ON THE ROAD: ARE YOU A GOOD DRIVER?

KNOWLEDGE

VOL 6 JANUARY 2012

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

HOW DID OUR ARMY DO?

- MOTORCYCLE TRAINING
- WEAPONS HANDLING
- SITUATIONAL AWARENESS

+

HELL ON WHEELS

U.S. ARMY
ARMY STRONG.

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SCAN HERE FOR KNOWLEDGE ONLINE

Army Safety

The safety and well-being of every Soldier is vital to keeping our Army the most decisive land force in the world. Since fiscal year 2005, our Army has continually reduced preventable accidents and losses: a feat unprecedented in our 236-year history during a time of war and absolutely critical to maintaining our readiness for the Nation. We commend each of you for your hard work and diligence in making safety a top-priority.

Moving forward into fiscal year 2012, our focus must remain on keeping our Soldiers safe on-duty, but our primary safety focus should be preventing losses off-duty. Our Leaders and Soldiers have done an amazing job in keeping one another safe on the job, especially given the demands placed on our force in garrison and in theater. Off duty, however, we continue to struggle with losses resulting from indiscipline and high risk behavior – particularly on our Nation's roadways and specifically accidents involving speed, failure to wear personal protective equipment or seat belts, and driving under the influence. In fiscal year 2011 alone, motorcycle fatalities increased 21 percent, and accidents in privately owned vehicles continue to claim far too many of our Soldiers lives every year.

Army Leaders, at all levels, must get back to the basics of enforcing standards and reaffirming the principle that Soldiers have a duty and an obligation to stay safe 24/7, on and off duty. We must ensure the example we set is morally and ethically right – when Leaders fail to maintain the standard or lack discipline themselves, they set a climate of tolerance for risky behavior in their subordinates. This is unacceptable in today's Army. Our Soldiers deserve better from the Leaders they trust.

This year, we ask that you look inward – at your personal leadership and within your formations – to find areas you can improve upon for safety. Communicate your expectations clearly to your subordinates and uphold Army standards and discipline personally and consistently.

We are getting better as an Army, and by working together to do what we know is right, we will keep even more Soldiers safe in the year ahead. Thank you for striving every day to keep our Army safe. Together, we are The Strength of the Nation!

Raymond F. Chandler III
Sergeant Major of the Army

Raymond T. Odierno
General, United States Army
Chief of Staff

John M. McHugh
Secretary of the Army

KNOWLEDGE

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

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Mission statement: The United States Army Combat Readiness/Safety Center (USACR/Safety Center) supports our Army by collecting, analyzing and communicating actionable information to assist Leaders, Soldiers, Families and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please email comments to **safe.knowledge@conus.army.mil**.

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Knowledge provides a forum for Soldiers, Leaders and safety professionals to share best practices and lessons learned and maintain safety awareness. The views expressed in these articles are those of the author and do not necessarily reflect the official policy or position of the U.S. Army, Department of Defense or the U.S. Government. Contents are specifically for accident prevention purposes only. Photos and artwork are representative and do not necessarily show the people or equipment discussed. Reference to commercial products does not imply Army endorsement. Unless otherwise stated, material in this magazine may be reprinted without permission; please credit the magazine and author.

> "Leaders and Soldiers **STAYING ENGAGED** are the primary **REASON** for these **POSITIVE RESULTS**, and I ask for your **CONTINUED** engagement."

WHAT'S YOUR PLAN FOR 2012?

Planning is one of the things we do most as Leaders — we plan for missions, training and any number of other events throughout the year. Recent accident statistics show we're getting better and better at planning for risk as well. And if you haven't started planning for the hazards your Soldiers might face in the months ahead, the new year is a perfect time to begin.

Accident reports from past Januarys indicate several issues Leaders should be focusing on with their Soldiers. Not surprisingly, the most critical area of concern is privately owned vehicle safety. From 2007 to 2011, an average of nearly five Soldiers died in POV crashes during the first month of the new year. Although that number is somewhat lower than we typically experience during spring and summer, the last months of winter are no time for Leaders to lose sight of their high-risk Soldiers. The combination of inclement weather and risky driving behaviors like speeding, drinking and driving and failure to wear seat belts is deadly any time of year, but especially in winter when black ice and other hazards are common on roadways across the United States and overseas.

Statistics also show that motorcycle fatalities happen year-round. During the 2007-2011 timeframe, 17 Soldiers were killed in motorcycle accidents occurring in January or February. That number might seem counterintuitive given the general perception that motorcycle riding is a warm-weather activity. However, all but one of those accidents happened in the Deep South or Southwest — regions that typically experience mild winters and where hundreds of thousands of Soldiers are stationed. Leaders at installations in more congenial climates must continually engage with their Soldiers on both the joys and hazards of motorcycle riding, especially if they themselves are riders. Motorcycle mentorship programs are thriving on many of the large installations in these areas, so I encourage Leaders who aren't involved in an MMP to join one nearby or establish an original charter for their unit.

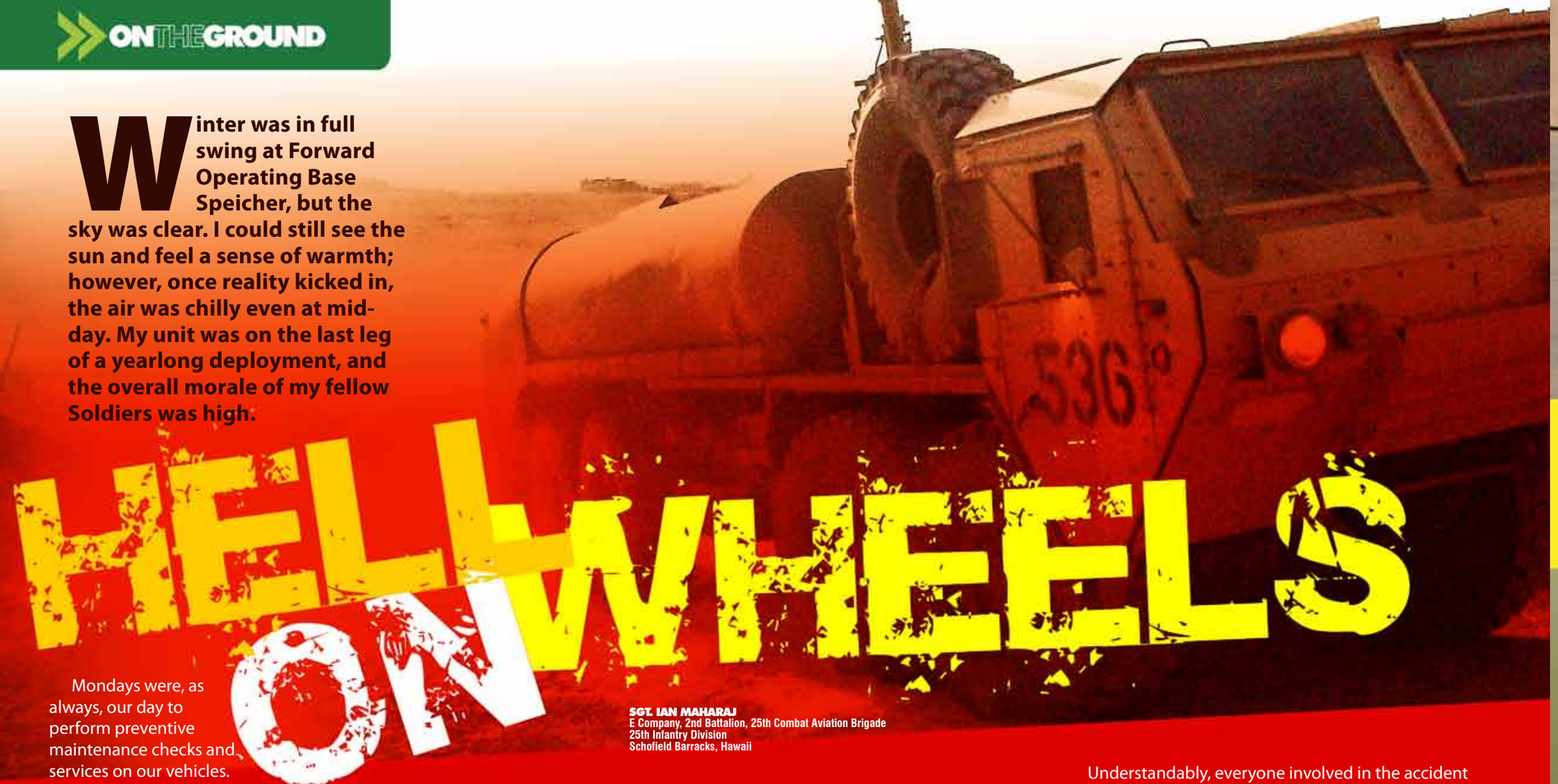
Leaders also can't forget about new "toys" their Soldiers might have received as holiday gifts. Many well-intentioned spouses and parents excitedly purchase big-ticket items like firearms and all-terrain vehicles for their Soldiers, forgetting that a lack of training and experience can result in devastating accidents. Approximately one Soldier died in negligent discharge incidents immediately following the holidays every year during the past five years, and alcohol use was confirmed in at least three of those accidents. Leaders should ensure Soldiers receiving gifts like weapons, ATVs or dirt bikes complete proper training and gain experience in controlled instructional environments through classes offered on post or by a reputable training organization off the installation.

The USACR/Safety Center stands ready to help Leaders in any way possible. We're midway through the annual Safe Fall/Winter Campaign, which contains numerous multimedia tools ideal for safety boards, unit publications and safety briefs. The POV/POM Toolbox, located along with the MMP site on the POV Safety home page at https://safety.army.mil, is an invaluable resource for Leaders looking to engage with and educate their Soldiers on vehicle and motorcycle safety. The Firearms Safety Techniques challenge, an interactive tool that simulates weapons handling in a variety of scenarios, is another great tool available on our website. While none of these products takes the place of hands-on training or engagement, they do provide a fantastic start to effective safety programs.

You'll see in our fiscal 2011 wrap-up article on page 22 of this issue that our Army just finished another positive year for safety, but we cannot afford to rest. Leaders and Soldiers staying engaged are the primary reason for these positive results, and I ask for your continued engagement. Thank you all for what you do every day — your hard work shows in the face of every healthy, safe Soldier in your formations. Keep up the great work, and I look forward to seeing what 2012 brings!

Army Safe is Army Strong!

WILLIAM T. WOLF
Brigadier General, USA
Director of Army Safety



HELL ON WHEELS

Winter was in full swing at Forward Operating Base Speicher, but the sky was clear. I could still see the sun and feel a sense of warmth; however, once reality kicked in, the air was chilly even at mid-day. My unit was on the last leg of a yearlong deployment, and the overall morale of my fellow Soldiers was high.

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Mondays were, as always, our day to perform preventive maintenance checks and services on our vehicles. This came with the task of having to drive halfway across camp to refuel our vehicles when necessary. I liked this task. I was a private first class, and doing anything that involved driving big vehicles was great.

One of my battle buddies recognized my eagerness to drive and volunteered to be my truck commander when an opportunity for me to get behind the wheel presented itself. After performing PMCS on a Heavy Expanded Mobility Tactical Truck, I got the vehicle dispatch and headed to the fuel point. Along the way, my buddy and I talked about what we were going to do once we got home. I had a feeling this was going to be a great day.

After topping off my vehicle with fuel, we headed back to the motor pool. There was only one major road to and from the fuel point, but there were many side roads around the camp — all of them feeding back into the main road. About 10 minutes out from the motor pool, I happened to notice a 5-ton troop carrier cruising down one of the side roads about to merge onto the main road I was traveling. I knew there was a stop sign posted at the upcoming intersection for the merging lane, but for some reason I had a feeling the troop carrier wasn't going to stop. Anticipating a collision, I swerved onto the shoulder of my lane.

> "Thankfully, **EVERYONE** involved in the accident was **WEARING SEAT BELTS**."

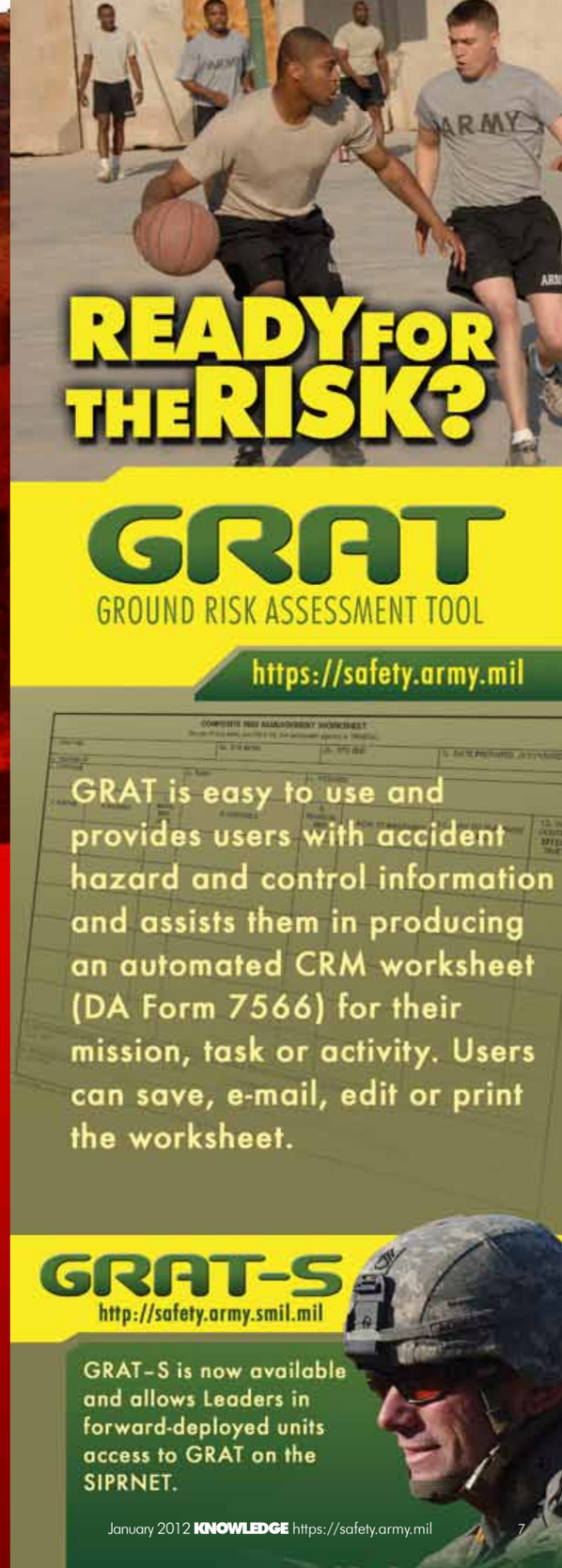
It happened quickly … the other truck didn't stop and we collided hard, with dust flying everywhere. The force of the collision knocked me out for a few seconds. When I came to, my buddy was gone. At this point, I was scared. After I hopped out of the vehicle, relief washed over me when I saw him safely sitting on the ground. My next thought focused on the passengers in the 5-ton. Not surprisingly, it was totaled. After all, it was really no match against a 38,000-pound-plus HEMTT. The scene was a mess; there were fluids, vehicle parts and pieces strewn everywhere.

Understandably, everyone involved in the accident was shaken up a bit. We gathered our gear and started to discuss the accident. I learned the operator of the other truck was from another camp and not familiar with ours. He also ignored the stop sign, resulting in the crash.

Passersby stopped to assist us, and soon the military police were there too. Soldiers from my unit notified our battalion, and the safety officer showed up shortly thereafter. It was good to see familiar faces; something like this had never happened to me before. I was relieved there were no serious injuries. My buddy did receive cuts on his hand and leg, but otherwise he was OK. Thankfully, everyone involved in the accident was wearing seat belts.

As a new driver, I learned a valuable lesson that day: Speed limits and traffic signs are there for a reason, so always obey them. I thank God I was driving the speed limit and was alert enough to anticipate the other driver's actions.

Today, as a sergeant, I always stress to my Soldiers that they need to drive not only for themselves, but for others on the road too. I feel fortunate that I am here to tell this story and able to serve my country in this great organization we call the U.S. Army.



SET UP FOR SUCCESS

CHIEF WARRANT OFFICER 4 A.J. "BUD" KENNEY
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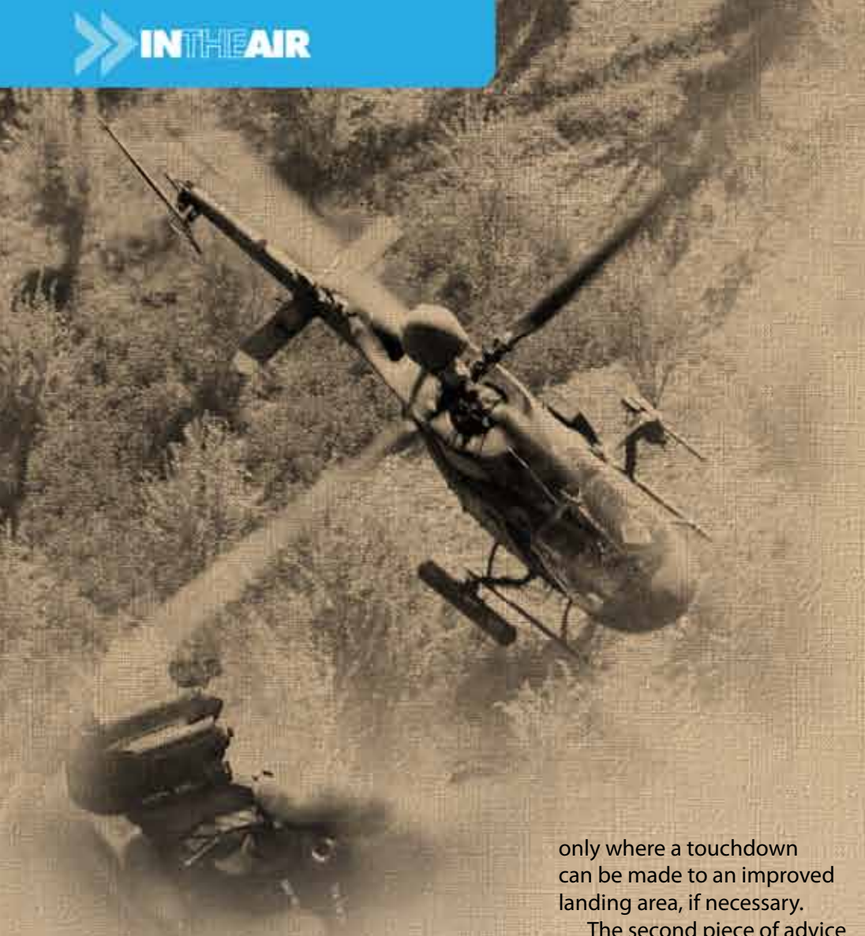
Pages 2-40 through 2-42 of the latest edition of the OH-58D Maintenance Test Flight Checklist outline the procedure for conducting an autorotation RPM check. This check has changed very little, if at all, since I went to the Maintenance Test Pilot Course in 1998. It consists of conducting a maneuver which places the aircraft in an autorotative state so the autorotation RPM can be measured. The maintenance test pilot performs a simple mathematical calculation, taking into account both the weight of the aircraft and the density altitude. The MTP then adjusts the main rotor pitch change links to achieve the desired RPM if a correction is required. It's not rocket science.

As stated earlier, this check has not changed since I've been an OH-58D MTP and, as far as I know, it's the same check used since they first started building the OH-58D. However, the method of training for this maneuver has changed for students going through the MTPC. The Directorate of Evaluation and Standardization has some key safety points for every MTP we work with at Fort Rucker or when we are visiting units in the field. There have been three Class A accidents in recent years related to this check. If you are an OH-58D MTP, please take the following advice to heart.

When discussing this maneuver, we like to tell the test pilots to set themselves up for success. What this means is to plan for the worst during the check. Do not assume the engine is going to come back to life at the bottom of the autorotation just like it has hundreds of times before. I will be the first to admit that during my time as a junior MTP, I made that assumption. I can recall making the cross-country flight from Fort Carson, Colo., to the National Training Center at Fort Irwin, Calif., where we knew we would have to make an autorotation RPM adjustment due to the decrease in altitude. Before arriving at Bicycle Lake Army Airfield, we climbed over the Mojave Desert and rolled off the throttle to take the measurement. Fortunately, the engine always responded and I didn't have to attempt a successful touchdown autorotation to the desert floor.

Other than my own personal lack of experience at that time, the only excuse I can make is I was trained to do the check that way. Up until recently, the OH-58D MTPC had always trained this maneuver on two grass strips



> What this **MEANS** is to **PLAN FOR THE WORST** during the check.

in the south maintenance test flight area on Fort Rucker. This maneuver is now trained in the traffic pattern at Dothan Regional Airport so the student pilot can align the aircraft with an actual runway. Here's your first piece of advice: Conduct this maneuver only where a touchdown can be made to an improved landing area, if necessary.

The second piece of advice goes out to the currently deployed MTPs. This one deals with the weight of the aircraft at the time of the maneuver. Set yourself up for success by reducing the weight of the aircraft as much as possible before you do this check. That means taking the rockets out of the launcher, removing the Hellfire missiles or pulling that ammo can full of .50 caliber rounds. Remember also that 300 pounds of fuel weighs the same as 300 pounds of ammo. If you are conducting a general maintenance test flight, try to save this check for last so you are as light as possible when you do it. To give you some perspective, the "Slick" aircraft used for contact training at Fort Rucker weighs between 4,500 and 4,600 pounds with a full bag of fuel. Touchdown autos are conducted day-in and day-out on these aircraft without incident. The closer you can get to that weight, the better your chances are at surviving an engine failure.

The third and final piece of advice deals with heeding the second warning associated with this check. This requires the MTP to select an entry altitude that allows a power recovery by 500 feet above ground level. The reason for this warning should be obvious in that it gives the MTP time to plan an autorotation to the ground in the event of an actual engine failure. It could also apply to a mistake if the MTP forgot to roll the throttle back on before increasing collective to establish a climb. The "Throttle Warning" message will display at 400 feet AGL if the throttle is below 92 percent throttle position. However, the MTP's first warning indication will most likely be the LOW ROTOR audio when attempting to add power to establish the climb prior to 500 feet AGL. Regardless, adhering to the warning will give you the time you need to either fix the mistake or conduct a successful touchdown auto.

Applying these three simple steps may someday keep you from damaging an aircraft beyond repair or even save your life. This should be the goal of every pilot. As many of you know, Corpus Christi Army Depot, Texas, is in the process of building more OH-58D helicopters. Unfortunately, we continue to destroy them faster than they can repopulate the fleet. One last thing, even if you are not an OH-58D MTP, this advice still applies to all aviators conducting any type of power-off maneuver. Stay safe!

DON'T COUNT ON LUCK

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I was 18, airborne and invincible. I'd just received my enlistment bonus and decided it was time to get some transportation. I got one of my fellow troopers at Fort Bragg, N.C., to take me to the nearest Suzuki dealer. I wanted to buy a 650 GSL motorcycle, but my credit wasn't good enough to qualify for a loan, so my only option was to pay cash for a 450 GSL. Being the highly intelligent and experienced (translate that to young and dumb) person I was, I quickly purchased the motorcycle. After a short lesson on how to ride by the salesperson, I was on my way.

Within four hours, I stopped at the company orderly room to visit a friend who was pulling duty as the charge of quarters runner. Afterward, as I was pulling out of the parking lot, I managed to dump the bike and break a lens cover — not a very impressive performance for my first day of riding. It finally dawned on me that maybe there really was a good reason for taking motorcycle safety training.

Looking back, I realize how lucky I was I didn't kill myself. The truth is I was safer jumping out of a perfectly good aircraft than I was riding on that motorcycle. I'd been trained to jump out of airplanes, but I hadn't been trained to ride a motorcycle. There was a Motorcycle Safety Foundation course available at the time, but my own arrogance kept me from taking it. As far as motorcycle riding goes, I was more lucky than skilled in the beginning.

