percent of our private motor vehicle fatalities have been sergeants and above. The leaders we expect to enforce standards across our formations are not doing so in their own off-duty activities. Mentor them and ensure



The Secretary of the Army recently rescinded two well-known safety-related motor vehicle requirements as part of his "Prioritizing Efforts - Readiness and Lethality" Directives: the Travel Risk Planning System (TRiPs) and the Army Accident Avoidance Course. Removal of these requirements in no way diminishes the criticality of active Soldier and leader risk management during motor vehicle

operations. The Secretary's intent is to reduce the administrative burden on Soldiers and leaders at the company level to eliminate distractions and focus on readiness. In doing so, he is in fact emphasizing the importance of face-to-face leader and Soldier interaction and hands-on training and risk management, rather than relying on outdated computer-based training and virtual e-interaction.

fellow Soldiers recognize and avoid the hazards that lead to these tragedies and instill a risk management mindset at all times, both on and off duty.

I ask your consideration with the following:

Manage off-duty activities the way we manage on-duty risks. Inculcate risk management into everything you do. Every operation, every mission, they are setting the right example.

Check out the Off-Duty Safety
Awareness Presentation on the
USACRC website, https://safety.
army.mil/OFF-DUTY/Homeand-Family/Off-Duty-SafetyAwareness-Presentation-2018. It
is a comprehensive tool to help
leaders and Soldiers think through
and manage off-duty hazards.

ON-DUTY TACTICAL VEHICLE MISHAPS

■ During field training, platoon leadership directed the HEMTT fuel crews to disconnect their M1076 trailers. The mishap M1076 trailer was parked on a 7 degree downslope, and the crew did not emplace chock blocks. Shortly after, the unit began to reposition the vehicles and trailers. The platoon sergeant directed the mishap driver and assistant driver to reconnect the M1076 trailer to their HEMTT. As the Soldier connected the air hoses from the M1076 trailer to the HEMTT, the trailer spring brakes released, causing the trailer to roll forward four feet into the rear of the HEMTT. The assistant driver was crushed between the trailer and HEMTT and died of injuries.

■ A three-Soldier dismount team was detached from its vehicle and attached to a company leader's vehicle at 0100 hours for a training operation. The leader's vehicle was later declared a 'catastrophic kill' by OPFOR indirect fire. The Soldiers remained with the vehicle until suspension of battlefield effects at 1230. After moving back to the company consolidation area, the three Soldiers removed and grounded their equipment to the rear of the vehicle. At dusk, the mishap vehicle departed for the CTCP to collect Soldiers and vehicles

from the day's battle. The Soldiers settled around their gear in the mishap vehicle's parking position and, while awaiting its return, fell asleep. At 2100, the mishap vehicle approached its designated parking position from the rear without a dismounted ground guide. The vehicle's front-right tires rolled over two sleeping Soldiers, resulting in one fatality and one minor injury.

ANALYSIS AND INSIGHT:

- Safe motor vehicle operations represent the highest payoff focus area for commanders.
- Motor vehicle mishaps are higher than historical trends.
- Violations of standards and procedures that most often contribute to mishaps including:
- Execute the task to standard
- Exercise good judgment and use experience
- Always train to standard
- Leaders must always enforce the standard