Unfortunately, a young trooper who joined my fire team a couple of years later wasn't as lucky. One day after the last formation, Pvt. Green (not his real name) asked me to help him with a decision. He'd also received a bonus for going airborne and was trying to decide whether to put the money in the bank or buy a motorcycle. A friend of his in the headquarters platoon had recently bought a bike and was encouraging him to get one so they could ride together. I told him about my riding experiences and suggested he put his money in the bank, emphasizing that would be the wisest choice. He promptly thanked me and said he agreed.

A couple of days later, he appeared with a new Honda motorcycle. I was surprised and asked him what happened. Inside I already knew the answer; he'd buckled under the pressure from his friend to buy the bike. I told him to take the rider safety course and to be careful on the road. He told me that he would and that he'd bought the most expensive helmet at the store, just in case.

A little more than a month later, I received a call at home from the person pulling CQ duty. He told me Green had died in a fatal motorcycle accident while riding with his friend. Apparently, a car in the left lane hit Green's friend, who, in turn, struck him. Losing control, Green dumped the bike and struck the curb with his helmet. The impact was so strong it cracked the helmet and caused him severe head trauma. Sadly, he never even made it to the emergency room.

Green never took the motorcycle safety course. If he had, he might still be here today. His was the first memorial I'd attended where I personally knew the person that the rifle, boots and helmet represented. It was the most poignant moment in my life when I heard the roll call and he was not there to call out his name.

Things have changed a lot since I began riding in 1980. Fortunately, riders now are much more aware of the importance of riding safety. Today in the Army, we have a mandate that all Soldiers and Army Civilians who ride must first receive MSF-based training. Yet even so, we still suffer losses from motorcycle accidents. I still ride and always have my MSF training card on me. If Green had taken the training, maybe he'd still be riding today.

There is a saying that goes something like, "We know the moment when we were born, but we don't know the moment when we will die." I can tell you that getting safety training before you ride is the best way to ensure that latter date comes much later. «

> "I'd been **TRAINED** to jump out of **AIRPLANES**, but I **HADN'T** been **TRAINED** to **RIDE** a **MOTORCYCLE.**"

SOME LESSONS LAST A LIFETIME

JAMES ARRIOLA
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A while back, I heard about a story of a child accidentally shooting his father and wondered, "How could that happen?" It brought back a memory from my younger days when I was growing up in the Philippines. I was about 12 years old, and my parents left my brother and me with an uncle for a vacation.

We'd been there about two weeks when my 12-year-old cousin proudly showed us his father's M16 rifle. Before handing me the rifle so I could get a closer look, my cousin took out the magazine and placed the safety lever on safe.

I raised the butt to my shoulder and aimed it outside. I had no idea how a rifle worked and I pulled the trigger, pretending to shoot targets. After watching me for a few minutes, my cousin wanted to show me how it worked. He grabbed the rifle from me, switched off the safety and pulled the trigger. BANG! Smoke filled the room as we stared at each other in shock. Almost immediately, we heard my uncle screaming and saw him running toward us.

As it turned out, the last time my uncle fired the rifle, a round automatically loaded in the chamber. Not knowing this, my cousin thought that the rifle was safe by simply removing the magazine. Although spared from my uncle's beating, the idea of accidentally shooting somebody — or being shot — stuck with me for the rest of my vacation. In fact, the incident still resonates with me today.

Now that I'm one of the "safety guys," I tend to run this scenario through my head. I try to make sense of it all and wonder what we could've done differently. We were young and didn't recognize the danger of handling a weapon. The rifle should've been locked up and not accessible to us. My uncle also should have talked to us about the dangers associated with handling a gun.

This incident taught me a valuable lesson at a young age and made me realize the importance of educating others — Soldiers, Civilians and Family members — on weapons-handling safety. We were lucky no one was shot that day, and my experience truly made an impact on how I view and do things to this very day. I'm a firm believer in learning from life-changing events. Learning from those mistakes may one day keep us from ending up seriously injured or, even worse, dead.

DID YOU KNOW?

No one is immune to weapons-handling accidents. In fiscal 2011, five Soldiers died because of negligent discharges. Remember to THINK weapons safety:

- **T**reat every weapon as if it is loaded.
- **H**andle every weapon with care.
- **I**dentify the target before you fire.
- **N**ever point the muzzle at anything you do not intend to shoot.
- **K**eep the weapon on safe and your finger off the trigger until you intend to fire.

The U.S. Army Combat Readiness/Safety Center developed the Range & Weapons Safety Toolbox, https://safety.army.mil/rangeweaponssafety, to aid commanders and Leaders in the management of range operations and safe weapons handling. The toolbox provides a centralized collection of resources to establish and maintain safe and effective training programs for ranges and both military and privately owned weapons. Visit the site today!

PERFORMANCE CONSIDERATIONS – AS REQUIRED

CHIEF WARRANT OFFICER 5 GREG TURBERVILLE
Directorate of Evaluation and Standardization
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In the past decade, Army aviators have responded to our nation's needs in uncertain and high-risk environments by deploying many times to Iraq and Afghanistan. Flight crews routinely perform complex tasks and missions while operating at high altitudes, in high temperatures and at higher gross weights. Exposure to these challenges has been a learning experience for our community. Unfortunately, we are still repeating the same mistakes.

One of the causal factors most often cited in accident investigation findings is crew error or complacency in power management. In this context, consider power management to include the entire spectrum of factors and influences affecting the ability of the aircraft to overcome gravity.

This article is not intended to restate the training aspects all Army aircrews should be aware of through routine pre-deployment training events. My intent is to explain an initiative undertaken by the Directorate of Evaluation and Standardization to address the trend in a more direct manner.

The Army already teaches aviators how to fly confidently in Afghanistan, emphasizing power management and wind current navigation at the High Altitude Mountain Environmental Training and the Colorado National Guard's High Altitude Army Training Site. Pilots address individual and collective training repeatedly in Readiness Level Progression and collective training events. However, while aviators are receiving essential and valuable training, Army aviation continues to experience an inordinate number of aircraft performance-related accidents.

DES has initiated a change to all currently fielded Army rotary-wing aircraft operators' manuals and checklists. This modification is quite simple and designed to create a mandatory crew event triggered at a critical time in the flight profile. In the next or near-term change publishing cycle, the revision will be added to the last step of the -10 checklist "Before Landing Check" for all mission design series. The text will be the same for all rotary-wing airframes to highlight the aerodynamics situation applies to all.

The change will include the addition of the step, "Performance Considerations – As Required." This addition will be the last step of the before-landing check. The goal is to make sure crews are aware of aircraft and environmental performance considerations that could negatively affect the transition from the en route phase of flight to the arrival phase. Because this additional step is now to be included in the before-landing check, the reminder or annunciation of the check will occur with each approach or transition the aircrew initiates to approach to land or hover.

The intent of the check is not to imply the aircrew must entirely re-compute its arrival performance planning card data. Rather, the additional check is intended to highlight the fact that the crew should reconsider the situational factors affecting power management prior to arrival or transitioning below effective translational lift. Those factors include things such as aircraft power available (in-ground effect and out-of-ground effect), power required, wind direction and speed, obstacles, gross weight, surface condition, rising terrain, escape or go-around plan, etc.

By augmenting this step in the operator's manual, it effectively removes it from the realm of optional training considerations or tactics, techniques and procedures and makes it a required crew action check. DES hopes this simple checklist modification will serve to alert future crews to consider performance factors before getting into a compromising arrival or pre-landing situation and potential accident scenario.

FYI

The before-landing check does vary by MDS, but here's the AH-64 with the new addition as step 5, for example:

BEFORE LANDING CHECK
- **Weapons Systems – Safe**
- **ASE – As required**
- **Tail Wheel Button – Lock**
- **Park Brake – As required**
- **Performance Considerations – As required**

ONE RIDE TOO MANY

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Marine Corps Air Station Yuma
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It was Dec. 26, 2004, and I was four months into my retirement from the U.S. Marine Corps. I had a great job making more money than I thought possible and was living the "American Dream."

I had neighbors that most folks would envy. They had all the "toys" — boats, jet skis, all-terrain vehicles and sand rails. Many times, I watched my neighbors load those toys onto trailers and head out for some fun, while I stood there pondering, "Where did I go wrong?"

All that changed during the 2004 holiday season. My wife gave me the green light to buy two ATVs and a trailer to transport them. I was shocked and jumped at the chance to buy a pair of 2003 Suzuki Z400s. They were the fastest models on the market at the time, and my neighbors were impressed. The look on my daughter's face was priceless. Kayla was happy to have a top-of-the-line ATV, complete with full safety gear, to go riding on Christmas Day.

Considering that Kayla had never operated any kind of vehicle, we started out slowly — riding behind our house in the open desert. She seemed to pick it up quickly. The excitement of getting her own ATV for Christmas and knowing her friends were out riding theirs was too much to handle. She asked me to take her to the sand dunes so she could join them. Not wanting to spoil a great "bonding" moment with my daughter, I said "yes" before considering the potential consequences. The next morning, we loaded our ATVs onto the trailer and drove 20 minutes to the sand dunes.

Kayla was proud, standing there in her new riding gear as I offloaded our ATVs. She heard her friends excitedly talking about how lucky she was that her first ATV was such a fast one. Once I had the ATVs off the trailer, Kayla jumped on hers and was ready to go. While I was putting on my gear, I overheard my next-door neighbor warning her that it can be very dangerous on the dunes with all the other riders. He suggested she go slow and get used to her ATV before getting too aggressive.

Our neighbor led us and a couple of Kayla's girlfriends from school, Nikki and Candy, to an area relatively free of other riders. Kayla followed me, doing a great job shifting through the gears and smiling like I hadn't seen in a while. We got to our location, parked on top of a sand dune and turned off our ATVs. The girls wanted to ride in a small area nearby. I had no problem with that as long as they stayed close and we could see them. I was happy to see Kayla was riding within her limits, so I began to relax and talk with my neighbor.

About five minutes later, I noticed Kayla was getting more confident — enough that I began to worry. I was about to go out and tell her to slow down when I saw her flying downhill wide open in third gear. At the bottom of the hill, she hit a small lip that launched her 20 feet through the air. I was shocked when the ATV hit the ground, bounced her over the handlebars and then ran over her. When I got to her, she was unconscious. It took about 20 seconds for her to come to. You can imagine how I felt, being the one who allowed her to get into that situation. We were blessed to see her stand up and walk away with nothing worse than a sore back.

The drive home was a long one, as I thought about how seriously she could have been injured. The only thing I'd done right during the entire process was to buy her the proper riding gear. I'd made sure she had a Department of Transportation-certified full-face helmet, long-sleeve padded shirt, riding pants and gloves. I'm 100 percent convinced that Kayla's helmet saved her from traumatic injuries.

Looking back, I wish I'd talked to the motorcycle experts at the base safety office before buying the ATVs. I'm sure they would have

suggested I buy a smaller, less-powerful model for her. What was I thinking when I bought a "race-ready" 400cc quad for a 13-year-old girl who'd never ridden before? I'm certain this accident wouldn't have happened had I purchased a less-powerful quad.

I was also at fault for thinking the 20-minute instructional ride I took her on Christmas Day was enough to make her a competent rider. At that time, I wasn't aware of the training available through the ATV Safety Institute (http://www.atvsafety.org/). I would highly recommend any parents purchasing an ATV for themselves or their children take that training.

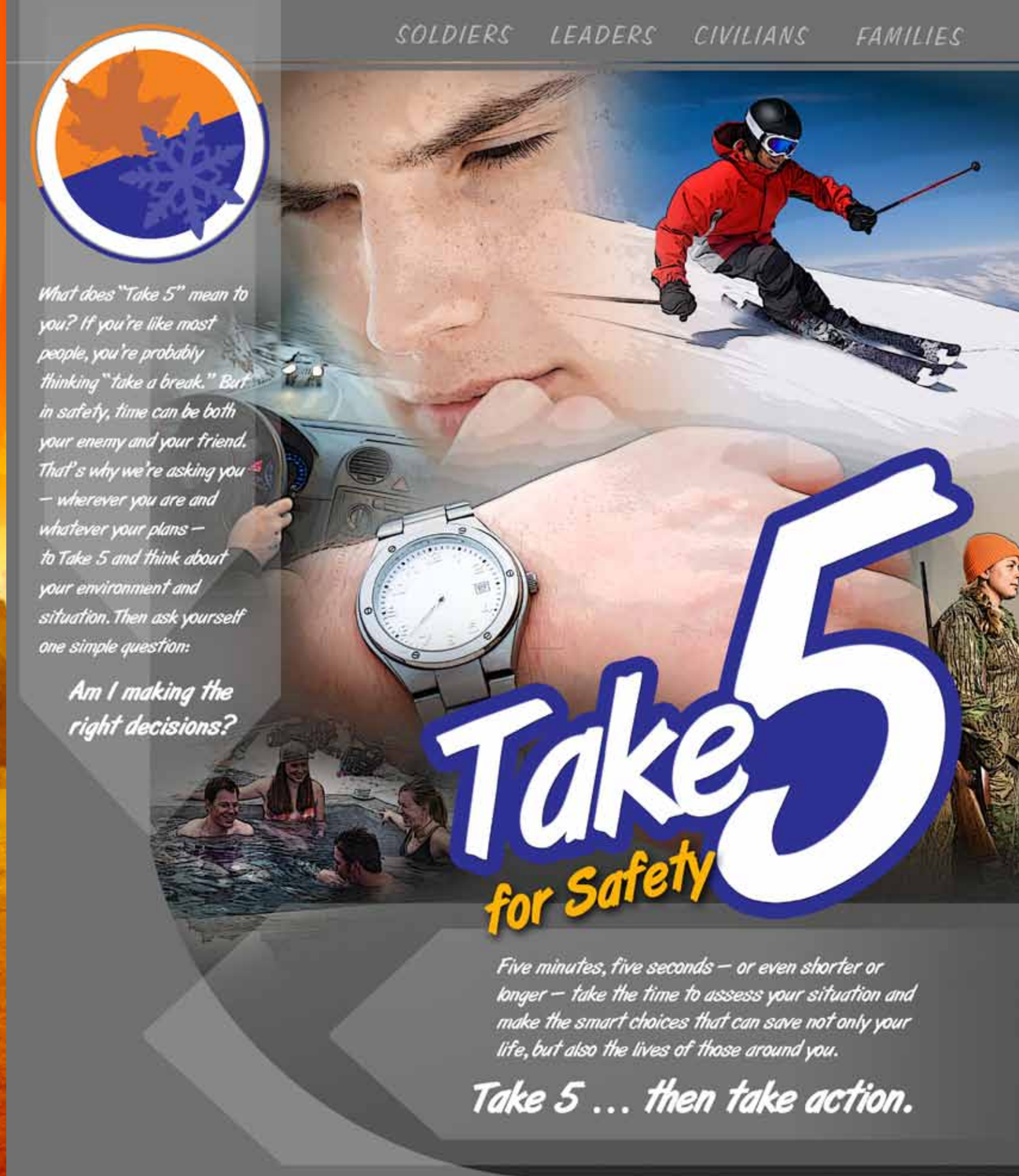
It was just a matter of time before my wife heard about the accident from our neighbors — Kayla and I sure didn't want to tell her. What amazed me was Kayla didn't protest when I sold both ATVs three days later. She'd already had one ride too many.

I learned an important lesson the hard way. When it comes to beginners on ATVs, the best way to end "upright" is to start off right. You can always go bigger when your skills get better. «

WINTER RIDING TIPS

Because of their ability to handle challenging terrain and conditions, ATVs are popular during the winter months with hunters, recreational riders and others who need the enhanced mobility they provide. Here are some useful safety tips to keep you safe during the winter months:

- **Install a set of hand warmers underneath your hand grips along with one for the throttle switch.**
- **Add an ATV windshield to keep you warmer by blocking the wind from your head, torso and hands.**
- **Use tires designed to get a good grip on the snow. Remember, wider tires have less ground pressure than narrower ones and are more likely to float and swim.**
- **Check your owner's manual to make sure you have the proper engine oil for the winter temperatures. This is especially important when starting a cold engine.**
- **Stay warm by dressing in multiple layers. Avoid wearing cotton. Instead, wear a thin, moisture-wicking base layer to avoid trapping sweat against your skin. Next, wear a thicker, warmer moisture-wicking layer. Finish up with a waterproof, breathable garment that will protect you from the wind while letting sweat escape.**
- **Wear warm, flexible footwear so you can effectively operate foot levers and pedals for shifting and braking.**
- **Wear a helmet — motocross helmets are an excellent choice — and install a breath box to prevent your face shield from fogging. Consider using goggles or face shields with dual-pane lenses that won't fog up.**



What does "Take 5" mean to you? If you're like most people, you're probably thinking "take a break." But in safety, time can be both your enemy and your friend. That's why we're asking you — wherever you are and whatever your plans — to Take 5 and think about your environment and situation. Then ask yourself one simple question:

Am I making the right decisions?

Take 5 for Safety

Five minutes, five seconds — or even shorter or longer — take the time to assess your situation and make the smart choices that can save not only your life, but also the lives of those around you.

Take 5 ... then take action.

ARMY STRONG. U.S. ARMY COMBAT READINESS/SAFETY CENTER https://safety.army.mil ARMY SAFE IS ARMY STRONG A BAND OF BROTHERS & SISTERS

How Did Our Army Do?

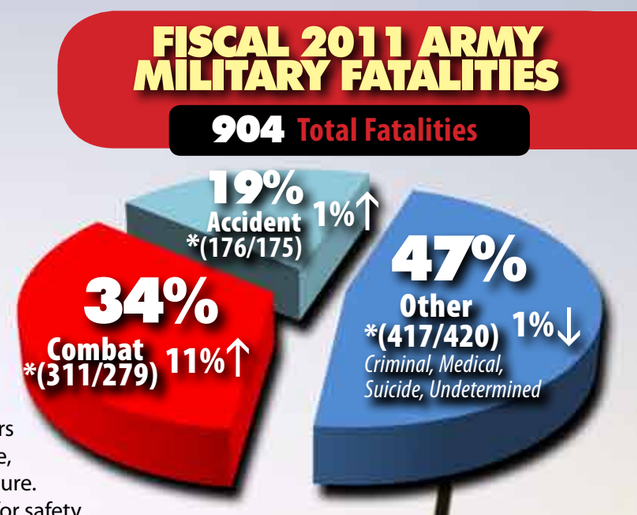
BRIG. GEN. WILLIAM T. WOLF
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Our Army continues to make progress on safety: Accidental fatalities were once again at near-peacetime levels during fiscal 2011, with dramatic reductions in on-duty losses leading the way.

Now more than ever, Leaders from the squad up the chain of command "get" safety and its importance to the mission. They've gotten back to the basics of leadership — becoming more involved in pre-combat checks and inspections, taking a more active role in training and simply ensuring every standard is met, every time. By getting the mission done and doing it safely, today's Leaders are setting a superb example for the Soldiers in their charge, especially those who will assume leadership roles in the future.

Individual Soldiers are also assuming the responsibility for safety. Leaders can't be everywhere all the time, and the positive reductions we've experienced on duty show Soldiers are doing the right things: using restraint systems in tactical vehicles, exercising self discipline, following standing operating procedures on the job and mitigating hazards through composite risk management. Battle buddies are also making a difference by looking out for one another. Accidents can kill just as surely as the enemy in combat, a fact Soldiers have increasingly recognized during the past few years.

Every success comes with challenges, however, and off-duty fatalities remain our Army's most pressing safety concern. Privately owned vehicle accidents and other off-duty mishaps cost 136 Soldiers their lives in fiscal 2011, eight more than the previous year. Combined with the 40 Soldiers who died on duty, our Army began fiscal 2012 short 176 good men and women. But by learning from both the good and bad behind us, we can save even more lives in the year ahead.



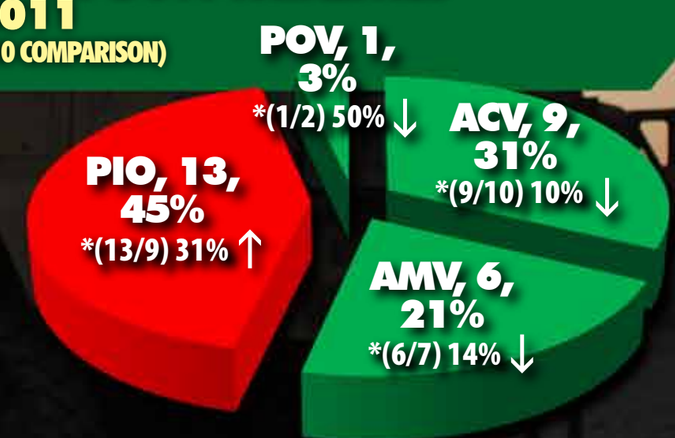
On Duty Ground

The positive downward trend in on-duty fatalities carried through fiscal 2011, with double-digit reductions experienced across nearly all accident categories. On-duty privately owned vehicle fatalities dropped by half, and aviation-related fatalities were down 31 percent for the year. Soldier fatalities in both Army motor vehicles and Army combat vehicles fell by 10 percent or more (14 percent and 10 percent, respectively), leaving personnel injury-other as the only category that experienced an increase during the year (up 31 percent).

But as remarkable as these strides in on-duty accident reduction are, critical safety issues remain prevalent in the spectrum of tactical operations. Especially urgent are rollovers in the MRAP family of vehicles, specifically the M-ATV. Eight Soldiers died in M-ATVs during fiscal 2011, all as the result of rollovers (a ninth Soldier was killed in an MRAP Cougar rollover). The demand for these vehicles in Afghanistan has increased exponentially during the past few years, and their role in operations there is invaluable. Therefore, it is vital that Leaders focus on driver licensing and crew drills, including egress training, to keep their vehicle crews in the fight.

Many iterations of MRAP vehicles are available to commanders, and drivers must be licensed and trained in the MRAP variant they are required to operate. There is no single driver training program that qualifies a Soldier in all vehicles; rather, separate training must be completed when a driver is assigned to a vehicle he or she is not licensed to operate. No two MRAP types are the same, and just because a Soldier has experience with one does not mean he or she can safety operate another. Past accidents have shown this is a fatal assumption, and Leaders must put a stop to unqualified driver assignments while enforcing standards like speed limits and restraint system use within their vehicle crews. Released in early 2011, Training Circular 7-31, MRAP Family of Vehicles Driver Training, is the new Army standard for MRAP training. All commanders with MRAPs in their vehicle fleets must ensure their drivers are being trained to TC 7-31 standards and that junior leaders are enforcing the directives contained therein.

Egress training is just as important to MRAP safety. After a similar device helped dramatically reduce rollover fatalities in HMMWVs, the Army



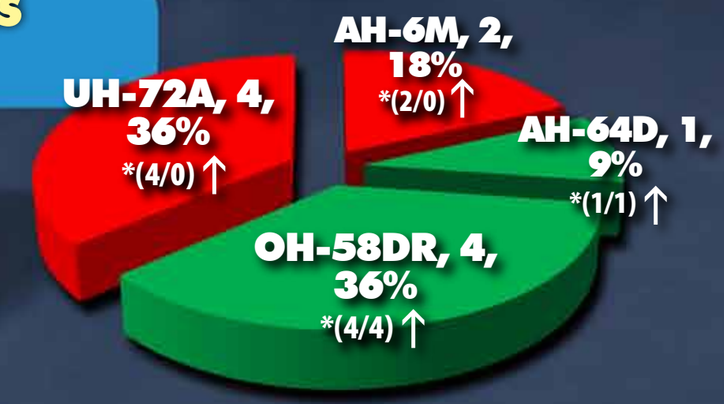
*Note: Fiscal Comparison (Fiscal 2011/Fiscal 2010)

introduced the MRAP Egress Trainer at certain sites in theater and installations worldwide. These trainers offer crews the toughest, most realistic training available outside actual combat operations and also provide Leaders a prime opportunity to engage with their crews on the importance of restraint systems, thorough PCC/PCI and proper mission planning. Leaders of units rotating to theater must make time in their training schedules for crews to practice rollover drills in one of these important training devices.

Leaders should also take advantage of additional MRAP safety resources readily available to them. Complementing TC 7-31 is the U.S. Army Combat Readiness/Safety Center's MRAP Safety Awareness toolkit, available online at https://safety.army.mil. The kit includes a training support package, safety presentation, graphic training aid, equipment stowage guide and informational videos highlighting a variety of MRAP safety issues. However, training guides and videos are merely tools; Leaders must continually reinforce the importance of rollover drills, restraint system use and adherence to standards on every mission, for these are the only proven methods for both surviving and reducing MRAP accidents.

Equally troubling as MRAP rollovers is the increase in on-duty PI-O fatalities.

AVIATION FATALITIES FISCAL 2011
(WITH FISCAL 2010 COMPARISON)



Note: Fiscal Comparison (Fiscal 2011/Fiscal 2010)

With four and three fatalities respectively, negligent discharges and Airborne accidents comprised more than half the on-duty PI-O losses during the year, followed closely by heat injury deaths. Rigid standards exist for clearing tactical weapons, and Leaders must ensure these standards are followed to the letter to prevent needless losses. The USACR/Safety Center's Range and Weapons Safety Toolbox contains standards information and training aids to assist Leaders in ensuring their Soldiers stay safe around tactical weapons. Leaders should also closely follow weather forecasts and heat advisories when their Soldiers are working or training outdoors. Precautions like rest and hydration breaks provide some measure of protection against the heat, but Leaders must ultimately make the call in deciding when their Soldiers are most in danger of injury or death.

On Duty Air

An overall 31 percent decrease in aviation fatalities was one of the best news stories of fiscal 2011, Army aviation's safest year since Sept. 11, 2001. The UH-60 community delivered the most notable number of the year — a 100 percent reduction in fatalities, down to zero from 11 in fiscal 2010. Crew deaths in the AH-64 and OH-58 airframes remained steady with the previous year, leaving the AH-6 and UH-72 as the only areas of increase in 2011 (one fatal accident with multiple fatalities was recorded for each aircraft). Considering the demand for aviation assets in theater, training hours logged in CONUS and the conditions in which Army aviation operates worldwide, fiscal 2011's safety performance is a stellar achievement.

One interesting aspect of aviation's 2011 numbers is that, despite a decline in Class A and B accidents, Class C mishaps actually increased during the year. However, this can be seen as a positive indicator of healthy learning organizations applying lessons learned from lesser incidents and mitigating risk more effectively. Aviation provides an excellent example for the rest of the Army in that, while accidents can and do happen, crews continually learn from and overcome mistakes made by others.

Training remains the most important element of safe aviation operations, whether in theater or at home. During the past several years, the Army has increased its investment in high-altitude and environmental training opportunities, using the HAMET program and HAATS. This training closely replicates conditions in theater and provides an excellent opportunity for pilots and crews to familiarize themselves with safe operations in adverse environments. Leaders must also take advantage of the Army's Aircrew Coordination Training-Enhanced program, which prepares crews to work together and communicate clearly in every situation. This program should be treated as an ongoing training tool rather than an annual requirement, for communication is the most critical skill any crewmember can possess in the cockpit. Additionally, Leaders should stay focused on emerging aviation trends to prevent similar accidents from occurring within their own formations.

As important as manned aircraft are to our Army's missions, we cannot forget the contributions of unmanned aircraft systems to

our operations overseas. While UAS accidents might not seem as urgent as manned incidents with fatalities, the fact is these systems are vital combat multipliers costing into millions of dollars, and we lost 12 in fiscal 2011. Leaders must ensure their units have up-to-date reporting systems in place and a trained safety officer designated for reporting duties when mishaps occur. Only by sharing this data can we report lessons learned and keep our fleet of UAS available to commanders and Soldiers.

Off Duty

As in years past, off-duty safety posed the biggest challenge for our Army in fiscal 2011. Overall fatalities were up 6 percent from the previous year, due to an 80 percent increase in off-duty PI-O deaths (led by accidental drownings) and an 18 percent increase in fatal motorcycle accidents. Deaths in sedans and other POVs (truck, SUV, van, moped and ATV) were down 16 percent collectively, and pedestrian fatalities — a critical concern during fiscal 2010 — dropped 67 percent for the year. These successes show we can turn the arrow down off duty, but not until Leaders and Soldiers tackle the ongoing problem of indiscipline.

Speed, lack of seat belts or personal protective equipment and alcohol use remain among the top three factors cited in fatal off-duty accidents. In fact, during fiscal 2011, several Soldiers killed on motorcycles were confirmed to have been traveling at speeds of 90 mph or more. An even greater number involved Leaders at the rank of E5 and above. This is an untenable situation for our Army, and Leaders at every echelon must put a singular focus on curbing off-duty indiscipline within their ranks.

The easiest way for Leaders to engage with their Soldiers on riding safety is the Motorcycle Mentorship Program, an ongoing initiative that pairs experienced and novice riders together to foster safe riding habits. With the vast number of Leaders who own motorcycles and enjoy riding during their off-duty time, the MMP offers a perfect opportunity for every junior rider within our Army to learn what right looks like on the road. The POV/POM Toolbox, located at https://safety.army.mil, contains insights and best practices from successful MMP chapters across the Army and tips for Leaders interested in establishing programs on their installations.

New regulatory guidance is also aimed at making our Soldiers safer while riding and driving. The Army Progressive Motorcycle Program, which outlines expanded training events at specific time intervals, was recently mandated by rapid action revision to Army Regulation 385-10, The Army Safety Program. The PMP is comprised of the Motorcycle Safety Foundation's Basic RiderCourse, Military SportBike RiderCourse or Basic RiderCourse2 (dependent upon type of motorcycle owned), motorcycle refresher training and sustainment training. By continually re-engaging riders, the PMP promotes safe riding behaviors, refreshes skills and establishes lifelong learning within the Army's motorcycle community. Additionally, Remedial Driver Training (also known as "Roadrageous") is a training program that targets Soldiers with driving offenses and known high-risk driving behaviors. More information on both programs is available via the Privately Owned Vehicle Safety Tab at https://safety.army.mil.

Fiscal 2011's exponential increase in off-duty PI-O accidents also merits immediate Leader attention. Of the 27 Soldier deaths that fell within this category, nearly half occurred on the water. Early in the year, the U.S. Army Training and Doctrine command released "Off Duty, On Guard," a great tool Leaders can share with their Soldiers to heighten awareness of off-duty risks. Through a series of interactive vignettes, users assume the identity of a specific Soldier and have to make decisions on his or her behalf. The tool shows the consequences of bad decisions on the water, on the road and at home and is an excellent eye-opener for Soldiers who might not see risky behavior within themselves. Off Duty, On Guard is available on the USACR/Safety Center website.

Conclusion

Reducing preventable accidents during a time of war is unprecedented in our Army's history, yet our Leaders, Soldiers, Families and Civilians have done so nearly every year since fiscal 2005. This accomplishment offers proof of the power of engagement and CRM. Leaders and Soldiers clearly get safety on duty, and cultivating that same mindset off duty remains our challenge for the new year. By working together, staying engaged and using all the tools at our disposal, we will keep our Army both safe and strong!

Editor's note: All data cited in this article were current as of Dec. 5, 2011. Late reports or modifications to existing data may change statistics and findings.

BLACK HAWK - 1 PLASTIC TARP - 0

NAME WITHHELD UPON REQUEST

The sun had just started to peek out over the horizon as our flight of four Black Hawks approached a small Iraqi village. Our insertion team was to conduct a sweep of the village, looking for weapons caches and materials for making improvised explosive devices. We had two AH-64Ds and a Predator with us for support, and two F-16s were nearby in case things got ugly on the ground. We were briefed that while the entire village was unsympathetic to the U.S., they were not expected to resist.

The insertion was not overly complicated, but our four Hawks were split between three different landing zones. Chalks 1 and 2 were to land in a plowed field near a house on the northeast side of the village. Chalks 3 and 4 each had their own small LZ about 500 meters south. I was the pilot in command of Chalk 2. In our pre-mission planning, we studied a lot of satellite imagery and knew exactly what we were looking for.

As we hit our release point, one of the Apaches gave us the call that the LZs were all clear. We gave our insertion team a one-minute warning and continued inbound. The only hazards we identified in the imagery were a small canal and a set of power lines along the north side of our LZ. Our approach was from the south, and even though we weren't flying into the rising sun, we were having difficulty seeing. On short final, we recognized a second set of wires running directly across the center of our LZ and the vegetation had grown up, making the entire south half unusable. Our two options were either to land between the two sets of wires, which were about three rotor discs apart, or to continue north of our intended LZ and land across the canal.

Chalk 1 started their approach between the wires and it looked good, so we picked a spot a safe distance from their left side and started our own approach. My crew and I were focused primarily on the two sets of wires in front of and behind our aircraft. As we lowered the aircraft between the wires, I caught something out of the corner of my eye that made my heart sink with fear. Several long streams of white plastic tarp were rising out of the field beneath the helicopter. Our focus had been on the previously unseen set of wires and, due to poor visibility, we didn't notice that the rows of plowed land beneath us were covered in heavy-duty plastic tarps. We had no time to react as the tarps rose up into our main rotor system.

The helicopter shook violently as the tarps were drawn into our tail rotor. My PI (a more experienced aviator) halted our descent to see if we could climb out. He was distressed but never wavered on the controls. Our torque shot up to 134 percent for a second or two before settling at about 85 percent (never exceeding our transient torque limits). The crew chiefs remained calm and immediately started explaining the situation to us, keeping their eyes on the wires, our passengers and the LZ.

> "The crew chiefs **REMAINED CALM** and immediately started explaining the situation to us, **KEEPING THEIR EYES** on **THE WIRES**, our **PASSENGERS** and the **LZ**."

Despite the excessive vibrations, we still had complete control of the helicopter and were able to climb out from between the wires and set it down on the other side of the canal. Our insertion team jumped out to set up a perimeter and I immediately got on the radio. Nobody answered my initial calls, and as I was cross-tuning our radios, I saw two of the Hawks fly by and out of the area.

The last remaining Hawk flew a small orbit around us and landed just off our nose, facing us. I finally reached our flight air mission commander on our internal frequency. He was also a maintenance test pilot and informed us that our tail rotor was a solid white disc of plastic. We briefly discussed shutting down and calling the Downed Aircraft Recovery Team, but they were an hour away and this was hostile territory.

The AMC asked if we could control the helicopter. When we acknowledged we had complete control, he recommended we fly to the nearest forward operating base, which was about 10 minutes away. We decided to give it a shot. I had the insertion team push away from the helicopter for the takeoff in case things got a little crazy. My PI picked it up to a hover to check the stability and then executed a smooth takeoff. About two minutes later, most of the plastic was thrown off the tail rotor and a majority of the vibrations ceased. The rest of the flight to the FOB was uneventful.

Upon landing and shutting down, we surveyed the damage. The stabilator was dented and would need replacing and our FM whip antenna on the tail was torn off. Our crew chiefs removed the rest of the plastic from the main and tail rotors and the AMC/MTP took a good look at everything. We all decided the helicopter was in good enough shape to continue the mission, so we took off to complete the extraction.

If my crew and I hadn't been so focused on the wires, we might have seen the plastic on the ground before it was sucked up into our rotor system. However, the calmness of the crew chiefs, the aircrew coordination between the four of us and the incredible durability of the Black Hawk ensured the mission was completed and everyone returned home safely.

ON THIN ICE

GEORGE WYATT
Installation Safety Office
Fort Campbell, Ky.

It's easy to get that kid-like feeling at the sight of the glittering beauty of snow and ice. In fact, even in my mid-50s, I still find myself getting excited about the prospect of snow. However, I've also learned that snow and ice are not always so grand if we fail to take the proper precautions.

My mother used what I think is an old southern phrase — "all stoved up" — to describe a myriad of sore, painful or aching bones and muscles resulting from overwork or an accident. My hope is you will protect yourself and prevent being all stoved up this winter because of a fall on the snow and ice.

Although statistics vary among national recordkeeping agencies, it is accurate to say that thousands of Americans become victims of snow- and ice-related falls each year. These accidents result in days, months and even years of pain and agony among the U.S. workforce and, in some cases, permanent disability and death. We even experience these types of accidents among our federal working populations on and off Army installations. Each year, Soldiers and Civilians injure themselves by slipping on ice, resulting in lost workdays. Typical injuries related to these type falls include pelvis, arm, elbow and wrist fractures. Other common injuries include concussions, facial bone fractures and broken teeth.

It's easy to prevent these types of accidents with a little awareness and some precautions. One of the simplest safety measures you can take is wearing the proper shoes for the weather conditions. Common sense should tell us that smooth leather- or plastic-soled shoes are not conducive to walking safely over packed snow and ice. Instead, wear a nonslip rubber- or neoprene-soled shoe or boot that has grooves. Rubber overshoes or boots are fine if they have similar specifications. If you must wear street shoes to work, consider carrying them with you and changing when you get inside the building. The same logic applies to women with respect to heels.

Another thing to consider is the temperature of the soles. The heater in your car warms your shoes to a comfortable temperature. When you reach your snow-packed or icy parking place, human nature tells you to fling open the door and make a mad dash to the warmth inside. Here's what happens when you do this: The warm shoe sole hits the ice and immediately melts the surface, creating a thin pool of water between the surface and the shoe and setting up a hazardous condition. Instead, plant your feet firmly on the icy surface while still sitting in the car seat for a few moments until the shoe temperature cools down and doesn't pool water under your shoes. Maintain a good two-hand hold on the car door when you get out and establish firm footing before walking.

You should also dress for the occasion. Winter conditions call for more clothing. In addition to providing warmth, thick bulky layers will provide protection in case you fall. Consider a good cold weather hat, thick knit hat or ski hat for warmth and head protection. Gloves, scarves and earmuffs are also useful.

Fresh snow is usually easy to traverse without falling but conditions such as partial melting and packing of the snow can change the situation in short order. Freezing rain, sleet and wintery mix conditions can be particularly hazardous. Remember to treat walking surfaces that look wet or are shaded by trees or buildings as if they're still frozen, even if you have observed melting in other areas.

There are some simple and helpful techniques to remember when walking on packed snow and ice. Choose designated walkways, preferably walkways that have already been deiced. Now is not the time to be taking shortcuts across snow banks and negotiating untraveled areas where hidden obstacles may lurk under the snow and ice. In some cases, walkways may be extremely slippery from ice melting and refreezing. Therefore, the best option for traction and ease of travel could be the grassy area adjacent to the walkway.

Even our best efforts at preventing a fall can fail, so I would like to mention a few techniques you can use to help reduce the risk of injury if you do take a spill. Try to relax the muscles in your body when you fall. If you're falling forward, put your arms in front of your face and turn your head left or right. If you're falling backward, tuck your chin into your chest to minimize the whiplash effect on your neck and the back of the head. If possible, put your hands behind your head. If you fall sideways, allow your upper arm to take the impact. I've had some success in using my hands to break a fall, but others have sprained or broken fingers, wrists and elbows in doing this. I normally don't recommend using the hands and arms for anything other than protecting the face and head during a fall, especially for those of us who may be a little older and carry a little more bodyweight than we should.

Hopefully, you will find something that I have mentioned useful for this and future winters to help keep you safe when the skies open up to freezing rain, sleet, snow or the wintery mix.

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am i a good driver?

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Sacramento, Calif.

According to the National Highway Traffic Safety Administration, there were 32,788 deaths on American roads in 2010. That means one person died on our roadways every 16 minutes that year. The good news is that according to NHTSA, fatalities have been declining during the past five years. Experts believe this is due to the strict enforcement of seat belt and car seat use, improvements in overall vehicle design safety and increased attention to safety when building or refurbishing roadways.

However, when it comes to staying out of the statistics column, the responsibility rests on you. Ask yourself truthfully, "Am I a good driver?" Most of us would answer, "Yes, I'm a great driver." But are we? The truth is most of us, perhaps without thinking about it, engage in dangerous activities while driving that make us anything but great, safe drivers.

Ask yourself these questions:

- Do I text, dial a cellphone or engage in a thoughtful conversation with someone in the vehicle?
- Do I play with the radio or CD player while driving?
- Do I fish around in the glove compartment looking for something?
- Do I comb my hair or check or apply makeup?
- Do I engage in "dashboard dining" — trying to eat and drink while going down the road?
- Do I light a cigarette or fumble for a dropped lighter?
- Do I read maps or enter locations into my GPS while driving?
- Do I discipline restless children in the car or feed them snacks?
- Do I stare in amazement at how bad others are driving and then get upset or frustrated and drive aggressively?

Unfortunately, most of us can answer "yes" to at least a few of these questions. According to www.smartmotorst.com, there are four factors that contribute to accidents:

1. Equipment failure
2. Roadway design
3. Poor vehicle maintenance
4. Driver behavior

More than 95 percent of motor vehicle accidents involve some degree of driver behavior combined with one of the other three factors. When the facts are truthfully presented, however, driver behavior is usually the primary cause. Many accidents are caused by driving distracted, excessive speed or aggressive driver behavior. So what can each of us do to stay safe?

- Make sure you use cellphones safely. The safest thing is to make your calls before you set out. If you receive a phone call while you are driving, let the caller leave a message and then pull over to a safe area and return the call. Drivers who use hand-held devices are four times as likely to get into crashes serious enough to injure themselves, according to the Insurance Institute for Highway Safety.
- Set a good example. Consider how your children might be observing your unsafe habits and assume your actions are something normal that everyone does. If you don't want your child talking on a cellphone while driving, don't do it yourself.
- Be aware that using a hands-free device can still distract you. In fact, a study done by the University of Utah found using a cellphone while driving, whether it's hand-held or hands-free, delays a driver's reactions as much as having a blood alcohol concentration at the legal limit of .08 percent.
- Stop before checking maps and addresses, looking at paperwork or dealing with similar distractions.
- Plan and map out your trip before you leave home.
- Don't allow arguments or stressful conversations with passengers to divert driver attention from the road.
- We know better than to drive while under the influence of alcohol or drugs, but fatigue, stress and strong emotions such as anger can also impair the ability to drive safely.

So, how do you rate yourself now? Are you as great a driver as you first thought, or are there some areas where you need to improve? The good news is if you're reading this article, there's still time to change your driving habits and stay out of the statistics column. The responsibility is yours.

Putting the Cold on Hold

ART POWELL
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When it comes to the cold, not all injuries are created equal. Due to their training and issued gear, Soldiers are considerably better prepared than the general population to stay safe in even the coldest conditions. That's why it might come as a surprise to learn frostbite — among the most serious of all winter ailments — is the leading cold weather injury reported in our Army.

Whether they work inside a heated building or stay outside for long periods of time, all members of the Army team must be aware of the hazards of cold weather. Training for and preventing cold injuries is a command and leadership function, as well as a personal responsibility for every Soldier. And while the cold makes job-related tasks more difficult, it does not make them impossible. They key to overcoming harsh conditions and successfully completing the mission lies with understanding cold weather injuries and how to prevent them.

The Armed Forces Health Surveillance Center offers the following descriptions of the most common cold weather injuries:

Frostbite

Frostbite is the freezing of skin tissue that can extend through all layers of the skin and freeze muscle and bone. Frozen skin may turn red and then gray-blue with blisters. In the worst cases, the skin dies and turns blue-black; at this stage, amputation is often required. Deep frozen skin feels "wooden" to the touch with zero mobility of the affected body part. Instantaneous frostbite can occur when skin comes

PREVENTING COLD INJURIES

Individuals can safely work and play in cold environments if they are properly prepared and understand basic control measures to prevent cold weather injuries.

Keep the Body Warm

- Keep moving by exercising big muscles (arms and legs) to keep warm.
- Avoid alcohol use. Alcohol impairs the body's ability to shiver and gives a false sense of warmth.
- Avoid all tobacco products, as they decrease blood circulation to the skin.
- Eat all meals to maintain energy.
- Drink water or warm non-caffeinated fluids to prevent dehydration. Drinking warm liquids like decaffeinated tea and hot chocolate that contain sugar provides energy to help the body generate additional heat.
- Limit the amount of time spent outside on extremely cold days and periodically move into warm areas such as warming tents.

Wear Proper Clothing

- Wear several layers of loose clothing rather than one or two bulky layers. Air trapped between layers acts as insulation against the cold. Layers may also be removed if you become too hot. Additionally, loose clothing allows blood to circulate to the extremities.
- Ensure all clothing is in good condition, clean and dry. Change wet, damp clothes immediately.

Protect Feet

- Carry extra pairs of socks and change damp socks immediately. Use foot powder to help absorb moisture.
- Avoid tight socks and boots, and never over-tighten boots or shoes.
- Wear overshoes to keep boots and socks clean and dry.

Protect Hands

- Wear gloves, mittens or gloves and mittens with inserts to avoid frostbite injuries.
- Keep gloves and mittens clean and dry. Change damp gloves immediately.
- Warm hands under clothes if they become numb.
- Avoid skin contact with snow, fuel or bare metal that has been exposed to the cold for extended periods.

Protect Head, Face and Ears

- Wear a hat. As much as 70 percent or more of the body's heat is lost through an uncovered head.
- Cover your face and ears with a scarf to prevent frostbite injuries. In combination, a hat and scarf protect the skin and retain body heat.
- Warm your face and ears by covering, but not rubbing, with your hands.
- Wear sunscreen.
- Exercise facial muscles to help maintain circulation.

Protect Friends and Family

- Watch for signs of frostbite and other cold weather injuries in your buddies.
- Ask about and assist with rewarming the feet, hands, ears and face.
- Immediately treat persons showing any signs or symptoms of cold injury.
- Remove sick and injured individuals from the cold; they are very susceptible to cold injuries.

More information on cold weather safety and many other winter safety topics is available on the U.S. Army Combat Readiness/Safety Center website at https://safety.army.mil under the Fall/Winter Safety campaign tab.

into contact with super-cooled liquids, including petroleum, oils and lubricants, antifreeze and alcohol, all of which remain liquid at temperatures as low as minus 40 F.

Frostnip

Frostnip is the freezing of the top layers of the skin and is considered the first degree of frostbite. Frostnip usually results from short-duration exposure to cold air or contact with a cold object like metal. Exposed skin such as the cheeks, ears, fingers and wrists are more likely to develop frostnip.

Chilblains

Chilblains are nonfreezing cold injuries that result from repeated, prolonged skin exposure to cold and wet (high humidity) temperatures above freezing. Exposed skin becomes red, tender and hot to the touch and is usually itchy. These symptoms can worsen to an aching, prickly (pins and needles) sensation and then numbness. Chilblains can develop in exposed skin in only a few hours. The most commonly affected areas are the ears, nose, fingers and toes.

Immersion foot/trench foot

Immersion foot is a nonfreezing injury that results from prolonged exposure to wet conditions between 32 and 60 F or inactivity with damp socks and boots. Immersing feet in cold water, infrequent changing of socks, poor hygiene and allowing sweat to accumulate in boots or gloves will soften the skin, causing tissue loss and often infection.

Hypothermia

Hypothermia is a potential life-threatening condition defined as a general cooling of the body's core temperature below 95 F (normal body temperature is 98.6 F). Hypothermia occurs when body heat loss exceeds heat production due to prolonged cold exposure. Although hypothermia is usually associated with cold climates, it can occur at temperatures well above freezing, especially when a person is exposed to wet conditions for an extended period of time.

Dehydration

Dehydration, most commonly associated with hot weather, is a lack of water in the body. It is very easy to become dehydrated in cold weather, and many individuals fail to drink enough liquids and underestimate fluid loss from sweating. Proper hydration is especially important in cold weather because dehydration adversely affects the body's resistance to the cold, increasing the chance of injury.

"**TRAINING** for and **PREVENTING** cold **INJURIES** is a **COMMAND** and **LEADERSHIP** function, as well as a personal **RESPONSIBILITY** for every **SOLDIER.**"

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Dangerous Slopes

MAUREEN PIKAL
U.S Army Combat Readiness/Safety Center
Fort Rucker, Ala.