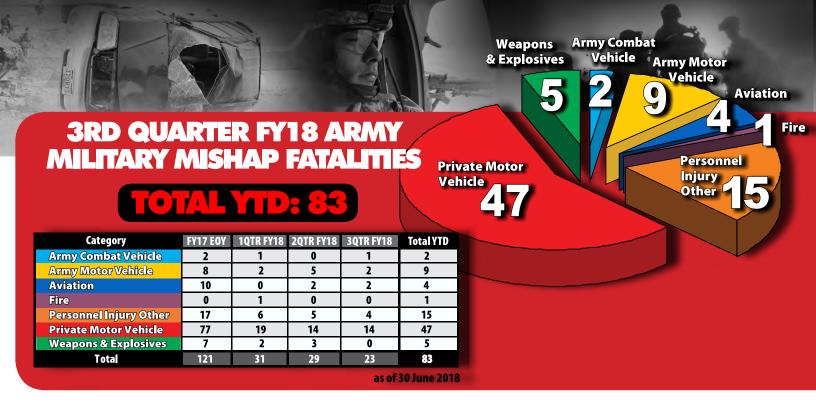
ON-DUTY HEAT ILLNESS

■A Soldier was conducting a three-hour land navigation exercise with approximately one hour remaining when he encountered two other Soldiers also on the course. The mishap Soldier stated he lost his phone and watch and had not found any of his navigation points. One of the other Soldiers, who had already found three of his four points, offered to escort the mishap Soldier and the other Soldier to the established rally point. The second Soldier agreed to be escorted, but the mishap Soldier stated he was going to attempt to find his points. He also mentioned he was low on water. The mishap Soldier departed north toward his first point, which was approximately 300 meters away from the location where the three had met. The other two Soldiers departed to the southwest. No other Soldiers or cadre reported having contact with the mishap Soldier on the course. As he was attempting to find his navigation points, the mishap Soldier experienced an exertional heat illness, became disoriented and lost consciousness. Despite an extensive

search using helicopters, specialized canine teams, trained personnel recovery teams and more than 500 personnel, his body was not found until two days later to the south of the location where the three Soldiers last spoke.

ANALYSIS AND INSIGHT:

- Don't simply rely on the use of water points to mitigate all risks; verify adequate water point coverage throughout land navigation courses.
- Specify an appropriate quantity of water necessary for Soldiers to carry on the land navigation course during the conduct of the examination.
- Recognize and mitigate hazards associated with training during Heat Category 4-5.
- Develop requirements for use and procurement of tracking devices.



ON-DUTY AVIATION MISHAPS

An AH-64E crew was conducting night familiarization gunnery. Following their fifth engagement of the night, a diving fire rocket engagement, the instructor pilot in the pilot (back) seat successfully executed the dive recovery and placed the aircraft in a left 47 degree bank to execute a 180 degree turn. During the turn, the co-pilot gunner passed the battle damage assessment to the range tower, who then passed the sixth target handover. While the CPG was focused inside the aircraft, copying the target handover, and while still in the left turn, the IP diverted his attention to something other than flying the

aircraft. Immediately after, the nose pitched down to approximately 9 degrees, nose low, and a descent rate began to build. Near the 180 degree point in the turn, the nose had pitched down to 19 degrees, nose low, and the descent rate reached 4,900 feet per minute. Approximately three seconds later, the IP noticed the unusual attitude and attempted to arrest the descent without pulling up the nose. The aircraft impacted the ground in a nose-low, 11 degree left bank at a 3,900-fpm rate of descent and 127 knots, resulting in fatal injuries to the crew and destruction of the aircraft.

■ A UH-60L aircrew's mission was to conduct recovery operations from the U.S. Military Academy's cadet summer training program. The flight landed at a commercial airport and planned to receive cold refuel before departing to its home station. After landing, the crew noted that the direct route to the civilian ground guide would place the aircraft in close proximity to the control tower. While attempting to ground taxi into parking, the main and tail rotor blades contacted the airport control tower, which caused severe damage to the aircraft and surrounding buildings and injured three Soldiers.

ANALYSIS AND INSIGHT:

- Training for large-scale combat operations to support the National Defense Strategy (peer to near-peer) lowers the flight profile and therefore increases risk in training to reduce loss in initial stages of conflict.
- Lower terrain flight profiles reduce reaction and decision time and maneuver space to respond to environmental, threat and material contingencies and exacerbates human factors mistakes.
- Be as accurate as possible when planning flight time requirements.
- Conduct no-notice evaluations that emphasize crew coordination.
- Ensure non-rated crewmembers understand their role in the safety of all flight operations in relation to airspace surveillance and ground obstacle clearance.
- Update and rehearse pre-accident plans.