One of the many great things about being stationed in Europe is the skiing. Every year, my Family goes on several ski trips. Our battle rhythm is for the kids to take two days of lessons before they get to ski with their dad. Our 12- and 13-year-old children are excellent skiers like their dad; they've been taking lessons since they were 4 and 5. I, on the other hand, am an intermediate skier at best.

Last Thanksgiving, the kids and I went to Zell am See, Austria, for three days of skiing. Unfortunately, like so many military Families, Max and Claire's dad was not with us because he was deployed. After unloading the car, we headed straight to the rental shop to pick up gear. My kids hate this part because they have to keep putting the gear on and off, as the equipment is adjusted specifically for their size, weight and skiing ability. My husband and I also insist the kids always wear ski helmets. They complain, but the rule is they wear helmets or they don't ski.

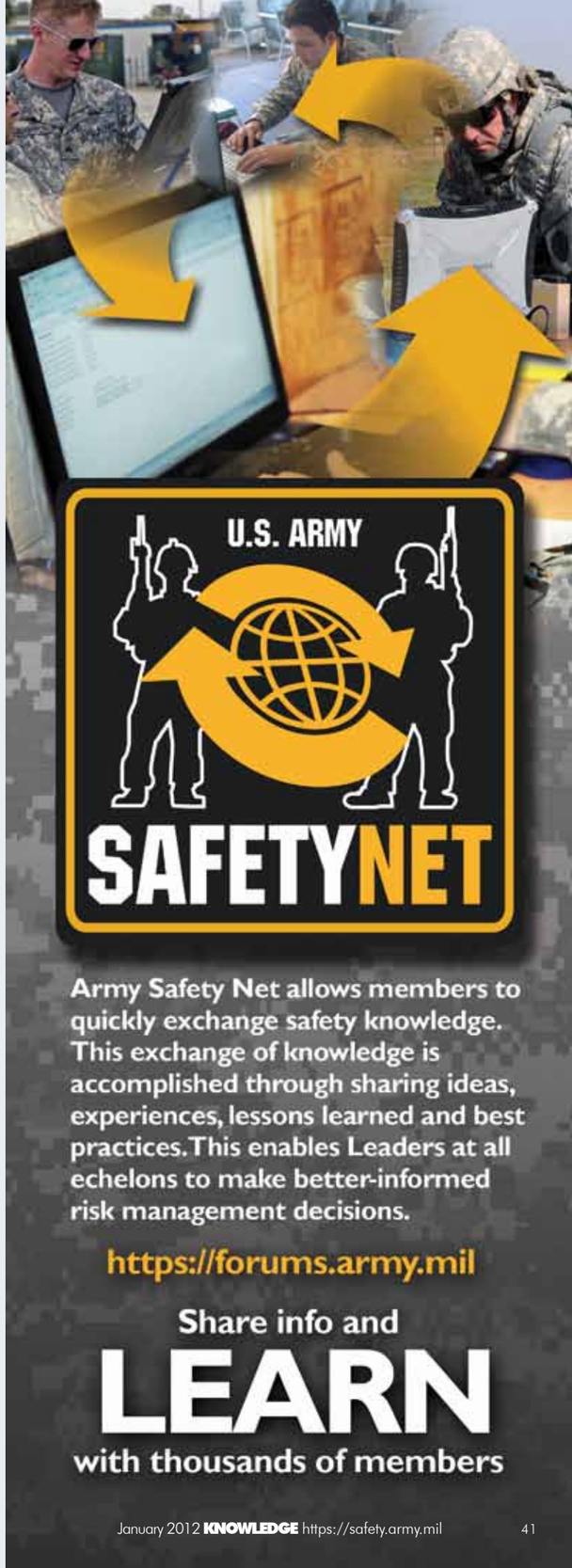
At the end of the first day of lessons, Claire said, "Thanks, mom; I am so glad I had on my helmet because I wiped out so bad and hit my head so hard I would have been knocked out!" Max proceeded to tell me how bad and how often Claire wiped out. Undaunted by a day full of wipeouts, they then informed me they didn't want to ski with me on the third day because "my skiing stinks." Realizing they wouldn't have fun on the "easy" slopes, I agreed and arranged for a private instructor take them skiing the last day.

The next day, I went up on the mountain with the kids and their instructor. When they hit the ski lifts, I parked myself, with book, at the lodge. We later met for lunch, and the kids and instructor were off again.

Not long after, I heard my son screaming, "Mom! Mom! Claire got run over!" I looked up and saw a very animated ski instructor coming toward me with Claire in tow. The instructor was explaining in a mixture of English and German that she did not pursue the two skiers who did this because she was concerned with Claire's condition. After I verified both my children were OK, I listened to the rest of the story. An out-of-control skier hit and knocked Claire to the ground. His buddy, who was also out of control, ran over Claire's head with his skis. Claire did not get up and laid on the ground until the ski instructor came to her. Claire's ski helmet had a huge two-and-half-inch-wide gouge running from the back to the front-right temple. The two thugs who ran Claire over stopped, looked at her on the ground and then took off.

The most effective way to prevent any ski injury is to know the rules of the slopes, take lessons and ski within your abilities. If you ski, chances are you will collide with another skier, snowboarder or some stationary object (maybe a tree or pole). Why wouldn't you wear a helmet? I am 100 percent positive Claire would have died or been permanently brain damaged had she not been wearing a ski helmet that day.

Click the image above with a smartphone for more information about safety on the slopes.



The ice cream CHASER

BLANCA CAMPOS
Fleet Support Branch
Redstone Arsenal, Ala.

Let's face it; a lot us enjoy a few "cold ones" from time to time. But what about following those beers with an ice cream chaser? For most, it probably doesn't sound too appetizing, does it? Well, my strange cravings one night, combined with my ignorance and peer pressure, nearly got the best of me. Here's my story.

One of my buddies invited several of my friends and me to a party she was having at her house. After drinking for a while, we started a challenge to see who could hold the most beer. I really didn't want to play because I had to drive back to my place. However, peer pressure got the best of me. I'm the kind of person who has a hard time turning down a challenge.

Our beer drinking escalated to playing cards and taking shots. I'd have never guessed drinking so much would make me hungry for ice cream. However, as we kept drinking, my craving for ice cream got worse, so I decided to sneak out of the party to get some.

As I was stumbling to get my shoes on, one of my sober friends realized I was heading out the door and asked, "Where are you going?" Caught red-handed, I simply looked up and said, "Uh, nowhere," and went back and joined the party. Still, I wanted some ice cream and, as the party went on, I tried sneaking out again. However, another friend caught me this time. "Stro," as we called her, also was drunk when she asked me, "Where are you going?" I told her, "To the store," and she immediately asked, "Can I come too?"

I was buzzed, so I wasn't thinking too clearly and decided to take her and another of my drunken friends with me. As I drove to the store, I remember seeing a police car. However, I was apparently driving normally enough not to be pulled over.

We finally arrived at the store and went directly to the ice cream section. We grabbed some ice cream and jumped back into the car to head back to the party. Unfortunately, one of the problems with being buzzed is you tend to forget things. Without realizing it, I'd left my cellphone on the store counter. As we headed back to the party, I decided to have a little fun and started doing "donuts" in an empty parking lot. When I decided I'd had enough, we drove back to the party.

As it turned out, trying to sneak back into the party didn't go as planned. Some of our friends noticed Stro and I were missing and went outside to look for us. They got worried when they didn't see my car and I didn't answer my phone, which I'd accidentally left at the store.

When we entered the house, everyone just looked at us. Because I was buzzed and not in complete control of my senses, I didn't realize what I'd done was wrong. They asked me why I'd left and why I hadn't answered the phone. All I could say was, "I don't know." Ultimately, the cashier answered my phone and told my friends where I'd left it.

My friend drove me to the store to pick up my phone and took me home. The following morning, I was told what I had done. I couldn't believe I'd been dumb enough to jeopardize my life and those of others the way I did. I was lucky I didn't cause an accident and kill myself or someone else. I could have lost everything just because I'd decided to drink and drive.

Now when I go out and know I'm going to drink, I either have a designated driver or give my keys to someone who is not drinking. Looking back at that night, I should have asked myself whether drinking and driving was really worth it. And, most importantly, I should have asked myself while I was still sober enough to give a straight answer.

LOST

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, email safe.knowledge@conus.army.mil.

AVIATION

AH-64D

CLASS C

- The aircraft contacted the ground during a single-engine demonstration, resulting in damage to the turret assembly and main landing gear.

OH-58C

CLASS B

- The aircraft engine failed during flight training while at 200 feet above ground level and 70 knots indicated airspeed. The aircraft touched down hard in a field following an autorotation, resulting in a severed tailboom and damage to the landing gear.

UH-60L

CLASS C

- The aircraft main rotor blades made contact with the tail rotor driveshaft during a dust landing.

RQ-7B

CLASS B

- The unmanned aircraft failed to reach optimal airspeed for takeoff and crashed.

GROUND

ACV

CLASS A

- The gunner in a Mine Resistant Ambush Protected vehicle was killed when it overturned while towing another vehicle to maintenance. The Soldier was wearing a gunner restraint system.

CLASS B

- An MRAP was damaged when a fire started during a movement. The crew initiated the fire suppression system. One crewmember suffered smoke-inhalation injuries.

Personnel Injury

CLASS A

- A Soldier died of a suspected heat injury while participating in a PT run.
- Two Soldiers drowned when they encountered high-tide conditions while attempting to wade from an islet back to shore. Two other Soldiers were rescued by kayakers.
- A Soldier died after he was found unresponsive in the water. The Soldier had been scuba diving about 50 yards off shore.
- A Soldier was killed when he was struck with a round from the M2 he was clearing.

CLASS B

- A Soldier suffered a permanent partial disability injury when the 12-guage shotgun he was clearing discharged a round into his foot.
- A Soldier suffered a spinal injury when he fell to the ground while participating in recreational repelling.

CLASS C

- A Soldier was injured after falling from a horse during rider certification training.

DRIVING

POV

CLASS A

- A Soldier was killed when he lost control of his vehicle in inclement weather and struck a tree. The Soldier was wearing his seat belt.
- Three Soldiers were killed when the driver lost control of his vehicle in an extended left-hand curve and collided with an approaching vehicle.
- A Soldier died when he lost control of his vehicle, left the road and struck a tree.
- A Soldier was killed when he lost control of his vehicle, went into the median and overturned.

POM

CLASS A

- A Soldier was killed when his motorcycle collided with a car that violated right of way at an intersection. The Soldier was wearing the proper personal protective equipment and possessed a motorcycle endorsement on his license.
- A Soldier suffered permanent total disability injuries when he lost control while negotiating a curve and was thrown from his bike. The Soldier had received both basic and advanced rider training.
- A Soldier was killed when he collided with a sedan at a residential intersection. The Soldier was licensed and wearing the proper PPE, but suffered fatal injuries when he lost his helmet in the collision.
- A Soldier riding with four other Soldiers was killed when he lost control, went off the road and crashed into a tree. The Soldier was wearing the proper PPE.

LOSSES AVIATION — FISCAL 2011 Class A/Fatalities thru November 2011

ATTACK	0/0
RECON	0/0
UTILITY	2/1
CARGO	1/0
TRAINING	0/0
FIXED-WING	0/0
UAS	1/0
TOTAL	4/1

as of Dec. 6, 2011

LOSSES GROUND — FISCAL 2011 Class A/Fatalities thru November 2011

AMV	4/1
ACV	2/1
PERSONNEL INJURY (includes weapons-handling accidents)	4/4
FIRE/ EXPLOSIVE	0/0
PROPERTY DAMAGE	0/0
TOTAL	10/6

as of Dec. 6, 2011

LOSSES POV/POM — FISCAL 2011 Class A/Fatalities thru November 2011

CAR	7/7
SUV/JEEP	2/2
TRUCK	2/2
MOTORCYCLE	5/4
PEDESTRIAN	1/1
OTHER* (*Includes vans, ATVs, snowmobiles and bicycles)	0/0
TOTAL	17/16

as of Dec. 6, 2011

Fiscal Year 2011: 15 — Three Year Average: 17

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Family engagement kit

https://safety.army.mil

On the home front, a Soldier's "battle buddy" is often his or her Family. Check out the new Family Engagement Kit to learn how you can look out for the safety of your Soldier. The kit features a variety of tools, including videos, real-life stories, resources and tips to keep your Soldier safe.

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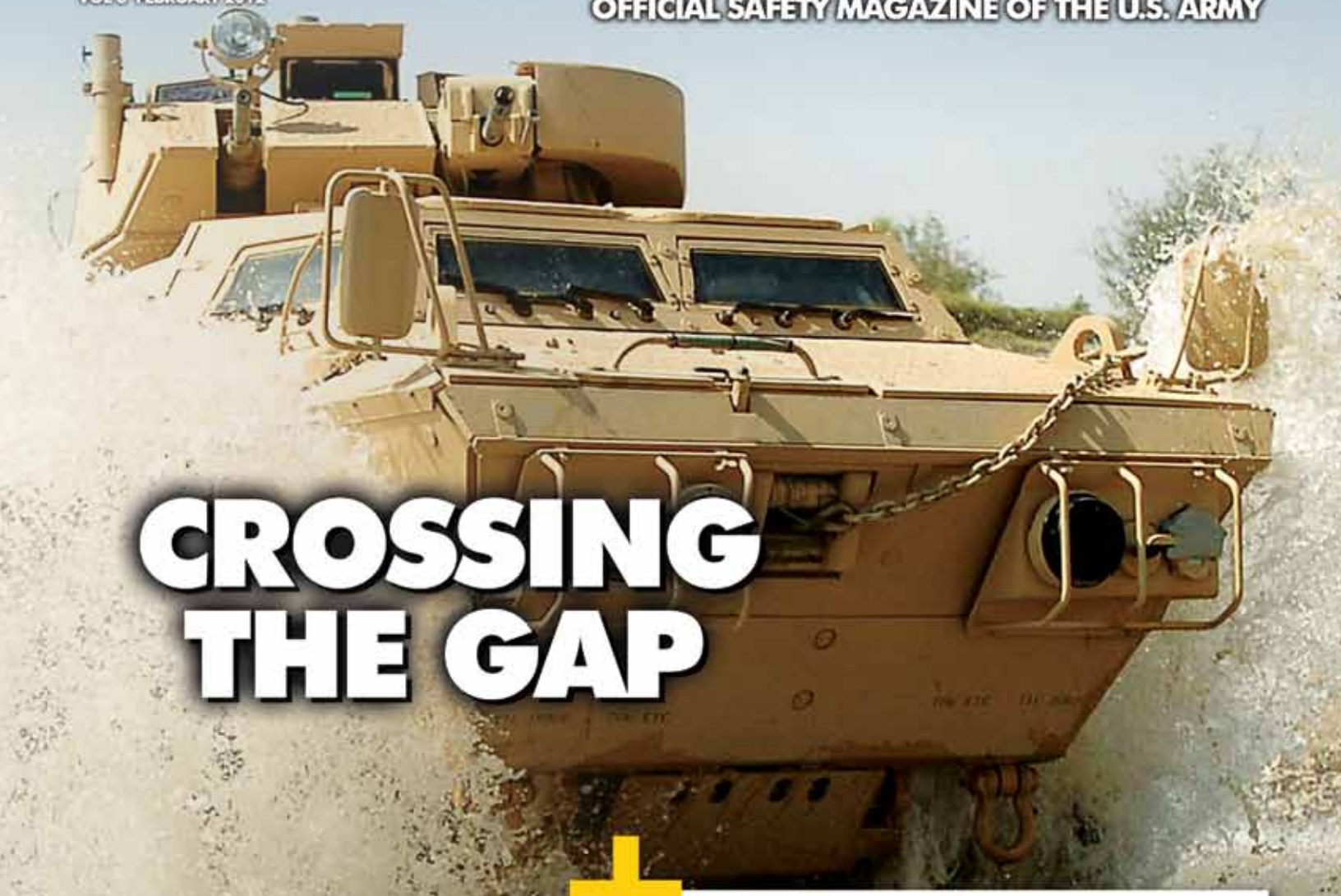
PREFLIGHT STEP 1: PLACE YOUR RING IN THE OFF POSITION

KNOWLEDGE

VOL 6 FEBRUARY 2012

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY



CROSSING THE GAP

+

DISTRACTED DRIVING

- CREW COORDINATION
- LASER SAFETY
- MOTORCYCLE MENTORSHIP

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LEADERS SOLDIERS CIVILIANS FAMILIES

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Mission statement: The United States Army Combat Readiness/Safety Center (USACR/Safety Center) supports our Army by collecting, analyzing and communicating actionable information to assist Leaders, Soldiers, Families and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please email comments to **safe.knowledge@conus.army.mil**.

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Knowledge provides a forum for Soldiers, Leaders and safety professionals to share best practices and lessons learned and maintain safety awareness. The views expressed in these articles are those of the author and do not necessarily reflect the official policy or position of the U.S. Army, Department of Defense or the U.S. Government. Contents are specifically for accident prevention purposes only. Photos and artwork are representative and do not necessarily show the people or equipment discussed. Reference to commercial products does not imply Army endorsement. Unless otherwise stated, material in this magazine may be reprinted without permission; please credit the magazine and author.

> "Our **ARMY** has **COME** a **LONG** way in **DOING** things **RIGHT** and doing **THINGS** safely. It's due to our entire **TEAM** — Leaders, Soldiers, Families and Civilians — **WORKING TOGETHER** to save lives."

PLAYING THE GAME

To the outside observer, safety may seem like a numbers game of statistics and comparisons. But those of us in Army safety know those numbers represent something very real: Soldiers who have died in accidents and will never return to their units or Families. We've been fortunate during the past several years that our numbers have been on a downward trajectory — smaller totals mean good news for the Soldiers, Family members and Civilians doing our Army's hard work every day. Engaged leadership has paid dividends for the safety and well being of our force, and Soldiers are getting better and better at taking care of each other both on the front line and at home.

Numbers don't lie, however, and there's no doubt fiscal 2012 got off to a rough start for safety. At the close of the first quarter, accidental fatalities were up 6 percent from the same timeframe a year before. To put that statistic in perspective, think about a squad of Soldiers, then imagine half of them gone in an instant. That's approximately how many more lives our Army lost from one year to the next in just a single quarter, and that's a number none of us should be willing to accept.

I firmly believe this setback is temporary, an anomaly we will correct quickly and decisively by doing what we know works — engaging with our Soldiers. From the squad up, Leaders should be talking to their Soldiers about everything that can take them out of the fight, starting with indiscipline behind the wheel of privately owned vehicles. As tragic as the first quarter's POV accidents are, they provide valuable lessons learned on issues like speed, seat belts and drunk driving. Like the rest of us, nearly every Soldier in our formations has acted recklessly on the road at one time or another, taking the same risks as their fallen peers but escaping serious harm.

Talking through recent accidents with your Soldiers offers them the opportunity to take a hard look at themselves and their mistakes, to see how close they have come to disaster and find ways to curb risky driving behaviors and ultimately save lives. Especially critical are junior Leaders — each of you must take an active interest in your Soldiers' off-duty activities and encourage an open-door policy regarding safety concerns. Engagement will become increasingly important in the coming weeks, as winter transitions to spring and Soldiers spend more and more time on the road in their POVs and on their motorcycles.

If you aren't already subscribed, the Army's Preliminary Loss Reports are a great engagement tool available to Leaders and safety personnel. Released after a fatal accident is reported to the U.S. Army Combat Readiness/Safety Center, each PLR contains facts, risk mitigation tips and suggested engagement techniques to enhance the dialogue between you and your Soldiers. You can begin receiving PLRs by email today by filling out a simple form available on the USACR/Safety Center website, https://safety.army.mil. Also be sure to check out the other tools available on the site, including the recently updated Individual and Battle Buddy Risk Assessments. These printable cards are designed to help Soldiers identify factors that could put them or their buddies at risk for an accident and include resources where Soldiers can seek assistance. The assessments are accessible via the "Leader's Corner" tab at the bottom of the USACR/Safety Center home page.

Our Army has come a long way in doing things right and doing things safely. It's due to our entire team — Leaders, Soldiers, Families and Civilians — working together to save lives. By staying focused and engaged, we can overcome our first quarter losses and make 2012 our safest year yet. In our business, there's no better number to be at than zero — and that's a goal we can all stand behind!

Army Safe is Army Strong!

WILLIAM T. WOLF
Brigadier General, USA
Director of Army Safety

Reading the Road

EARNIE EAKINS
Driving Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Motorcycling is a lifelong learning process. Far too often riders think after a few years and a few thousand miles that they know it all. That concept can be fatal.

Permanent change of station moves happen often enough to be somewhat of a setback to a rider's learning curve. At that point, they need to be aware that what they have learned isn't lost — but they may need to modify their skills for the road conditions at their new duty station. The focus of that learning process is adjusting to the different road surfaces and climatic conditions. Super high-powered motorcycles (sport bikes) are affected most and are the most common motorcycles among Soldiers.

Let's take a look at this situation pragmatically. Assume you are a rider in the southeast. The climate is warm and tires tend to adhere to surfaces much better than in other areas of the country. Because roads don't freeze during the winter, their surfaces are also in better condition. Riders often get accustomed to a certain riding style after a few years, not realizing that may have to change at a new duty location. When those moves occur, they must understand how to ride in their new geographic location, not just fall back on what they've always done. However, getting adjusted requires both time and discipline on the rider's behalf.

That discipline includes learning to read road surfaces, as they may be constantly changing. While some surfaces — such as crowned roads — remain relatively similar throughout the country, the degree of crown may vary at different locations. Motorcycles tend to drift away from the direction of the crown. This condition is the same with an automobile, but is much more pronounced with a motorcycle. Two-lane highways are crowned to the centerline, while four-lane highways are crowned to the median. Sport bikes are affected by road crowns more than standard motorcycles or cruisers, so changing motorcycles or riding a borrowed bike can be a recipe for disaster.

Today, because of repairs, there are patches on most road surfaces. Some have raised surfaces, while others may be concave. Each patch causes a differing reaction; no two are alike. When crossed at highway speed, riders must be aware how their motorcycle will react. Crossed at excessive speed, these patches can change the rider's direction of travel. That's not a problem if the rider is reading the surface and knows what to do. However, if the rider is daydreaming, or there are other factors such as cracks, tar snakes or weather, the result can be disasterous.

Painted lines, dribbled fuel or oil, railroad tracks, grates, covers, the color of the road surface (is the road blacktop or concrete?) and pavement grooves are other examples of potentially dangerous surfaces. Riders must read road conditions and react accordingly. Because of their sensitive handling, sport bikes react to changes in road surfaces faster than other types of motorcycles, which isn't necessarily a bad thing. Quickness is why most sport bike riders chose that type bike in the first place. This makes it important that all motorcyclists know their bikes' characteristics, react accordingly and stay focused while riding.

While riders may be fully capable of negotiating road conditions in the area where they are accustomed to riding, a PCS changes the dynamics of these surfaces. Changing to a different type motorcycle or a more powerful version all contribute to the way a rider needs to read and react to road surfaces. Staying aware of the changing road conditions and showing the discipline to adjust to them is fundamental to safe riding.

Lack of Communication

LARRY KENNEDY
U.S. Army Training and Doctrine Command Safety Office
Joint Base Langley-Eustis, Va.

While stationed in the southwest as an explosive ordnance disposal specialist, one of our unit's missions was to clear Air Force aerial bombing and gunnery ranges of unexploded and "practice" ordnance. Practice ordnance, while sounding innocuous, contains explosive charges to produce a white marking smoke and can, depending on the particular round, have explosive charges that are equivalent to 5 pounds or more of high explosives.

Our mission was to conduct a "five-year" clearance of an aerial bombing and gunnery range located north of the base. This would require additional temporary manning support. The clearance would last a month and involve a border-to-border clearance.

Many support issues needed resolution for the mission to be successful, not the least of which was how to conduct a clearance on a very busy range used by active duty, Army Reserve and National Guard forces. Previous attempts to clear this particular range had failed due to mission requirements, and the clearance was rescheduled several times. Therefore, sorely needed range maintenance had been allowed to slide. Sound familiar?

To address the maintenance issues, we coordinated with range maintenance personnel. We cleared critical target areas first, allowing personnel on the range to repair and build targets in these areas while we conducted clearance operations in other sections of the range. Due to terrain features (deep canyons, ravines, mountains) and the size of the range, this option was believed to offer the most safety for personnel and still allow necessary maintenance actions to be accomplished.

Good radio communications were a key element of this operation; personnel were required to be under cover when disposal detonations were executed. A range control section attached to White Sands Missile Range controlled access to the range we were clearing, which was about 60 miles from the base. WSMR conducted radar surveillance of the airspace and cleared aircraft onto and off the range.

At the beginning of the operation, we set up a base camp and emergency evacuation helipad on a bluff overlooking the airfield target complex. We set up an antenna, aligning and adjusting until we could get reliable communications with range control. Communication with range control was via handheld FM radios, truck-mounted radiotelephones and tactical radios. We also had manual signaling devices (signaling mirrors) and red and yellow smoke for emergencies.

As the airfield target complex was the highest priority for clearance and maintenance, we cleared this area first. By the second week of the clearance, we were able to allow range maintenance to conduct their operations, repairing and rebuilding this target complex. They were in constant communication with my unit and range control, and although we had to put them under cover several times, they were able to accomplish the mission a week ahead of schedule. As they were clearing off range, they told range control that range maintenance was completed. Range control marked this statement on their status board and cleared them off range.

At this time, my unit was in a ravine, pulling out 500-pound practice bombs, and out of communication range. Range control continued to attempt to contact us and at the end of our extended duty day, when we climbed out of the ravine and were on the way back to the base camp, we were asked to confirm that maintenance activities on the airfield were complete. We were tired and looking forward to the end of the day and the cold beverages that were waiting for us. Without clarifying what they were asking, we confirmed maintenance was complete. We then proceeded back to base camp and secured our equipment for the night.

The route we took to exit the range for our billets meandered through the airfield target complex.

DID YOU KNOW?

The Army Range Safety Program provides procedures to enhance safe, realistic live-fire training, enabling the Army to train as it fights; enhance combat readiness; protect personnel and property; avoid injuries; and prevent fratricide in combat. If you want to know more about this program, contact the program manager at 757-878-0484 or 757-878-0516. The link for the Sustainable Range Program website is available in the U.S. Army Combat Readiness/Safety Center's Range & Weapons Safety Toolbox at https://safety.army.mil/rangeweaponssafety.

As we were about halfway through, our vehicles were "buzzed" by a flight of four F-15s. We attempted to contact range control, but radio communication on the FM radio was intermittent, and the phone number that we were to use, when dialed on the radiotelephone, did not go through. The aircraft flew out of sight and we decided to exit the complex back to the base camp.

As we turned our vehicles around, we heard a detonation on the far side of the complex and saw an aircraft pulling out of its bombing run. We immediately popped red smoke and abandoned the vehicles, seeking cover. The second aircraft, which was on approach, saw either the red smoke (or one of his wing mates did) because he aborted his run and initiated an emergency climb. They reassembled formation and did a flyover of our position. We again popped red smoke and used our signaling mirrors. They departed the range and we evacuated back to our base camp. We were able to contact range control from that location and found out that when the shift changed, the oncoming technician had not been properly briefed. When we confirmed maintenance was complete, range control assumed all personnel had left the range and cleared the flight of F-15s onto the range.

Range safety depends on reliable communications and a complete understanding of terminology and procedures to operate on ranges. Because this was an aerial bombing and gunnery range, one might assume we would have a means to communicate with aircraft. We did not. It was not listed on our table of allowances as required, and we assumed procedures to communicate with range control were adequate. After that incident, it became standard procedure not to go on range clearance operations without a means of direct communication with overflying aircraft.

My unit and I were lucky; there were no injuries or deaths resulting from this incident. Several things bear emphasizing so this doesn't happen to you, including:

- Know your range procedures; get the required training from your range control officer.
- Conduct a hazard analysis of your operation; identify and mitigate all hazards.
- If you are unfamiliar with the types of operations that can be conducted on your range, ask questions.
- Communications, both for daily operations as well as in emergencies, must be reliable and tested every time you go on the range.
- Ensure your communications with range control are understood and that you both are operating with the same terminology.
- Do not conduct operations without the proper equipment or training.

In addition, when all else fails, make sure you have a "backup" plan in place.

"Range **SAFETY** depends on reliable **COMMUNICATIONS** and a complete **UNDERSTANDING** of terminology and **PROCEDURES** to operate on **RANGES.**"

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The IMPORTANCE of CREW COORDINATION

CHIEF WARRANT OFFICER 3 A.J. PORRETTA
A Company, 4th Battalion, 2nd Aviation Regiment
Camp Humphreys, Korea

It was a night almost like every other at Forward Operating Base Speicher. We were on the early morning shift, starting work at 3 a.m. We were told earlier in the day that we would be conducting a hasty air assault that night that would take about one hour to complete. After that, we would perform a follow-on recon and security mission. Flying Apaches, we departed about two hours earlier than our shift normally started and went to another FOB to get a quick final brief on the air assault, and then off we went.

The mission went off without a hitch. We completed the mission and flew directly to the forward arming and refueling point to get fuel before we continued our recon mission. We sat in the FARP for a short time talking about the mission and how well it had gone. After the refuel was complete, we went through the before-takeoff checklist and took off again.

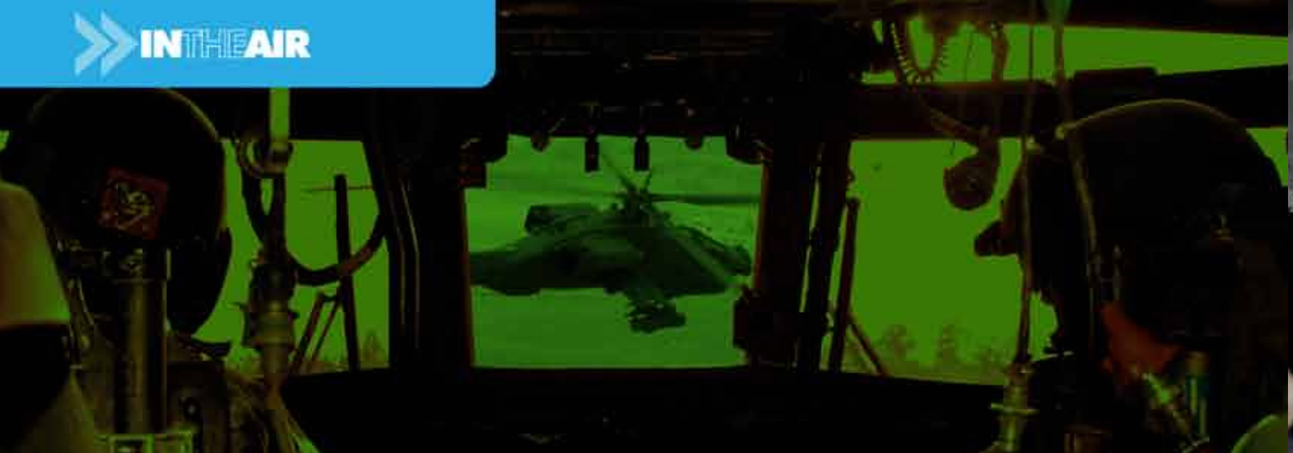
My backseater and I followed Gun One out of the FARP and toward our first objective. We took the left side of the formation, five to seven rotor disks away and at the same altitude. I was flying with my night vision goggles, and the backseater had on his night vision system. About two minutes into the flight, we reached our first checkpoint and Gun One said, "Coming left." My backseater acknowledged by saying, "Roger."

I had been looking in the target acquisition designation sight at the checkpoint and the area around it and noticed we were not immediately turning. I looked up and to the right, where our lead aircraft was, and saw Gun One was now about one to two disks away and turning right into us. I shouted, "Oh, $#@!," and grabbed the controls and rapidly gained altitude while leveling the aircraft. I told the backseater what had happened. After we talked about how close it was, we continued the mission without further incident.

We learned several things from this near miss:

1. Crew coordination needs to exist not only in the aircraft, but also in the flight. Acknowledging the other aircraft verbally is telling the other aircraft you are fully aware of what they are going to do and that you are in a position to react to it. If you do not understand or you're not in that position, do not acknowledge. Standby is an acceptable response.
2. "Oh, $#@!" is not proper terminology. "Emergency, I have the controls," is. Did

> "Front-seat **PILOTS** need to have enough situational **AWARENESS** to get the **"BIG PICTURE,"** not just the **SMALL** world we live in while we are **STARING** at our little **SCREEN.**"



I have enough time to say all that before I took the controls? At the time, I did not think so. I was a new pilot with less than 700 hours, and the other pilot was a more experienced maintenance pilot with more than 1,000 hours. What do you think went through his head when a junior warrant officer, without any real explanation, rapidly took away the controls?

3. Front seaters need to have good situational awareness. They should not be "seat meat," just there to work the TADS and find targets. They need to pay attention to what is going on, not only on the ground, but also on having a good mental picture of what you and the other aircraft are doing. At the time, I was looking at a road and noticed the aircraft not turning. I had gotten the picture in my head of where Gun One was and where we were. The fact that we had not turned was a big red flag.

While approaching the checkpoint, I think everybody was looking to the left into the turn, front and backseaters of both aircraft. Takeoffs and landings are the most critical times in which both crewmembers need to be "outside" the aircraft. But, what about flying in close formation? Front-seat pilots need to have enough situational awareness to get the "big picture," not just the small world we live in while we are staring at our little screen.

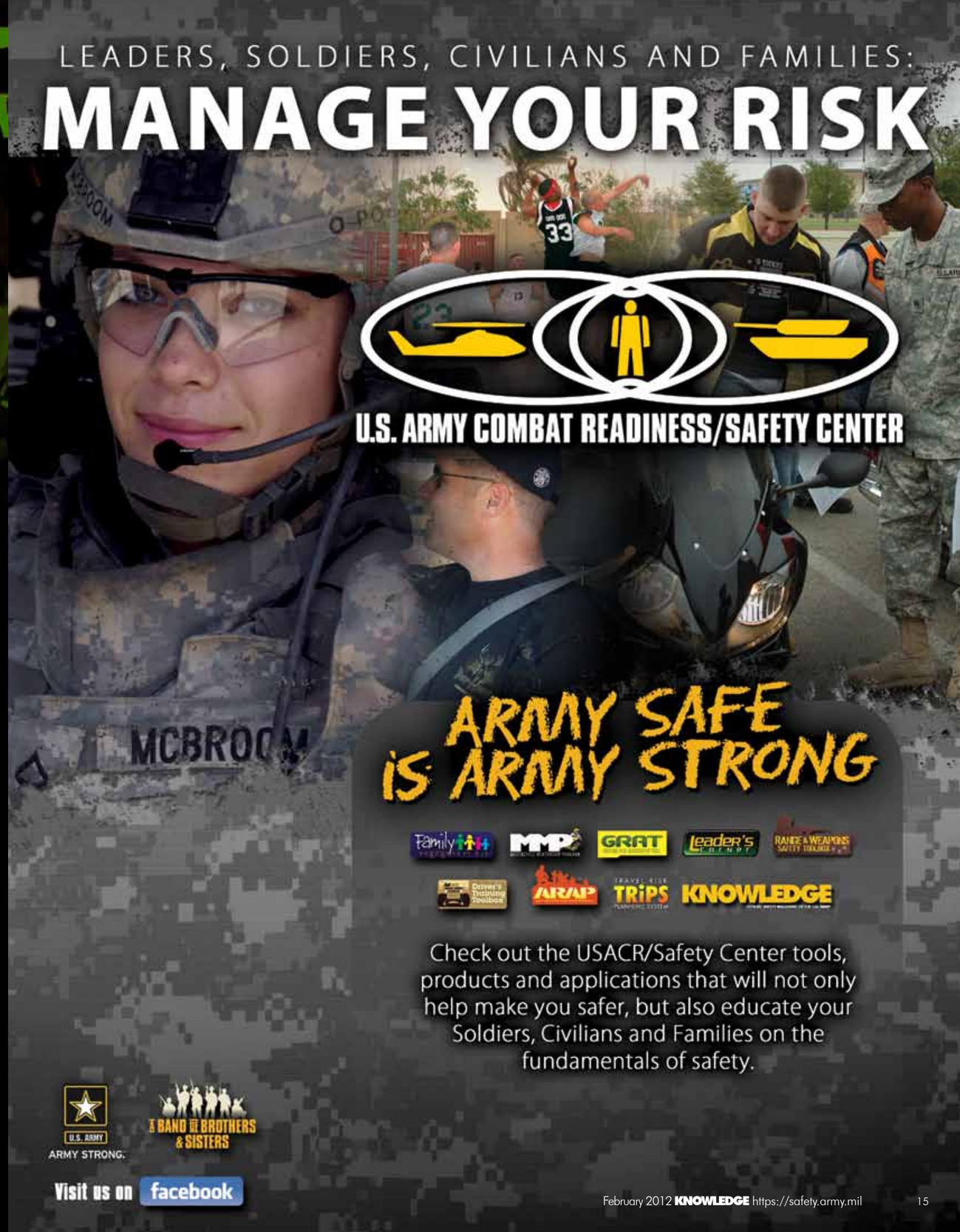
Don't get me wrong, I am not saying if you are not Gun One that you need to always be "outside" while in formation. However, you need to have enough situational awareness to know when something does not sound or feel right and know what you can do to help or fix it. Maybe one day it will save you from an aviation accident. It may even save your life.

FOOD FOR THOUGHT

Army aviation has long used aircrew coordination to improve an aircrew's interaction and efficiency in safely accomplishing their missions. This time-proven program, Aircrew Coordination Training-Enhanced, or ACT-E, reduces accidents and improves the effectiveness of crews in both peace and wartime. To help prevent accidents attributed to or involving crew coordination failures, aviation Leaders must continue to invest time in strategies that address improvements in crew coordination.

What can your unit do?

- **Ensure all aircrew members are trained and evaluated on the most current ACT-E programs available for your aircraft. For updates, call the U.S. Army Aviation Center of Excellence Directorate of Training and Doctrine at (334) 255-3947.**
- **Conduct crew and passenger briefings thoroughly using a Leader-approved checklist as part of a standing operating procedure. Brief the actions and responsibilities of all aircrew members beforehand so if an emergency does occur, there is a plan in place instead of trying to make it up as you go.**
- **Ensure team rehearsals are conducted before mission execution with emphasis on crew coordination, duties and responsibilities. Plan for the worst scenario, especially if the aircraft is hot and heavy or the weather is marginal.**
- **Emphasize to aircrews the importance of continuing to fly the aircraft, asking for assistance, offering assistance and continuing to communicate, especially when things start to go bad.**
- **Conduct after-action reviews or debriefs after the mission and discuss crew coordination successes and deficiencies and how to improve.**



One of the most difficult safety precautions to convince Soldiers to buy into is to remove jewelry before working around aircraft. Wedding bands, in particular, are not commonly removed because of the personal conviction that the symbolic jewelry should be worn at all times. Nearly all Soldiers have seen the photographic evidence of the dangers of wearing rings, but they accept the risk either to avoid violating their personal beliefs or possibly due to threats from their spouses.

I was one of those Soldiers who knew and understood the risks associated with wearing my wedding band at work, but I chose to wear it anyway. I told myself nothing would happen to me because I was aware of the catch hazard and I would operate with a heightened consciousness of the ring. I believed I would be able to reduce the risk by wearing my gloves during preflight operations and avoid jumping down from the aircraft. I was much more afraid of losing the ring or simply forgetting to put it back on after work and causing my wife to question why I wasn't wearing the very symbol of my fidelity and commitment to our marriage.

Of course, I would not be writing this article if I weren't personally involved in a ring accident. And let me tell you, it hurts! It happened to me while climbing out of the pilot side of a Black Hawk following a night vision goggle flight in Iraq. After a long night of NVG flying in a combat zone, this was not the way I was expecting to finish my day.

I had about 700 flight hours at the time and, as far as I can remember, I had always climbed out of the aircraft the same way. Although there was nothing out of the ordinary about the way I dismounted the helicopter, this was the time my ring finger became acquainted with the tiny screw that protrudes about two threads out from the top of the armor side panel. Unfortunately, my loosely enforced personal rule of not jumping off the aircraft did not always apply to getting out of my seat after a flight. I typically pushed myself out from the step and hopped out of the aircraft. Since I am somewhat short and lowering one foot to the ground and leaving the other on the step is unnatural, the small jump down from the step had become routine. So, holding my left hand on the top of the armor panel, I pushed off and jumped to the ground just a foot or two below. My ring caught on the screw and by the time my feet hit the ground, I was in a completely unexpected world of pain.

> "I **TOLD** myself **NOTHING** would **HAPPEN** to me **BECAUSE** I was **AWARE** of the catch **HAZARD** and I would **OPERATE** with a **HEIGHTENED** consciousness of the ring."

Initially, I tried to conceal my pain because I knew exactly how unsympathetic my crew would be. We had all seen the graphic photos and been warned about the risks of wearing wedding rings on the aircraft. Besides that, it is pretty tough to squeeze any sympathy for mistakes from aviators, in general. After a few moments of trying to be tough, though, it was a relief to scream a blue streak. Predictably, nobody felt sorry for me, but a crew chief was sure to take pictures to post at the troop medical clinic. Luckily, my ring came off my finger and my wounds were not serious, but I learned a valuable lesson through the pain of the accident and the shame of having to walk by the picture of my finger every time I visited the TMC.

One positive outcome of this accident is that I gained a solid argument to convince my wife that wearing my ring at work was too dangerous. So, now I share this story and the photo with you so that you can make that argument with your spouse before you have a similar accident.

PREFLIGHT STEP 1:

PLACE RING IN THE OFF POSITION

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FLASH – SIZZLE – DARK SPOT

MIKE WOOD
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The Army uses nonlethal weapons such as lasers on a daily basis to protect our forces. If used improperly, these types of weapons could cause temporary — or even permanent — eye damage.

Soldiers injured in laser incidents often report seeing a flash, while others hear a short sizzle and then see a dark spot. Symptoms include temporary blindness, blurred vision and headaches. Fortunately, these types of injuries are preventable if Soldiers receive the proper training and apply what they learn to laser operations.

Between fiscal 2009 and 2010, the U.S. Army Combat Readiness/Safety Center received 17 accident reports on eye injuries caused by lasers. It's easy to see how these accidents could happen, especially if Soldiers haven't been provided proper training. Many of these lasing incidents occurred as convoys or patrols approached traffic checkpoints and security towers controlling the gates at forward operating bases. We've even had an incident where two Soldiers were playing around with a laser that resulted in an eye injury to another Soldier.

As the Army continues to use lasers in the field, the potential for accidental lasing of Soldiers exists. However, it is possible to reduce these incidents through education. Knowing the difference between the classes of lasers and how to handle each of them safely are key elements in reducing lasing accidents.

All laser systems must have a warning label that identifies the class of the laser. These labels may be found on a wide range of items such as personal CD and DVD players to Army equipment, including rangefinders and target designators used by Soldiers. The chart below provides the different classes of lasers and the hazards, if any, with each class.

To properly use lasers, prevent eye and skin injuries, and protect vision, rigorously apply the following controls:

- Know who your LSO or RSO for your unit is.
- Know the class of laser you are using and the Nominal Ocular Hazard Distance.

LASER CLASSIFICATION	MEANING
Class 1	• Emit at levels that are not hazardous under any viewing or maintenance condition. • Exempt from any control measures or other forms of surveillance.
Class 1M	• Emit at levels that are not hazardous under normal viewing conditions but could be hazardous for intrabeam viewing through magnifying optics. • Potentially hazardous if viewed with certain optical aids.
Class 2	• Emits in the visible portion of the spectrum (0.4 to 0.7 micrometers (µm). • Eye protection is normally afforded by the aversion response[a].
Class 2M	• Emits in the visible portion of the spectrum (0.4 to 0.7 micrometers). • Eye protection is normally afforded by the aversion response for unaided viewing[a]. • Potentially hazardous if viewed with certain optical aids.
Class 3R	• Potentially hazardous under some direct and specular reflection[b] viewing conditions, but the probability of actual injury is small. The laser will not pose either a fire hazard or diffuse-reflection[c] hazard.
Class 3B	• Is a hazard under direct and specular viewing conditions, but is normally not a diffuse reflection or fire hazard.
Class 4	• Is a hazard to the eye or skin from the direct beam. • May pose a diffuse reflection or fire hazard. • May also produce laser-generated air contaminants and hazardous plasma radiation.

Editor's note: The laser classification chart is an excerpt from ANSI Z136.1-2007, American National Standard for Safe Use of Lasers.

[a]The aversion response is closure of the eyelid, eye movement, papillary constriction or movement of the head to avoid exposure to a bright light stimulant.

[b]Specular reflection is a mirror-like reflection.

[c]Diffuse reflections change the spatial distribution of the beam of radiation when it is reflected in many directions by a surface or medium.

If laser systems have older laser classification nomenclature (i.e., II or 3a), consult your unit laser safety office or radiation safety officer, installation LSO or RSO or higher headquarters LSO/RSO. If additional information is needed on a system, contact the U.S. Army Institute of Public Health, Laser and Optical Radiation Program, at (410) 436-3932, DSN 584-3932, or email army.laser.safety@us.army.mil.

- Complete laser safety training, know how to properly use the laser and know restrictions on use.
- Handle the laser with the same respect and care as a loaded weapon.
- Know the rules of engagement:
  1. Never intentionally point a laser at anyone's face if they are closer than the NOHD.
  2. Never aim the laser at reflective surfaces within the NOHD.
- Keep lasers clean and dry and remove batteries after use.
- Properly secure lasers when not in use.
- Do not remove warning labels from the laser.
- Never leave an operable laser unattended.
- Check the security of mounting hardware.

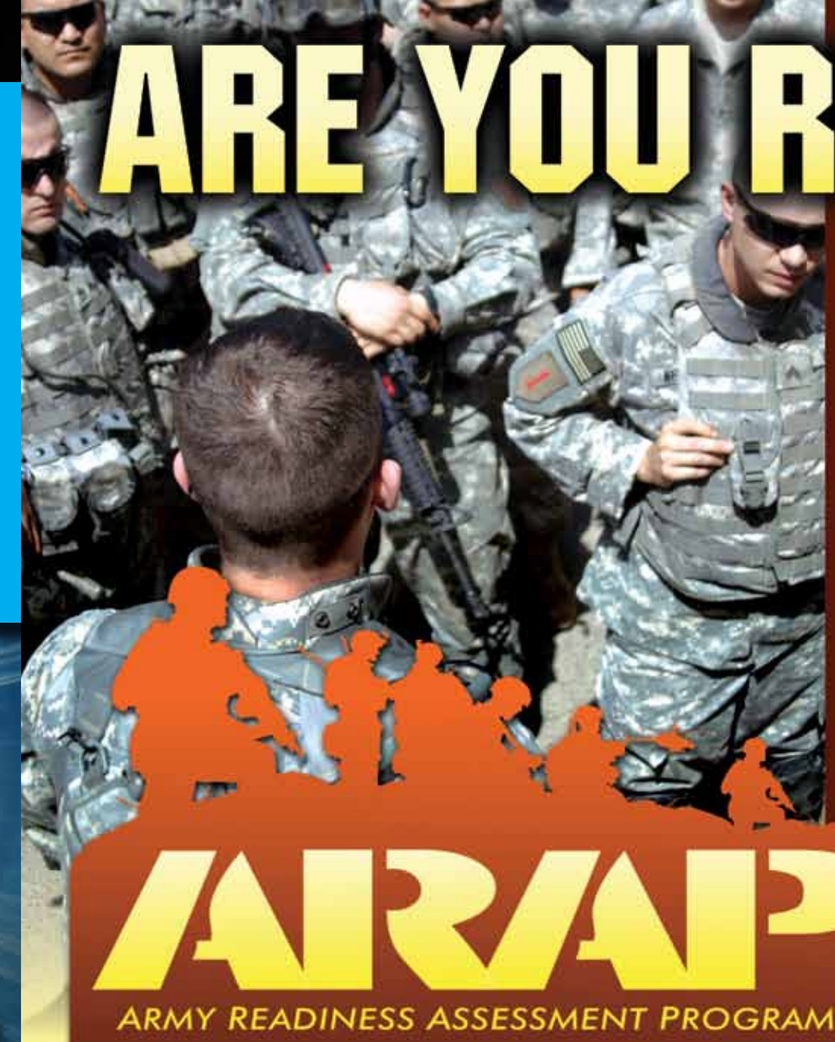
Lasers systems are a part of a Soldier's life on the battlefield and in training. Proper education is essential to Soldiers understanding the hazards of misusing these tools.