OFF-DUTY PMV-4 MISHAPS

- A Soldier was operating a PMV when it ran off the road, struck a tree and overturned. Another Soldier, the passenger in the vehicle, suffered fatal injuries.
- A Soldier was fatally injured when the vehicle he was operating exited the roadway, struck three trees and returned back onto the roadway. He was pronounced dead at the scene. Wet road conditions were present at the time of the accident.
- A Soldier was traveling west on a highway when his vehicle traveled off the roadway, onto the shoulder

- and collided with several trees which caused his vehicle to overturn. The Soldier suffered fatal injuries.
- A Soldier was operating a PMV-4 while en route to his drill location when his vehicle collided head-on with a concrete barrier/divider. He was declared dead at the scene.
- A Soldier was operating his vehicle when it left the roadway and reportedly struck a culvert head-on. The Soldier later died from his injuries. Seat belt use not reported.

OFF-DUTY PMV-2 MISHAPS

- A Soldier was operating a PMV-2 when it collided with another vehicle while traveling through a four-way stop. The Soldier suffered fatal injuries and was pronounced dead at the scene. He was wearing personal protective equipment and had completed the Motorcycle Safety Foundation's Basic *RiderCourse*.
- A Soldier was riding a motorcycle on a four-lane divided roadway without barriers when an SUV traveling the opposite direction

- attempted to make a left turn into the Soldier's path. The Soldier collided with the SUV and received fatal injuries.
- A Soldier was operating a motorcycle on an interstate when he reportedly lost control while negotiating a curve and impacted a wall. He was transported to a local hospital, where he was pronounced dead.
- A Soldier was reportedly operating a motorcycle on a rural

- road when he crested a hill and encountered two vehicles that were stopped in the roadway. His motorcycle struck one of the vehicles in the rear end, resulting in the Soldier suffering fatal injuries. Speed was reported as a factor.
- A Soldier was riding his motorcycle when he was struck by vehicle while crossing an intersection. The Soldier received fatal injuries.

ANALYSIS AND INSIGHT FOR ALL PRIVATE MOTOR VEHICLE MISHAPS:

- Off-duty motor vehicle mishap prevention is the highest payoff target for commanders.
- 50 percent of FY18 PMV mishaps occurred between 1700 Friday and 2400 Sunday.
- Behavioral issues are the primary contributor to off-duty mishaps (alcohol, speed, fatigue, distracted driving, judgment, lack of risk management).

If it happens ...