FYI

Technical Bulletin Medical 524, Control of Hazards to Health from Laser Radiation, provides guidelines and establishes procedures for personnel protection from laser radiation. The bulletin encompasses the portion of the electromagnetic spectrum in which laser radiation can be produced, including ultraviolet, visible light and infrared radiation. Field Manual 8-50, Prevention and Medical Management of Laser Injuries, provides basic preventive, protective and diagnostic information on laser injuries. For additional information and resources regarding laser safety, visit the Army Public Health Command's Laser and Optical Radiation site at http://phc.amedd.army.mil.

LASER LESSON

Did you know laser dazzlers started out as a form of nonlethal checkpoint control and tactical area denial? The concept was if a vehicle was approaching a checkpoint or gate, lase it outside of the NOHD to produce an aversion response of the driver. If the driver stopped, no additional escalation of force was to be used. If the intent of the driver was to continue toward the checkpoint, additional escalation of force was to be used. Today, the Army uses the Green Laser Interdiction System as a nonlethal laser system. The effective range of this laser is from the NOHD out to 600 meters away. Designed to cause an aversion response, the green light is similar to a bright camera flash. They have been an indispensable tool for Soldiers and military bases.



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Wouldn't you like to prevent the loss of personnel and equipment?

Don't you want to protect your combat power?

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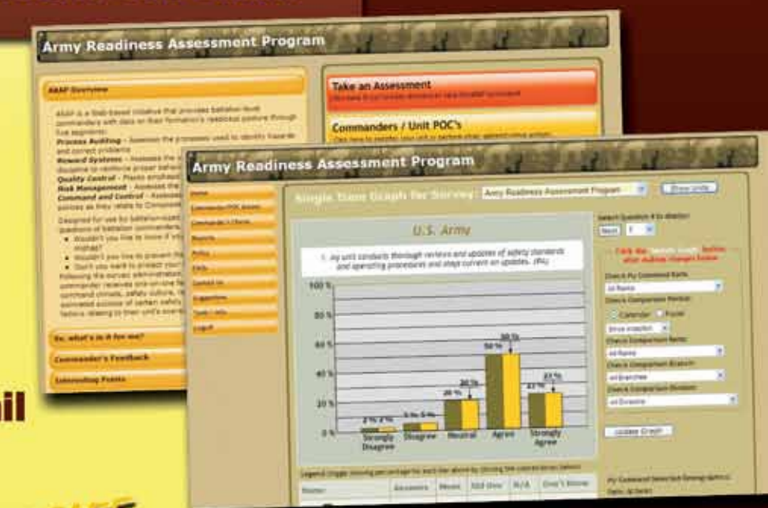

ARAP is a Web-based initiative that provides battalion-level commanders with data on their formation's readiness posture.

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ARMY SAFE IS ARMY STRONG

A NEARLY 'PERFECT' STORM

NAME WITHHELD BY REQUEST

It was my fault as much as it was his. I work with safety professionals. I hear the statistics every day. Yet there I was in my own little world, rushing to get home and not paying attention to the other drivers on the road. That's how I ended up forced into the median doing 60 mph in my Toyota Camry.

You know how when you play back things in your head you remember details that escaped you before? I realized later the driver in the lane to my right had a cellphone to his ear. I hadn't noticed the phone when I eased into the passing lane to go around him because he wasn't weaving or doing any of those other things distracted drivers commonly do. And I was in a hurry. The truth is I was just as distracted as he was; I just didn't have a phone to my ear.

What took place then was nearly the proverbial "perfect storm." We were doing about 60 mph when a maroon-colored sedan pulled onto the highway ahead of the other driver, who I was passing. The maroon sedan was well ahead of us and had plenty of clearance. It wasn't like the driver to my right had to slam onto his brakes. To be precise, he didn't have to immediately slow down, although at 60 mph he eventually would have to. So, without looking, he steered the nose of his car into my lane. I wasn't in his blind spot. Had he bothered to look he'd have seen me there right beside him. However, he didn't look; very likely because he was distracted by his cellphone conversation.

By the same token, had I not been staring straight ahead, fixated on getting home, I'd have realized what the "phone guy" was likely to do when the maroon sedan pulled onto the highway. I, too, would have probably moved over, although I'd like to think I'd have the sense to make sure the lane was open first.

As he moved into my lane, I was forced to veer left toward the median. Fortunately, there was a generous swath of asphalt between the left lane and the median proper. That allowed me just enough room to avoid being hit without running onto the grass-covered part of the median. Had I, I would have probably ended up in the hospital — or morgue — instead of writing this story.

That day, I'd allowed myself to become complacent behind the wheel while sharing the road with other distracted drivers. Because I was driving on a familiar road and concentrating on getting home, I was thinking about what I was going to do instead of what I was doing. Like so many Soldiers I see in accident reports, I was taking things for granted and failing to identify the hazards around me.

As suddenly as it began, the incident ended with the distracted driver pulling back into his lane and me into mine. I'm not even sure the driver in the maroon sedan was aware of what had taken place behind him. And while I can't speak for phone guy, I spent the next couple of miles tightly holding onto the steering wheel and trying to catch my breath again.

I grew up hearing the slogans "Drive Defensively" and "Watch Out for the Other Guy." As my mother would say, I "went away from my raising" that day and it almost cost me big time. Driving, by its very nature, is a multitasking activity, one that has drivers making an average of 200 decisions every mile. Take it from me; when you're behind the wheel, every one of those decisions is more important than anything else you have to do later. The truth is if you don't pay attention while you're on the road, there may not be a "later."

FATAL DISTRACTIONS

Distractions aren't merely annoying; they can be fatal behind the wheel. There are three main types of distraction that can quickly take you from your car to your coffin:

- **Visual — taking your eyes off the road**
- **Manual — taking your hands off the wheel**
- **Cognitive — taking your mind off what you're doing**

The dangers of texting and talking on cellphones dominate the news. However, reaching, eating, drinking, playing CDs, tuning the radio, keying information into a GPS and talking with passengers also account for a hefty number of distracted-driving accidents. Less obvious forms of distractions such as daydreaming or dealing with strong emotions can be just as deadly. Anything that diverts your attention while you're driving significantly raises your risks.

Just how big of an issue is this? According to the National Highway Transportation and Safety Administration, distracted driving contributed to more than 22 percent of all crashes and near-crashes recorded during their 100-Car Naturalistic Driving Study. In a typical year, that would equate to more than 5,000 people killed and 1.5 million injured.

So where do you want to end up at the end of your trip — at your destination or in a statistics column? It's your choice. You can either pay attention now or pay the consequences later.

CROSSING the Gap

CHIEF WARRANT OFFICER 4 MARC ASSUMPCAO
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Vehicle water crossings are an inevitable yet necessary task for Leaders, Soldiers and personnel to accomplish their mission. Because of the inherent danger in water crossings, it is imperative units conduct proper terrain analysis, personnel training in fording operations, equipment preparation and apply composite risk management during the planning process and well before the execution phase.

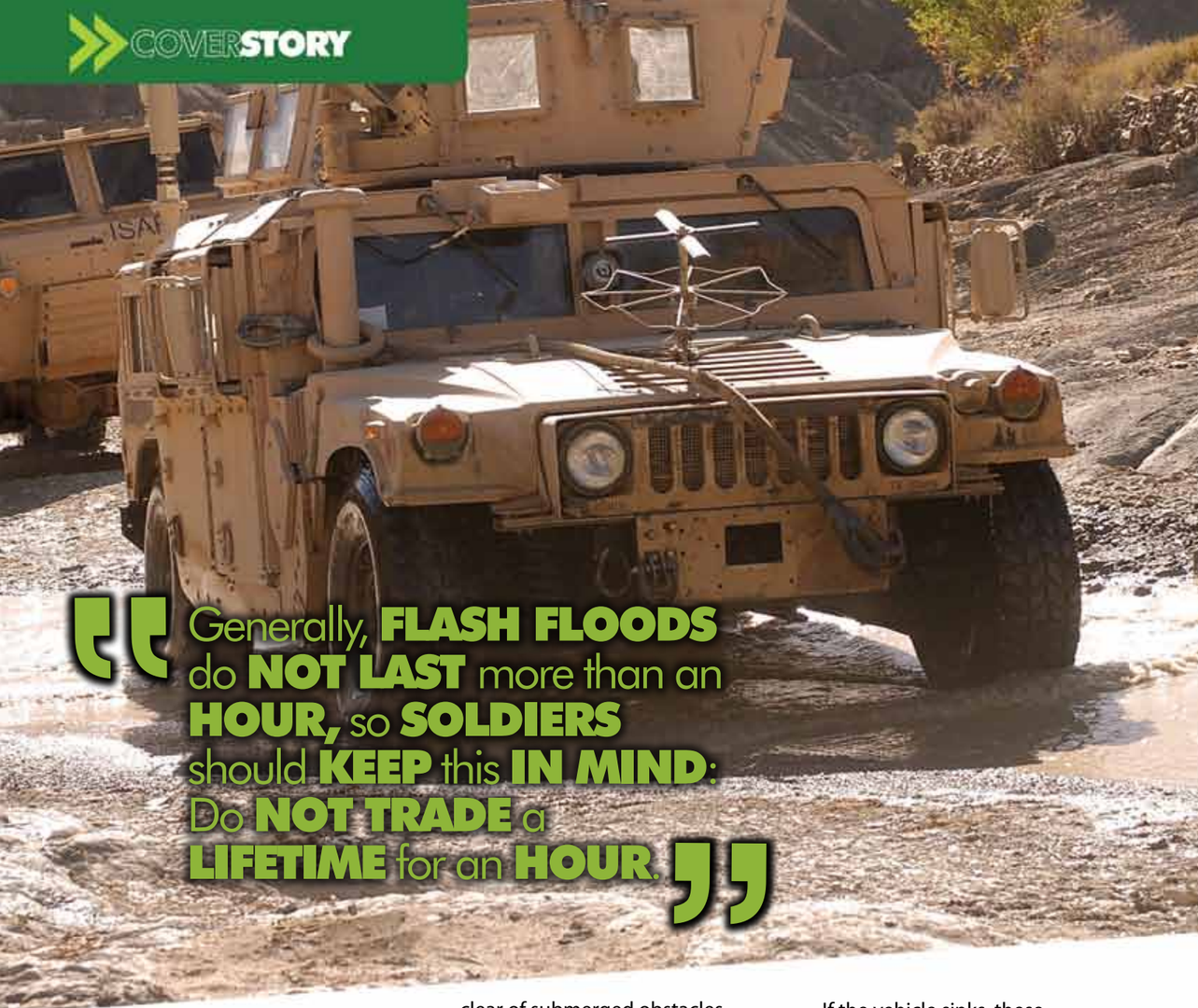
There are many important factors to consider before conducting water-crossing operations. I would like to highlight a few best practices and lessons learned in an effort to shed light on how to mitigate risks associated with water crossings. Soldiers and Leaders may not realize the buoyant force on an object is equal to the weight of the fluid displaced by that object. A cubic foot of water weighs about 62.4 pounds. Vehicles displace a lot of water when they enter a river or creek bed, and the pressure exerted by moving water increases with the square of its velocity. The depth and width of the area to be crossed, the bank conditions and the river's current velocity are major factors to consider before attempting a water crossing. These factors will determine if equipment and personnel can cross by fording or swimming, if use of expedient materials is practical or if specific bridging assets are required.

Some common risks of trying to cross water include vehicles stalling or becoming stuck. Most times, when a vehicle stalls, personnel try to get out of the vehicle. Once outside, they are exposed to swift currents that may result in them falling into the water and being swept away or jammed into debris downstream.

Drivers and their vehicle commanders also must be aware of environmental conditions and other issues associated with water crossings. Water clarity and lighting circumstances could conceal the condition of the roadway beneath them. Floodwaters can also hide a damaged roadway. Generally, flash floods do not last more than an hour, so Soldiers should keep this in mind: Do not trade a lifetime for an hour. Act safely, remember your training and do not cut corners.

DID YOU KNOW?

Field Manual 3-90.12, Combined Arms Gap-Crossing Operations, focuses on the elements necessary for the forces to cross an obstacle, wet or dry. To view this publication and others related to equipment safety operations, check out our Driver's Training Toolbox at https://safety.army.mil/drivertrainingtoolbox/. Having a strong, solid foundation on aspects necessary for water crossings enables the personnel and equipment to be safely postured.



> Generally, **FLASH FLOODS** do **NOT LAST** more than an **HOUR,** so **SOLDIERS** should **KEEP** this **IN MIND:** Do **NOT TRADE** a **LIFETIME** for an **HOUR.**

Other factors to consider before conducting water-crossing operations include:

- Follow all vehicle fording and swimming instructions in accordance with the vehicle's technical manual.
- During training exercises, ensure drivers and crewmembers wear personal flotation devices if the water is more than 4 feet deep.

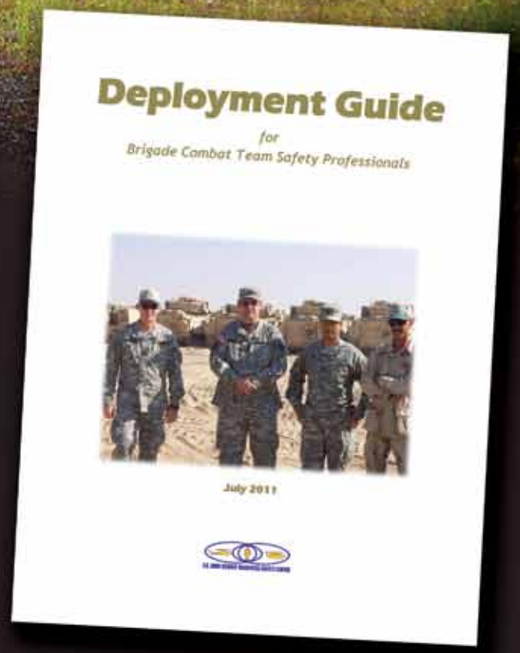
Factors to consider during water-crossing operations include:

- Ensure the water depth at the fording site is below the vehicle's fording limits and the site is clear of submerged obstacles.
- Do not exceed 4 mph when entering and traveling through the water.
- Consider not wearing load-bearing equipment during fording operations. The equipment could snag on vehicle components and prevent crewmembers from escaping through the top hatches during emergencies.
- Consider leaving combat locks unlocked during fording and when operating near bodies of water.
- Store sensitive items and small arms inside the vehicle. If the vehicle sinks, these items can be easily retrieved during recovery opeations.
- Attach dismounted troops to a safety line when crossing.
- Do not cross more than one vehicle at a time, and do not cross a vehicle beside dismounted troops.
- Ensure the fording site has adequate entrance and exit points and a firm bottom.

Analyzing wet gaps and using the necessary resources available should allow crossings of gaps to occur safely and minimize unnecessary risks.

You don't have to reinvent the wheel.

When preparing to go downrange, check out the Deployment Guide for Brigade Combat Team Safety Professionals for valuable lessons learned, resources, tools and other useful information. While developed for BCT safety professionals, anybody can use this deployment guide. Visit https://safety.army.mil/deploymentguide to download or order a DVD copy of the guide.



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RACING WITH DESTINY

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It's hard to resist rolling the throttle when you're straddling a motorcycle that can go from zero to 100 mph in less than six seconds. But that's what Staff Sgt. William Whiteside's potent 2005 Yamaha YZF-R1 sport bike could do. In 2007, the prior-service Sailor had been racing on a MotoGP track in Jerez, Spain, close to his assignment in Rota. Now back stateside, he was exiting Highway 167 North in Renton, Wash., onto the onramp to Interstate 405 North when he encountered some easy curves and a decent straightaway. With 165 horsepower at his fingertips and an agile bike, the onramp didn't have to be boring. At least that's what he thought as he entered the first curve.

"I was leading the pack because I was the most experienced one out of everybody," Whiteside said. "I was wearing all of my protective equipment — all my basic stuff that I wore on the track when I raced."

Behind him were a dozen riders who'd met that morning at a motorcycle shop in Renton. It was a chilly 45 degrees as they headed out. They'd been on the road less than five minutes when they hit the interchange from Highway 167 to I-405 North. Their tires, relatively cold and hard as they started the ride, hadn't yet warmed enough to reach their optimal "stickiness," or traction, with the road. That would take a bit more time — time Whiteside didn't have as he pushed the Yamaha's performance.

Going between 65 and 75 mph as he exited Highway 167 onto the onramp, he flashed past a 45-mph speed limit sign, followed shortly thereafter by a sign recommending drivers slow to 35 mph for curves. But such recommendations, Whiteside considered, didn't reflect the agility of his R1. Leaning left coming out of a switchback, his rear tire suddenly broke loose, sending his bike into a counterclockwise spin. He fell back on his training and racing experience.

"If you lose traction with the rear tire, you're supposed to maintain and (if needed) increase throttle to help pull you out of the corner," he said. Braking or slowing down, he explained, would cause the motorcycle to stand up and go straight, running off the road.

But he couldn't regain control.

"My rear tire began coming around," he said. The bike quickly spun until it was nearly 90 degrees to the road. The rear tire, rapidly heating as it slid and spun against the road, suddenly gained full traction. What happened next, Whiteside will never forget.

"It shot me over the top, and that was the end of it," he said.

The motorcycle had "high-sided," flipping to the right and violently throwing him onto the road ahead.

"After I went over the top of the handlebars, I flipped and landed on the back of my head," he said. "When that happened, it basically compressed my spine to the point it caused a compression fracture to my L1 vertebrae. However, thanks to my safety gear, that was all that happened."

Despite his injury, Whiteside was conscious. Pumped with adrenaline, he got up and ran off the road, collapsing into a ditch. Fortunately, one of his fellow riders was a Navy corpsman. He stopped and immediately assessed his injuries while Whiteside complained of pain in his left foot and back. The corpsman and the other riders stabilized Whiteside as they awaited the ambulance.

"I was able to maintain consciousness, but I don't remember a whole lot of what happened after that," Whiteside said.

An ambulance picked up Whiteside to take him to Madigan Army Medical Center, located about 35 miles away. However, en route he lost consciousness and was transferred to another ambulance that took him to Harbor View Medical Center in Seattle. En route, he lost consciousness again. When he regained consciousness, it was several hours later.

"I woke up that night in the hospital with a brace and X-rays from all over my back showing I had broken it," he said.

Doctors monitored him for three days to ensure his fractured disc didn't shatter. They then put him in an extensive brace with bars running down his rib cage and across his chest and stomach. He wore the brace for three months to stabilize his back while his damaged vertebrae healed. He discovered his tightly fitting racing leathers had performed an important function.

"The doctors stated that if I hadn't been wearing my leather suit, I'd have probably been in a wheelchair, paralyzed from the waist down," Whiteside said. The leathers, he

explained, kept pressure on the damaged vertebrae, protecting it. He added had he just been wearing a loose-fitting jacket, the disk would likely have shattered or blown out, damaging his spinal cord.

Whiteside's personal protective equipment protected him in many other ways.

"My gloves were completely shredded, but there was not a single scratch on my hands," he said. "My glove's Kevlar knuckle protectors prevented my hands from being shattered."

The impact tore a chunk out of the back of his helmet, an expensive Arai model. However, a damaged helmet beat the alternative. He said his insurance company gladly paid the nearly $5,000 to replace his riding gear, noting it was cheaper than paying for a coffin.

Surviving the accident provided him some valuable lessons learned. Although his bike could've easily handled the curves on a well-groomed racing track, riding on the street was a different matter. He lost control on a grooved road surface designed to promote rain runoff — a situation he never faced on a racetrack. Also, before racing, riders use electric heaters to warm their tires for maximum traction. Without those, it could've taken 10 to 15 minutes of riding before his tires would enjoy the same level of grip on the roads. And he didn't have that long.

Whiteside learned the street was not the place for riders to explore the performance of modern sport bikes. There are too many variables, any of which could suddenly send a rider out of control. And smart riders know that riding gear is no place to skimp or save money. When things go wrong, quality riding gear may be more important than a rider can imagine.

"It doesn't matter if it's five feet from your house or a 100-mile trip; you always need your gear because you can't predict what will happen," Whiteside said.

It's also important for the rider to stay ahead of the machine.

"I tell riders to always drive a mile ahead of themselves," he said. "Expect others to pull out in front of you, expect there to be something as you go through every corner. Expect the worst because, when you don't, that's when 'it' is going to happen."

Whiteside learned from his experience and is committed to helping protect fellow Army riders safely enjoy the sport of motorcycling. Check out the story, "To Make a Difference" on page 32 to see how he and other dedicated Leaders are working to protect riders. Also, if you've just arrived at a new duty station and are unfamiliar with the roads, see the related story "Reading the Road" on page 14 for safe riding tips.

WHAT'S BETWEEN YOU AND THE ROAD?

Staff Sgt. William Whiteside knows how important good personal protective equipment is to a rider. After all, he got the chance to wear out $5,000 worth of it in just one accident. That said, he's still alive, can walk and count to 10 on his fingers.

If you're going to ride, it's wise to put something durable between your head, your hide and the highway. The Motorcycle Safety Foundation has the following suggestions about good riding gear.

- **Helmets – Make sure they meet DOT standards and consider a full-face model to protect your nose, cheek and chin should you hit the highway face-first. Novelty helmets shatter like cheap plastic cups, splattering their contents on highways, jersey barriers, guardrails and other objects that don't give.**
- **Footwear – Boots with oil-resistant, rubber-based composite soles will give you a strong grip on the pavement and help keep your feet on the pegs. They can also protect against foot and ankle injuries.**
- **Jackets, Pants and Riding Suits – Gear purposefully designed to protect riders will better resist wearing through when sliding down the road and will also be cut to match the motorcyclist's riding position without binding.**
- **Gloves – Full-fingered gloves protect hands from blisters, wind, sun and cold and help prevent cuts, bruises and abrasions in a crash. This is especially important as the skin on the fingers is comparatively thin.**

RIDE FOR YOUR LIFE

The Motorcycle Mentorship Program establishes voluntary installation-level motorcycle associations where less experienced riders and seasoned riders can create a supportive environment of responsible motorcycle riding and enjoyment. This can create positive conduct and behavior and serve as a force multiplier that supports a commander's motorcycle accident prevention program.

MMP
MOTORCYCLE MENTORSHIP PROGRAM

Check out the USACR/Safety Center MMP website for some examples of active mentoring programs.

https://safety.army.mil/mmp/

ARMY STRONG.
U.S. ARMY COMBAT READINESS/SAFETY CENTER
ARMY SAFE IS ARMY STRONG
A BAND OF BROTHERS & SISTERS

TO MAKE A DIFFERENCE

BOB VAN ELSBERG
Strategic Communication Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Although Staff Sgt. William Whiteside survived his potentially disabling motorcycle accident (see the story, "Racing with Destiny" on page 28) another Soldier in the 201st Battlefield Surveillance Brigade wasn't as fortunate. The death of a sergeant in the 3rd Squadron, 38th Cavalry Regiment (see news story from The Seattle Times below), in April 2011 got the attention of 201st BSB commander Col. Paul Norwood.

A motorcyclist killed in a crash Saturday afternoon in Puyallup has been identified as Tyler J. Huber, 24. The Washington State Patrol said Huber was speeding at more than 100 mph when he was thrown from his motorcycle after it hit a car on Highway 167. The impact left the front fork assembly of the motorcycle embedded in the front of the car.

— The Seattle Times, April 11, 2011

Norwood's concern translated down to Whiteside's battalion commander, Lt. Col. Douglas Woodall — himself an avid rider. Whiteside, already invested in developing his battalion's own Motorcycle Mentorship Program, suddenly found his efforts a front-burner priority. In Woodall, Whiteside found a like-minded Leader, one concerned about protecting the unit's riders. With getting the MMP up and running a primary concern, Woodall conceived an idea sure to attract riders — an on-duty group ride. The ride, christened "Gryphon Glide," would engage not only the battalion's riders, but also those brigade-wide. The 50-mile ride to Washington's Pacific coast would reap safety benefits before the first engine rumbled to life.

"We brought everybody in a week prior and inspected their motorcycles and made sure each rider had all their personal protective equipment," Whiteside said. In addition, he explained they also made sure each rider had proof of registration and insurance and had their Motorcycle Safety Foundation training card. Beyond that, Whiteside, joined by Staff Sgt. Tyrone Greggs, personally inspected the riders' motorcycles, making sure each bike's chain, brakes and tires were in good condition. At the same time, Whiteside and Greggs took the opportunity to talk to the riders, learning what kind of bike they rode and their riding style. Armed with a much clearer picture of his organization's riders, Whiteside began working with Woodall and the battalion command sergeant major.

"We came up with a program placing the same emphasis on motorcycle safety that we put on other vehicles," Whiteside said. Now riders, not just motorists, will have their machines inspected before holidays. The message was clear — rider safety mattered.

That message was reinforced when another Soldier at Joint Base Lewis-McChord died on his motorcycle in June. Looking at the 16 nonfatal riding accidents Soldiers there had suffered since the previous July, speed and alcohol were recurring themes. Reviewing the accident reports clearly showed rider indiscipline as the primary cause. Soldiers either refused the required rider training or ignored the lessons they'd been taught. Clearly, the decision to ride safely must stem from riders' own motivations. The Gryphon Glide ride would mark the first step in a campaign dedicated to changing riders' motivations, decisions and actions on the road.

The ride took the riders from Lacey, Wash., on U.S. Highway 101 to Ocean Shores, Wash. After a buffet lunch in the parking lot of a Ramada Inn, the brigade conducted a safety stand down. As they did, they heard from Washington State Patrol Officer Lt. Michael Turcotte. Having spent more than 20 years working to reduce rider fatalities and injuries, he discussed common riding problems and explained the state's motorcycling laws. Following that, Whiteside told the brigade's riders how his PPE saved his life when he crashed in November 2008. Showing his own damaged riding gear, he emphasized why quality, not a low price, must be the criterion when selecting protective equipment.

The ride, which proved popular among riders, promoted an emphasis within the brigade's units to dedicate time and effort to protecting their riders.

"Our mentorship program identified one person per company on assignment orders as a mentorship NCO," Whiteside said. He explained that in that role they would conduct monthly motorcycle safety inspections and ensure riders possessed the required protective gear and had received MSF training. Beyond that, they would help Soldiers new to riding select a motorcycle matching their skills and riding interests. Equipped for success, new riders could enjoy their time motorcycling on the road, not recovering in the hospital.

And there was a side benefit, one greatly welcomed by riders. The increased emphasis on rider safety within the units showed vehicle drivers they also had a role to play.

"It raised their awareness of motorcycle safety," Whiteside said. He explained drivers were encouraged to pay attention to riders on the road, avoiding thoughtless actions that could endanger them.

The MMP also addressed another concern — "ghost riders." These Soldiers intentionally hide their riding from their commanders, in some cases only riding off post. Often not trained and frequently "mentored" by riders who deliberately choose to push the limits, ghost riders often fall prey to accidents. Above is a redacted Preliminary Loss Report on a recent fatal crash of a ghost rider.

To deal with the problem of ghost riders, Woodall laid down a standard for his riders to observe.

"If you get into an accident or get a ticket or have any type of motorcycle-related incident, or if you've not had your bike inspected or been to a motorcycle safety foundation course, then disciplinary actions may be taken," he said.

Whiteside explained, "It's kind of like drugs — there's zero tolerance for it. I think effective leadership, taking things to that degree, has pulled those in we didn't know had a bike."

From his own accident in 2008 to becoming responsible for developing an MMP, Whiteside has helped connect the problem to the solution. The fact is Soldiers don't have to die in needless riding accidents. When Leaders work closely with their NCOs to reach their unit's riders, it's possible to make a difference — a difference that can save lives.

PRELIMINARY LOSS REPORT

A Soldier was killed in a single-vehicle motorcycle crash. According to local investigators, the Soldier was attempting to make an illegal lane change while negotiating a turn at an interstate exit when he lost control and crashed into the guardrail. He was pronounced dead at the scene. He was wearing a helmet and his required personal protective equipment. The motorcycle was not registered on the installation and the chain of command was not aware he had one.

PROFESSIONAL COURTESY

WHEN DO YOU KEEP IT AND WHEN DO YOU THROW IT OUT THE WINDOW?

CHIEF WARRANT OFFICER 2 JESSICA BREWINGTON
6th Battalion, 101st Aviation Regiment General Support Aviation Battalion
Fort Campbell, Ky.

Professional courtesy can be defined as the courtesy given to senior ranking officers or more experienced Soldiers. Unfortunately, it can also become a hazard to a flight crew when inexperienced Soldiers are reluctant to announce hazards or lack the willingness to speak up and do what they know is right.

Being the junior pilot, I never wanted to displease or upset any of the seasoned pilots in my unit. Fresh out of flight school and naïve when compared to the other pilots, I assumed they were all "squared away" and I should never question them on their aviation/cockpit decisions. I assumed the pilot in command next to me knew it all and that I could always depend on him or her in those sticky situations. Being a newbie, I looked up to my PCs like Homer Simpson gawks at a glazed donut. I thought to myself, "Wow! Will I ever be as great a pilot as they are?"

I always felt this way until one bad flight. You know, "the flight" — the one that makes you clearly see out of your aviation Coke-bottle glasses forever. My unconditional trust toward others was out the window, along with the preconceived notion that every pilot around me knew what they were doing.

The day started out like any other in Iraq. Our crew was pretty much a company internal crew, except for the PC of my aircraft (whom we will call Capt. X to protect his identity). Capt. X was supplementing our company because our mission load was too heavy for the small number of PCs we had. Having supplemental PCs was standard, so I thought nothing of it.

The mission was to take us from Balad to a small forward operating base in northern Iraq with a refuel stop in Kirkuk. Sounds simple enough, right?

The crews took a little extra time in preparing for the mission, considering flying north of Balad was not our usual area of operations. I had been to Kirkuk once prior to this mission, so I was somewhat familiar with the airfield operations; however, I still wanted to check out the landing directions and forward arming and refueling point procedures into Kirkuk for good measure. Again, this was no big deal.

The morning briefings and preflight went well. It seemed as if this was going to be a great day. Our passengers were on the aircraft and we were ready to go. The usual "I-have-never-flown-with-you" conversation occurred on the first leg of the flight. Where are you from? How many kids do you have? What are your hobbies? Blah, blah, blah. Becoming more comfortable with Capt. X, I began to relax ... you know, settle into my usual pilot role.

> "I **SUCCUMBED** to the **PRESSURE** and did what most other new PIs **WOULD DO**. I lifted up the aircraft, flew **OVER THE BARRIER** and landed on the so-called **'TAXIWAY.'**"

The trouble started when we flew into Kirkuk for refuel. After realizing Capt. X was oblivious to the airfield layout, I took the reigns and guided us into the FARP. Capt. X had obviously

"ALWAYS DO what you know is **RIGHT."**

not looked over the airfield procedures for Kirkuk or even the airfield diagram for that matter. One small hiccup! That's OK; brush it off and move on with our day.

Nope!

"You are clear to back up out of the FARP," came over the radios from my standardization pilot/air mission commander in the trail aircraft.

"Great," I thought to myself. I could hover backward over the taxiway without having to do a ton of maneuvering. Suddenly, Capt. X announced, "All right, what I want you to do is fly over this cement barrier and land on the taxiway," pointing at the airfield diagram provided by the night shift, who prepared our kneeboard packets the night before.

"ALERT … ALERT … ALERT!" Red lights started flashing and alarms began screaming in my head. What is this guy thinking? One, the airfield procedures stated that we were not to overfly the cement barrier for any reason. And two, that was not a taxiway he is telling me to land on.

I explained to him in a tactful manner, "Sir, we are not supposed to overfly the barrier and I am pretty sure that is not a taxiway."

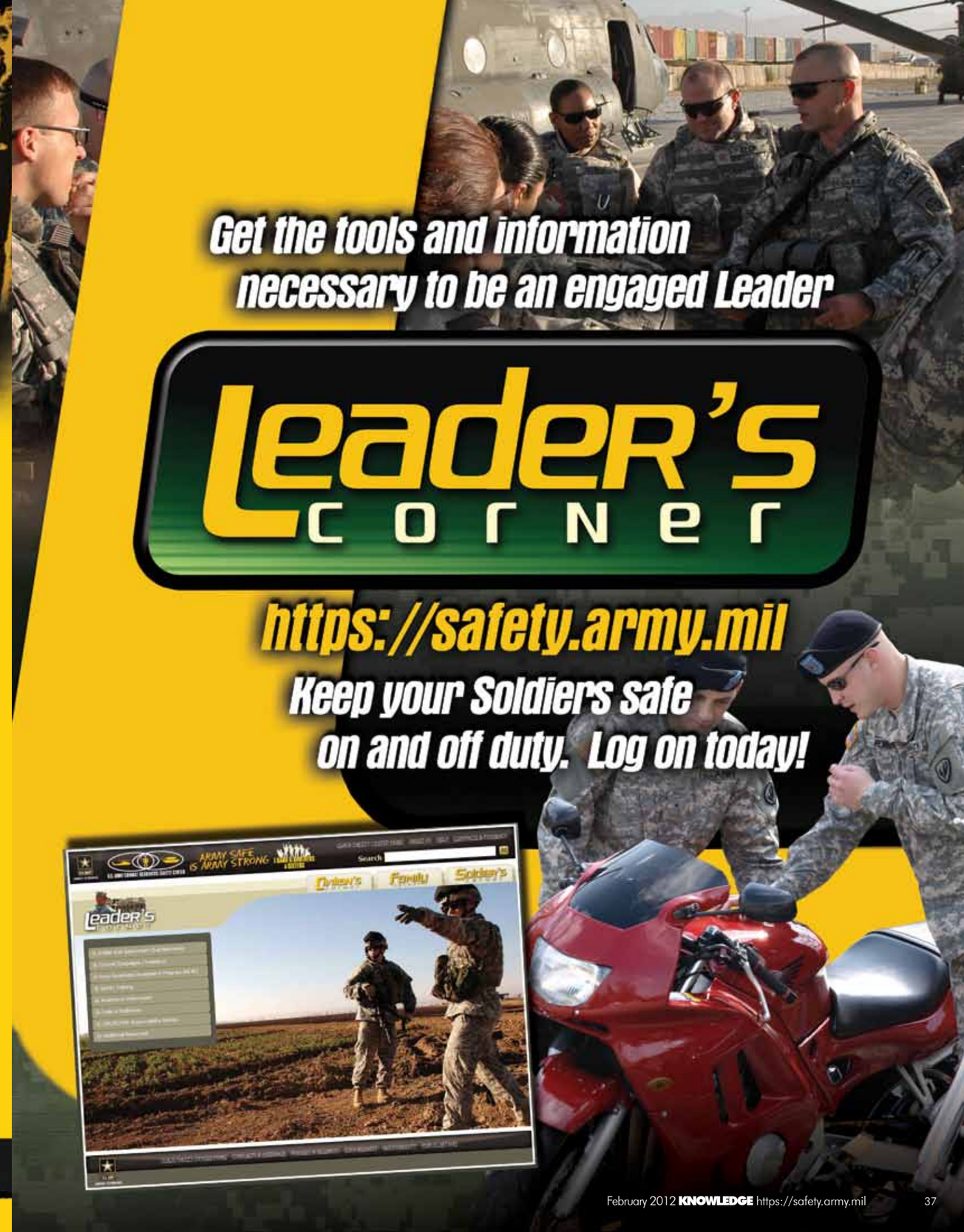
"No, we are going to fly over the barrier and land on the taxiway, just as I briefed," he said.

What could I do? I had just explained to Capt. X my interpretation of the procedures. And he wasn't taking any of my advice into consideration. Should I step on my PC's toes and request clarification from the AMC? Or should I give him professional courtesy and the benefit of the doubt?

I succumbed to the pressure and did what most other new PIs would do. I lifted up the aircraft, flew over the barrier and landed on the so-called "taxiway." Did I mention the porta-potty on the other side of the barrier flipped over, sending the dry toilet paper rolls into our rotor system? It looked like New Year's Eve, with tiny little flakes of toilet paper confetti streaming down in our rotor wash! Oh, and what else was on the other side of the barrier? A fuel bladder, which was now coated in fresh liquid "goodness" from the porta-potty!

Mortified and embarrassed, I knew my SP was sitting in the trail aircraft watching the entire situation unfold. I sunk deeper into my seat. All I could do was play out the reprimand that would follow the flight.

After a long, convoluted flight and a two-hour after-action report, I learned a few lifelong lessons. Always do what you know is right. And do whatever you need to do to maintain the safety of your crew and passengers … even if you have to throw the professional courtesy out the window.



PUSHING BEYOND THE LIMITS

1ST LT. RODNEY HALL
Mississippi Army National Guard
Biloxi, Miss.

In the combat arms profession, many Soldiers engage in competition daily. Based on my experience, one of the most common competitions is the art of pushing weights. When I say pushing weight, I mean working out in the gym using free weights as a means to test one's strength and ability. No service member wants the notoriety of being the weakest individual. Since many Soldiers work out together, it's common to push each other to, and even past, our physical capabilities.

One day after duty, a group of battle buddies and I went to the gym to get our daily "pump" on. We had been working out together for quite some time and were accustomed to each other's strengths and weaknesses. When it came to dumbbells, I excelled; in fact, I was the strongest in the group. However, I still wanted to improve my strength through other exercises and equipment.

After everyone finished, I decided to hang back to lift a little more weight. My intent was to increase my strength faster than my buddies. I decided to attack the dip machine with free weights. Initially, I mounted the machine with low weight to judge my capabilities. After two sets in, I realized I was able to do a lot more weight than I predicted. A few sets of light weights snowballed into me attempting to determine my absolute limit. Before I knew it, I was lifting too much weight. Suddenly, I felt a "POP!" and nearly fell onto the floor. At first, I thought I was just sore; however, I later realized I had injured a muscle in my chest.

My injury took months to heal. I was non-mission capable, unable to work out with my buddies and lost my weightlifting progress during my recovery. I strongly recommend everyone heed the following guidance when it comes to weight lifting … take it from a guy who learned the hard way!

When lifting weights, it is best to do it in a buddy team. I also learned you cannot push yourself past your limits safely. You should always use proper lifting techniques and make sure the equipment you're using is in good condition. Fortunately, I did not cause any chronic pain that put my future as a Soldier in jeopardy.

The Mayo Clinic's website, www.mayoclinic.com, has additional weightlifting tips that will help anyone get their workout on, safely!

When weight training, do:

- **Lift an appropriate amount of weight.** Start with a weight you can lift comfortably 12 to 15 times. For most people, a single set of 12 repetitions with the proper weight can build strength just as efficiently as can three sets of the same exercise. As you get stronger, gradually increase the amount of weight.
- **Use proper form.** Learn to do each exercise correctly. The better your form, the better your results — and the less likely you are to hurt yourself. If you're unable to maintain good form, decrease the weight or the number of repetitions. Remember that proper form matters even when you pick up and replace your weights on the weight racks. If you're not sure whether you're doing a particular exercise correctly, ask a personal trainer or other fitness specialist for help.
- **Breathe.** You might

DID YOU KNOW?

According to a release from Science Daily, www.sciencedaily.com, the popularity of weight training has grown over the past decade. A new study conducted by the Center for Injury Research and Policy of the Research Institute at Nationwide Children's Hospital has found that the number of injuries from weight training has increased as well. The study found that more than 970,000 weight training-related injuries were treated in U.S. hospital emergency departments between 1990 and 2007, increasing nearly 50 percent during the 18-year study period.

“When **LIFTING WEIGHTS**, it is best to do it in a **BUDDY TEAM**.”

be tempted to hold your breath while you’re lifting weights. Don’t. Holding your breath can lead to dangerous increases in blood pressure. Instead, breathe out as you lift the weight and breathe in as you lower the weight.

- **Seek balance.** Work all of your major muscles — abdominals, legs, chest, back, shoulders and arms. Strengthen the opposing muscles in a balanced way, such as the front of the shoulder and the back of the shoulder.
- **Rest.** Avoid exercising the same muscles two days in a row. You might work all of your major muscle groups at a single session two or three times a week, or plan daily sessions for specific muscle groups. For example, on Monday, work your arms and shoulders; on Tuesday, work your legs and so on.

When weight training, don’t:

- **Skip your warm-up.** Cold muscles are more prone to injury than warm muscles. Before you lift weights, warm up with five to 10 minutes of brisk walking or other aerobic activity.
- **Rush.** Move the weight in an unhurried, controlled fashion. Taking it slow helps you isolate the muscles you want to work and keeps you from relying on momentum to lift the weight.
- **Overdo it.** For most people, completing one set of exercises to the point of fatigue is typically enough. Additional sets may only eat up your time and contribute to overload injury.
- **Work through the pain.** If an exercise causes pain, stop. Try it again in a few days or try it with less weight.
- **Forget your shoes.** Shoes with good traction can keep you from slipping while you’re lifting weights.

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"When they **REACH THEIR LIMITS**, they must **NOT PUSH** themselves **BEYOND** that point and into a **DANGEROUS SITUATION**."

The public becomes very concerned when they read the newspaper and see headlines such as "Near mid-airs over the Atlantic," "Aircraft lands on wrong runway in Boston," "Aircraft lands at wrong airport" or "Pilot turns off both engines on takeoff." In this day and age, with all the sophisticated technology onboard to keep the pilot informed of position, altitude and emergencies, mistakes are still taking place; mistakes that are difficult to understand. The pilots are blamed for everything from complacency to incompetence. Whatever the problem, something needs to be done.

WHAT PROFESSIONALISM IS ALL ABOUT

LOREN E. DOUGHTY
Adapted from Rotor & Wing Magazine

The answer to these aviation headlines is "professionalism." Professionalism in terms of the way people conduct their jobs, their daily lives and their flying responsibilities — conducting them in a positive, intelligent and disciplined manner. Pilots should not be offended when it is said to "strive to be more professional" because, as professional pilots, we must periodically evaluate ourselves to assure 100 percent performance at all times. This is very important because not one pilot leaves their home in the morning planning to have an accident, but something happens during the course of time that gets them into a difficult position. Either the aircraft gets them into a terrible situation or they get themselves into trouble. Through professionalism and good training, a pilot can get out and stay out of potential trouble.

As professional pilots, there are definite steps and precautions that can be taken to keep professionally fit. The first is a strong, positive attitude. A positive attitude will change a pilot's habits, situational awareness and approach to flying performance. Just because a pilot has thousands of hours does not mark him as a professional. There is a lot more to it. A good attitude, combined with knowledge and skill are the marks of a true professional.

Professional pilots must constantly train and maintain the knowledge we already possess while reaching out and acquiring new knowledge. Pilots should constantly ask themselves if they have the knowledge and understanding of all systems in their aircraft. Do they know all the emergency procedures of the aircraft? If not, how do they expect to survive if an emergency takes place? Do pilots periodically return to the basic skills of flying? For instance, there is a basic skill of keeping one's head out of the cockpit or flying basic maneuvers upon which advance maneuvers are built. Can the pilots visualize all flight maneuvers prior to initiating them? If a pilot cannot visualize a flight maneuver or procedure, how can he perform it?

Pilots must continually work on developing and maintaining their flying skills, both visual flight rules and instrument flight rules. If a pilot plans on an IFR flight, then proficiency — not only in skill, but also in knowledge — is paramount. Pilots cannot go IFR inadvertently and survive unless they are current and proficient in IFR flying.

Professional pilots must discipline themselves to work in today's complicated aviation system. Pilots must stay abreast of the current Federal Aviation Regulations and any changes to those regulations. They must read and study the aircraft flight manual frequently. Pilots must know what their capabilities are and must discipline themselves not to exceed them. When they reach their limits, they must not push themselves beyond that point and into a dangerous situation.

As pilots, we have three common failings. First, pilots tend to be prouder of their willingness to take a chance than of their observance of caution, conservation and carefulness. Second, pilots tend to use powers of logic and reasoning to find justification for things they want to do, rather than determine what is best to do. Third, pilots will risk losses out of all proportions to possible gains if they feel that through their skill and luck they can probably avoid the loss.

If you were to sit with a pilot in his or her living room and present them with the above three failings, they would tell you they would do the safe thing. In reality, the chances are excellent they would gamble, for it is human nature. It comes back to the old conflict of knowledge versus desire. Being a pilot is a hazardous profession, but it is only as hazardous as you want to make it. Control or discipline the desires and temptations and be aware of the traps human nature has laid for you. It may save your life — and that is what professionalism is all about.

LOST

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, email safe.knowledge@conus.army.mil.

AVIATION

AH-64D

CLASS C

- The aircraft contacted the ground during a single-engine demonstration, resulting in damage to the turret assembly and main landing gear.
- The crew experienced a No. 1 engine NP exceedance during an evaluation flight. The instructor pilot assumed the controls and performed a single-engine emergency landing.

CH-47D

CLASS A

- During a night vision goggle dust landing, the aircraft landed hard. The landing gear and fuselage were damaged.

CLASS C

- A post-slingload flight inspection revealed airframe/sheet metal damage to the aircraft.

HH-60M

CLASS A

- An aircrew medic was killed when he came into contact with the operating aircraft as he was on foot for patient pick-up.

OH-58D

CLASS C

- The crew experienced a LOW ENG OIL caution during contour flight with vibrations and executed an emergency landing/running approach to a tank trail. Inspection revealed cracks in the vertical fin above the stinger mounting point and axial play in the tail rotor delta hinge spherical bearing.

TH-67A

CLASS B

- The aircraft entered a dynamic rollover condition during primary flight instruction on sod terrain.

UH-60A

CLASS C

- The aircraft touched down hard during environmental training, resulting in the stabilator striking the ground and the main rotor blade contacting the driveshaft cover.

UAS

MQ-5B

CLASS A

- The aircraft operator was unable to control flight during final approach for landing, and the unmanned aircraft crash landed in a nose-low attitude.

RQ-7B

CLASS C

- The crew experienced loss of communication link with the UA during flight. The aircraft crashed and was located in mountainous terrain.
- The crew experienced a FLAPS SERVO FAIL warning during flight training. The aircraft operator activated the recovery chute, and the UA went down on private property and sustained damage.
- The UA experienced RPM fluctuation following launch and subsequent engine failure. The recovery chute was deployed, and the UA was recovered with damage.

LOSSES AVIATION — FISCAL 2012 Class A/Fatalities thru December 2011

ATTACK	1/0
RECON	1/4
UTILITY	2/1
CARGO	1/0
TRAINING	0/0
FIXED-WING	0/0
UAS	0/0
TOTAL	5/5

as of Jan. 3, 2012

LOSSES GROUND — FISCAL 2012 Class A/Fatalities thru December 2011

AMV	4/1
ACV	2/1
PERSONNEL INJURY (includes weapons-handling accidents)	5/5
FIRE/EXPLOSIVE	1/0
PROPERTY DAMAGE	0/0
TOTAL	12/7

as of Jan. 3, 2012

GROUND

Other

CLASS A

- A Department of the Army Civilian was ejected and killed when the government-operated vehicle he was riding in overturned in a 90-degree turn. The DAC driver of the vehicle, who was also ejected, received serious injuries.

Personnel Injury

CLASS A

- A Soldier was killed and five others hospitalized when their tent was struck by a round from a mortar team that was returning fire during enemy engagement.