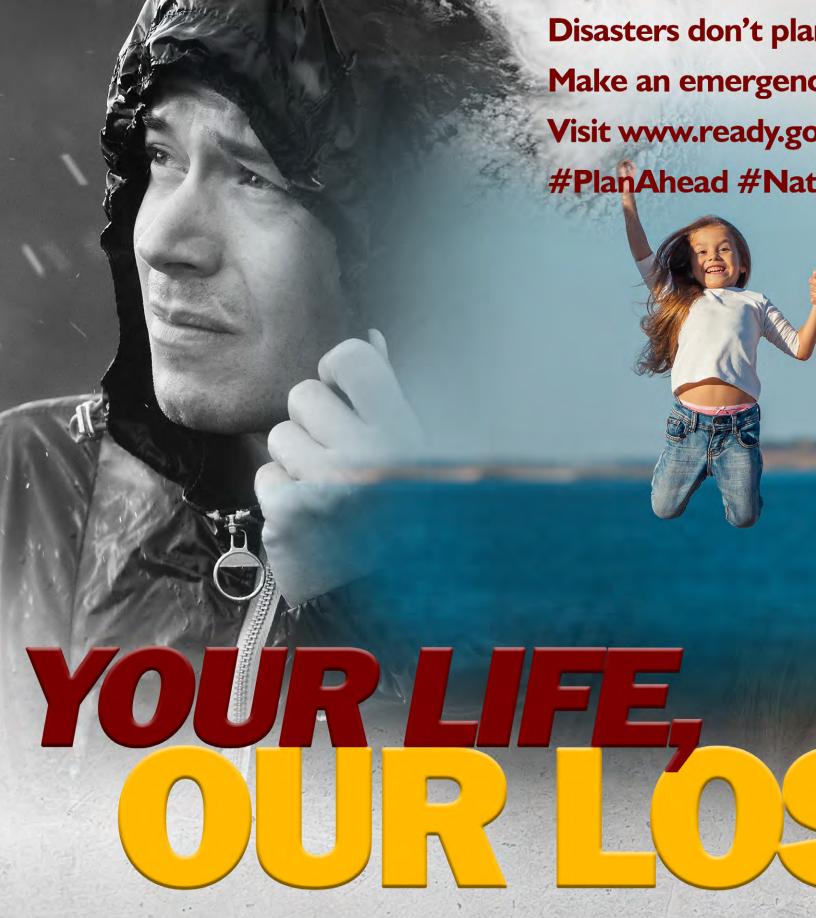


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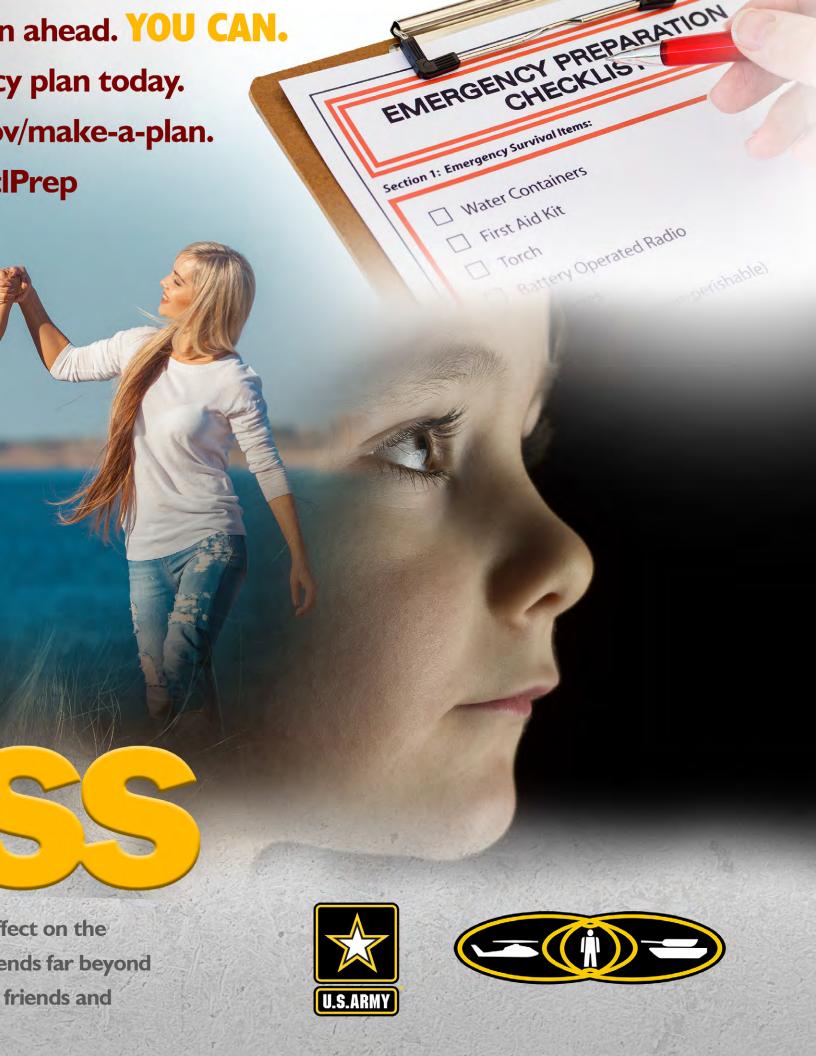








When a Soldier dies in a preventable accident, it has a detrimental ef morale and welfare of the unit. That Soldier's absence, however, extended the Army because often they also leave behind a heartbroken family, colleagues. Remember, IT'S YOUR LIFE, BUT OUR LOSS.





Do You



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