CLASS B

- A Soldier's leg was medically amputated after he was struck by a round from his shotgun. The Soldier reportedly dropped the shotgun as he was unloading it, causing it to fire.
- A Soldier suffered a broken pelvis upon landing during a mass-drop parachuting exercise.

DRIVING

POV

CLASS A

- A Soldier was killed when he lost control of his pickup in a curve and overturned.
- A Soldier was ejected and killed when his pickup struck a curb, ran off the road and overturned.
- A Soldier was killed when his vehicle struck a concrete pillar.
- A Soldier was driving with another Soldier as a passenger when their vehicle went into the median, collided with trees and overturned. The passenger was killed and the driver hospitalized. Both were wearing their seat belts, and the air bags functioned properly.

POM

CLASS A

- A Soldier was riding his motorcycle across a bridge when he rear-ended an SUV. Although wearing his DOT-approved helmet, the Soldier suffered serious head injuries and was placed on life support. The Soldier had participated in a motorcycle mentorship program.

LOSSES POV/POM — FISCAL 2012 Class A/Fatalities thru December 2011

CAR	12/11
SUV/JEEP	6/6
TRUCK	2/2
MOTORCYCLE	6/5
PEDESTRIAN	1/1
OTHER* (*Includes vans, ATVs, snowmobiles and bicycles)	0/0
TOTAL	27/25

as of Jan. 3, 2012 — Fiscal Year 2011: 21 — Three Year Average: 24

OFF-DUTY

Pedestrian

CLASS A

- A Soldier wearing dark clothing was killed when he was struck by a vehicle while crossing a major thoroughfare before dawn.

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IN A 'PINCH': PREVENTING PRE-DEPLOYMENT ACCIDENTS

KNOWLEDGE

VOL 6 MARCH 2012

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

GOT LEADERS?

+

CREW COORDINATION

- HEAT INJURY PREVENTION
- INSTRUMENT FLIGHT
- FATIGUED DRIVING

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LEADERS SOLDIERS CIVILIANS FAMILIES

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Mission statement: The United States Army Combat Readiness/Safety Center (USACR/Safety Center) supports our Army by collecting, analyzing and communicating actionable information to assist Leaders, Soldiers, Families and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please email comments to **safe.knowledge@conus.army.mil**.

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JUST THE FACTS

One of the things I look forward to most in my job is traveling to talk with Leaders and Soldiers across our Army. It's great to see firsthand the tremendous job our Soldiers are doing every day, while also helping Leaders at all levels address the safety challenges within their formations. But there's one thing about these conversations that sticks with me after every trip: Almost without fail, they focus on the issue of indiscipline and seat belt use in privately owned vehicles.

During all my years as an NCO, I've heard every excuse imaginable from Soldiers who willingly choose not to wear their seat belts. Here are a few of them, followed by some facts on why buckling up is so important.

"Sergeant Major, I have an air bag, so I don't need to wear my seat belt." FACT: Air bags only supplement the protective effects of seat belts — they do not replace them. Driver and passenger air bags, as well as new iterations of curtain and side impact bags, are not designed to be used alone. In fact, unbelted vehicle occupants can be seriously injured or killed by the force of activated air bags, which deploy at speeds greater than 100 mph.

"Well, Sergeant Major, I drive a truck, so I'm safe. It sits so high no car can hurt me." FACT: This excuse is apparently pretty popular, since National Highway Traffic Safety Administration statistics show seat belt use by pickup truck drivers lags significantly behind those in other vehicles, including passenger cars, SUVs and minivans (75 percent versus 86 and 88 percent, respectively). But in reality, pickups are three times more likely to roll during crashes than other vehicles, and rollovers are the single-greatest cause of injuries and fatalities on American roadways each year.

"But Sergeant Major, I only need my seat belt when I'm driving long distances. I'm just going a few miles around post now." FACT: According to the state of Florida's Click It or Ticket campaign, most fatal vehicle accidents occur within 25 miles of home and at speeds below 40 mph. Whatever speed you're traveling is the speed at which your body, led by your head, will hit the windshield or dash should you be involved in an accident unbelted. For every 10 mph in a traffic accident, crash forces are roughly equivalent to the fall from a one-story building — and your head won't know the difference between glass, plastic or asphalt.

"You know, Sergeant Major, I'm a safe driver, so I don't need a seat belt." FACT: Not everyone takes pride in their driving. Bad drivers are everywhere, and bad things happen to good drivers. You also can't control the weather, mechanical malfunctions or events like tire blowouts, either on your vehicle or someone else's. You don't want to be remembered as that "safe" driver who died because you failed to buckle up.

And last but not least …

"Uh, Sergeant Major, I just forgot to put my seat belt on." FACT: It takes about three seconds to buckle a seat belt, states the U.S. Department of Transportation. If you can remember to grab your cellphone or music player before hitting the road, you have both the time and the memory to reach back for your belt and snap it into place. Make it a priority, and you'll be surprised how quickly buckling up becomes an automatic habit.

Still not convinced? Here are two more cold, hard facts for you. First, Soldiers are required by regulation to wear seat belts at all times in POVs, whether as a driver or passenger. It's not a choice, and it doesn't matter whether the state in which they live has a seat belt law. Second, enforcing standards saves lives and engaged leadership works. Driving is a privilege, not a right, and as Leaders, we have the power of both corrective action and corrective training through programs like Roadrageous to steer high-risk Soldiers back to a safe path. Use that power wisely and every time it's needed. We can't risk losing even one of our Soldiers because we didn't take the time to make an on-the-spot correction or have a conversation on indiscipline behind the wheel.

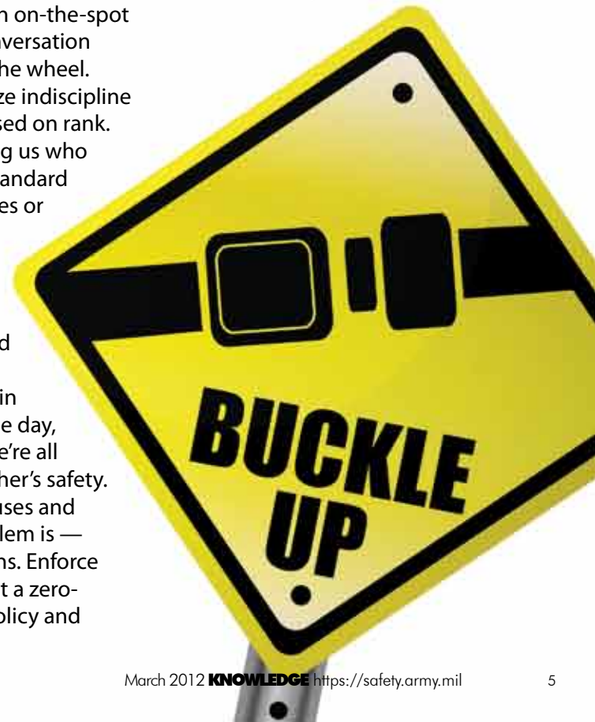
We also have to realize indiscipline doesn't discriminate based on rank. There are Leaders among us who willfully disregard the standard every day in their vehicles or on their motorcycles. Don't be afraid to correct your peers or even those above you in the chain of command and talk to your seniors when a fellow Leader is in trouble. At the end of the day, we're all Soldiers, and we're all accountable for each other's safety.

We've heard the excuses and we know what the problem is — now it's time for solutions. Enforce the standard, implement a zero-tolerance indiscipline policy and engage with your Soldiers on the seat belt issue. There's nothing more important to our Soldiers, Family members and Civilians than safety, and that begins with you.

Army Safe is Army Strong!

RICK STIDLEY
Command Sergeant Major
U.S. Army Combat Readiness/Safety Center

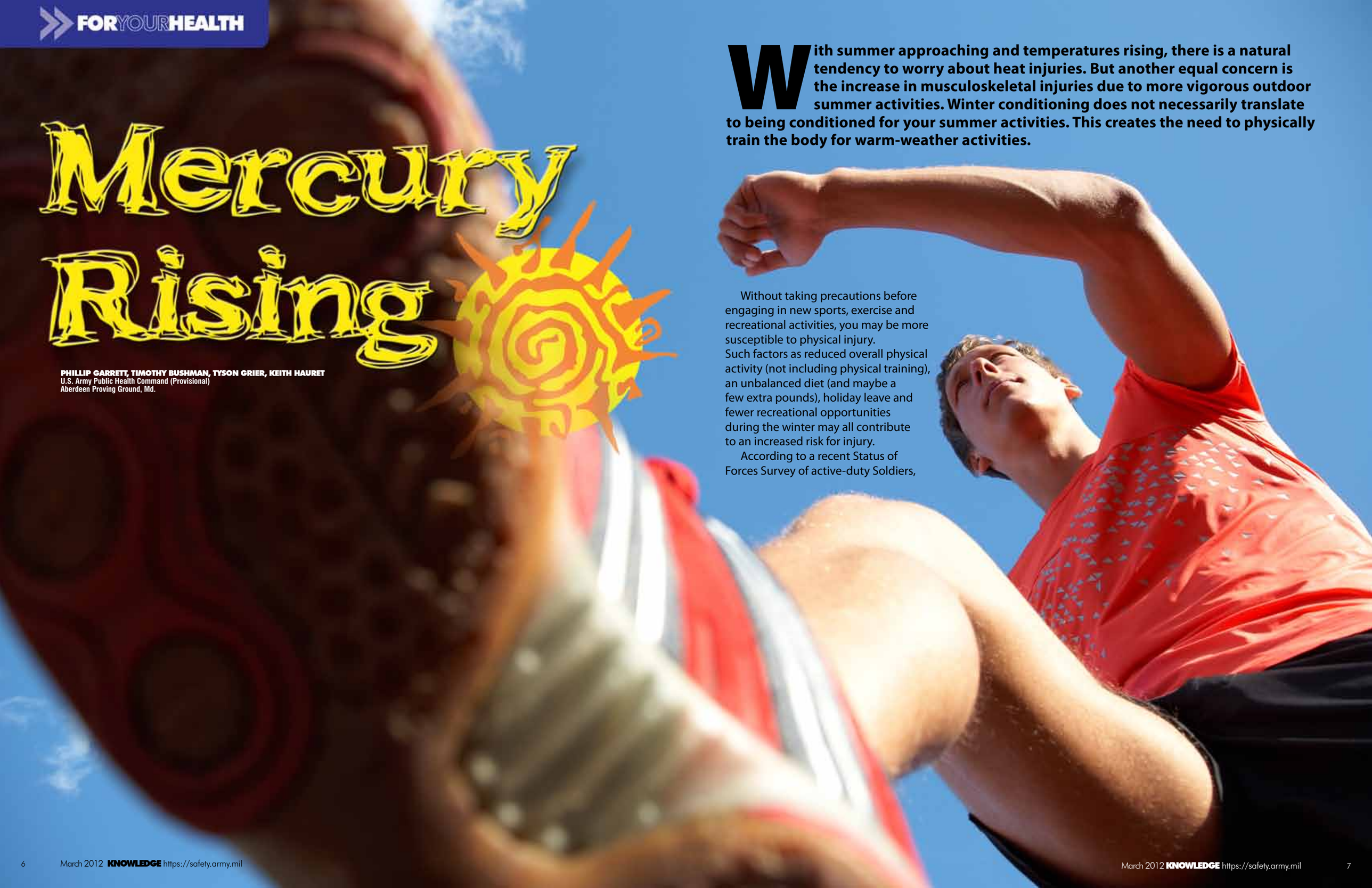
"Don't be **AFRAID** to **CORRECT** your **PEERS** or **EVEN** those **ABOVE YOU** in the **CHAIN** of command and **TALK** to your **SENIORS** when a fellow Leader is in **TROUBLE.**"



Mercury Rising

PHILLIP GARRETT, TIMOTHY BUSHMAN, TYSON GRIER, KEITH HAURET
U.S. Army Public Health Command (Provisional)
Aberdeen Proving Ground, Md.

With summer approaching and temperatures rising, there is a natural tendency to worry about heat injuries. But another equal concern is the increase in musculoskeletal injuries due to more vigorous outdoor summer activities. Winter conditioning does not necessarily translate to being conditioned for your summer activities. This creates the need to physically train the body for warm-weather activities.



Without taking precautions before engaging in new sports, exercise and recreational activities, you may be more susceptible to physical injury. Such factors as reduced overall physical activity (not including physical training), an unbalanced diet (and maybe a few extra pounds), holiday leave and fewer recreational opportunities during the winter may all contribute to an increased risk for injury.

According to a recent Status of Forces Survey of active-duty Soldiers,

more than half of all Soldiers (59 percent) get injured each year. Almost 30 percent of Soldiers had an injury from sports, exercise and recreational activities. Half of these injuries were from running and about two-thirds were lower body injuries. The most common injuries experienced from these activities were sprained joints, strained muscles, tendonitis or bursitis, fractures, and joint dislocations or separations. Because of injuries such as these, nearly 40 percent of the injured Soldiers were placed on limited duty for 15 or more days. Though many injuries are caused by trauma (such as falling or colliding with another player), many more injuries are caused by overuse or overtraining. With PT and sports-related injuries playing such a big role in the Army, it is important to take certain steps to help prevent these injuries from occurring.

Tips to help prevent sports and PT injuries for individual and group activities include:

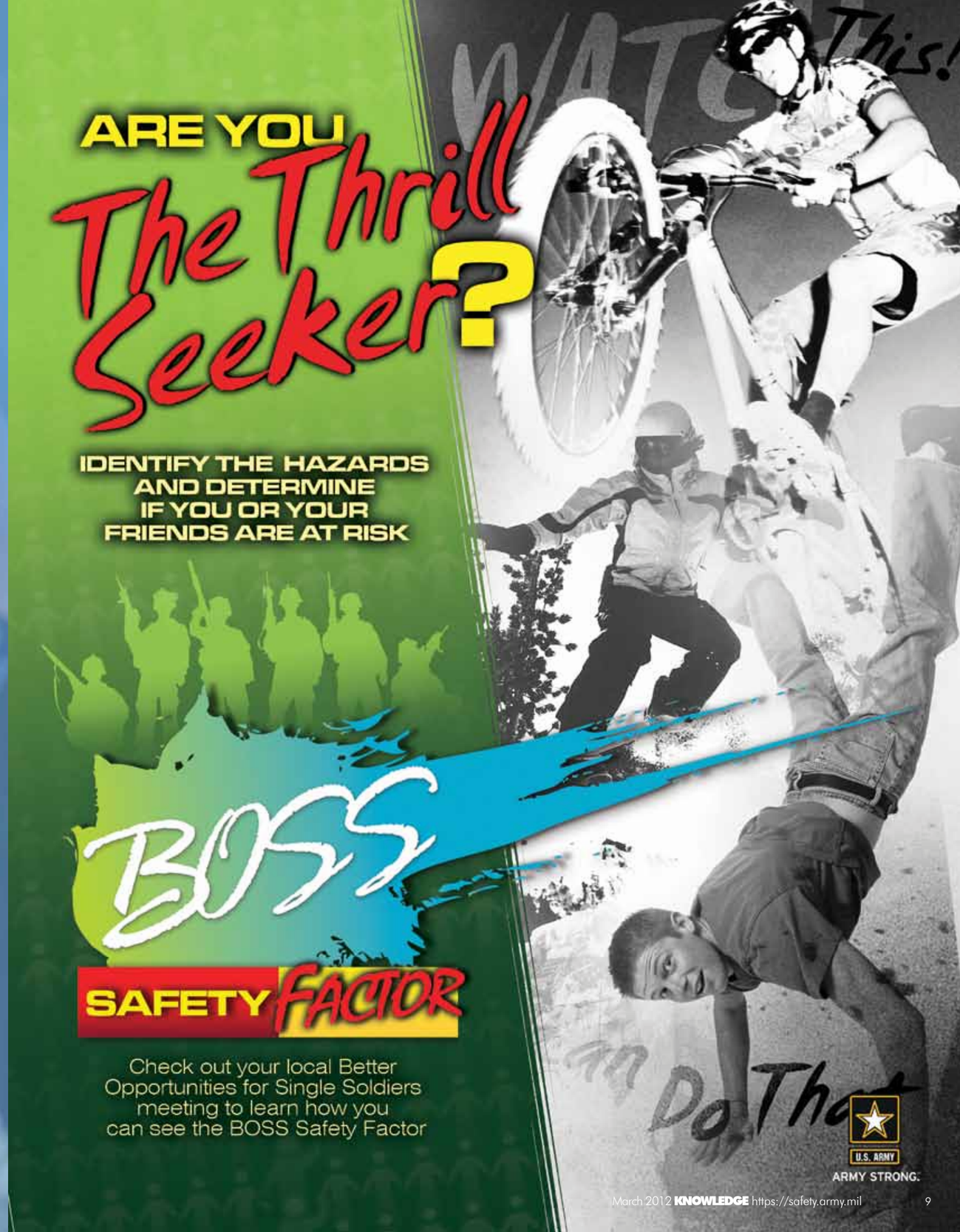
- Wear running shoes that fit comfortably and replace them after 300 to 500 miles.
- Run on stable ground; avoid gravel, loose dirt and potholes.
- Wear sports attire that helps to keep the body cool, such as moisture-wicking fabrics that allow sweat to quickly evaporate through your clothing.
- Wear an ankle or knee support/brace if you are susceptible to ankle rolls or knee injuries.
- Remove any jewelry that could get caught in quick movements.
- Wear shoes that are appropriate for the activity, such as cleats, to avoid slips, trips or falls.
- Wear sports-specific padding and equipment (helmets, protective eyewear, etc.).
- Communicate with team members to avoid collisions.
- When possible, always wear a mouth guard (basketball, soccer, football, martial arts/combatives).
- Ensure equipment is maintained and perform safety checks.
- Always wear a U.S. Coast Guard-approved life jacket when in open water.

Before any physical activity, always remember to warm up for 5 to 10 minutes with light cardiovascular work and exercises that simulate the movements you will perform in your activity. It is also important to cool down and continue to hydrate your body with water or a carbohydrate sports drink at the end of any exercise. One way to monitor fluid loss and replacement needs is to record your weight before and after workouts. In conditions of 85 F and 40 percent humidity, athletes will lose about 2 to 4 pounds of body weight per hour through sweat loss. Regardless of activity, Soldiers participating in recreational sports will lose a significant amount of water through sweat. The aim of athletes should be to replenish water levels lost from exercise and physical activity. Keep in mind that by the time an athlete experiences thirst, a significant amount of body fluid has already been lost and dehydration has set in. The Institute of Medicine recommends 3.7 liters of water per day for men and 2.7 liters for women. When exercising, an additional 1 to 2 liters should be consumed for endurance bouts lasting over an hour. It is also important to replenish carbohydrates and protein (a 3:1 ratio is recommended, in which you consume three carbohydrate grams for every single gram of protein) used during exercise and recreational activities within 30 minutes of ending the activity.

If you experience a serious injury (such as a concussion, fracture or dislocated joint) from PT or sporting activities, seek medical treatment and inform unit leadership if you are given limited duty restrictions. For a minor injury (sprain, strain, abrasion or bruise), always report the injury and remember the acronym RICE (Rest, Ice, Compression, Elevation). You must rest to give the injury time to heal, which could take several days or weeks, depending on the severity of the injury. Use ice (20 minutes on, 20 minutes off for four to six hours) to reduce swelling of the affected area and decrease the pain. Compression bandages will help to stabilize the joint and elevating the affected area will also help reduce swelling. If pain and swelling persists, seek medical treatment.

DID YOU KNOW?

Rising temperatures and summer weather present persistent challenges for Soldiers and Civilians operating in theater and at home. The Army team must remain watchful of the increased hazards associated with spring and summer activities and stay engaged throughout this high-risk season. Visit our safety multimedia page, https://safety.army.mil/multimedia/, to check out our heat injury prevention video and other resources conveniently available to all Leaders, Soldiers, Family members and Civilians.



Commit to the Gauges

CHIEF WARRANT OFFICER 2 ALEX DROUIN
C Company, 7th Battalion, 101st Aviation Regiment
Fort Campbell, Ky.

Air Force weather has a history of being wrong, and tonight was no exception. We were briefed to expect a 4,000-foot ceiling with visibility of four to seven miles — in other words, a beautiful night. We were flying a UH-60A medevac aircraft, and our plan was to depart Lexington, Ky., and airport hop to the outer edge of Nashville's Class C airspace before heading back west to Fort Campbell. Little did we know what was in store for us.

Prior to departure, I called the weather folks to get an update and brief time. They told me there were no changes to the weather and for us to have a safe flight. Departing to the south was uneventful and actually pleasant. The atmosphere in the cockpit was relaxed, with everyone enjoying a smooth night vision goggle flight home. Our GPS had broken on the way to Lexington, so our primary means of navigation was the Mark 2 eyeball and map. As a backup, we had plugged in the electronic data management kneeboard.

Halfway to Nashville, the ceilings started to drop and I found myself closed in by a layer of fog and rain. Initially puzzled, I did what most aviators do and descended to stay below the cloud layer. The radar altimeter initially read 1,000 feet above ground level, then 700, 500 and finally 400. We entered the hilly area between the cities of Lexington and Nashville and, more importantly, a weather cell our forecasters weren't tracking. Within an instant, I found myself with two choices: descend farther and break right to follow a sucker hole, or commit to instruments and start my climb. Knowing that a descending turn in near instrument meteorological conditions would most likely result in a very bad situation, I pulled in power and started to climb. The whole process happened so fast that my pilot had no idea we were climbing until I calmly asked that he enter 7700 into the transponder.

We practice encountering inadvertent IMC with every annual proficiency and readiness test, so the initial entry was a non-event, but then what? I had practiced what to do while in Fort Campbell's airspace, but I was in the middle of nowhere without a GPS to tell me where we were. I then asked the PI to take the

> "Halfway to Nashville, the **CEILINGS STARTED** to **DROP** and I found myself **CLOSED** in by a **LAYER OF FOG** and **RAIN.**"

controls so I could figure the next step. We never practiced what to do when IIMC and in the middle of farm country!

Thinking back, I remembered an instructor pilot once told me about always having an en route low-altitude map for these types of situations. I grabbed mine and then realized we still had an operational EDM. With the aid of the EDM, I figured we were 15 miles south of the New Hope VHF omnidirectional range, and the ELA told me that Indy Center was the controlling agency. After contacting Indy and picking up an instrument flight rules clearance, we continued west under radar vectors to Fort Campbell. The weather broke about 20 minutes later with at least seven miles visibility and 4,000-foot ceilings, just as weather had told us. With the bad weather behind us, we canceled IFR and continued with our training on the reservation, just thankful to be home.

Lessons Learned

Don't be afraid to commit to IIMC. Breaking right and descending may have seemed like a viable option, but that would have been the most dangerous choice for the crew.

The first rule of business is to commit to the gauges, specifically the attitude indicator, and climb. Get away from the ground. All too often, we read accident reports stating that the crew decided to make a 180-degree turn instead of just committing to the instruments. Your life, as well as the lives of the crew, depends on the pilot in command, or the PI, being comfortable with immediately committing to IIMC. Just fly the aircraft. Our bodies are fantastic at lying to us about our movement in space. We call this spatial disorientation, and anyone with more than a day of flying has experienced this in some way. With clouds obscuring the horizon and only a few lights to work with, the descending turn would have been a prime condition to experience "spatial D."

Finally, always be prepared with the right publications. As professional aviators, Army pilots should always have current aircraft pubs with them no matter the training situation. Weather has been known to be wrong in the past, and just because you did not intend to fly in the clouds doesn't mean it can't happen. Know what to do and how to do it when things fall apart. We practice emergency procedures all the time, but do we ever practice IIMC procedures? Next time you are on a cross-country visual flight rules flight and in the middle of nowhere, ask yourself, "If I were to go IIMC right now, what would I do?" Be prepared. It may take you a few minutes to find the answer in the pub.

> "**WEATHER** has been known to be **WRONG IN THE PAST**, and just because you did not intend to fly in the clouds **DOESN'T MEAN** it can't **HAPPEN**."

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Done Too Soon

CHIEF WARRANT OFFICER 2 JOSHUA MAILLARD
Detachment 2, D Company, 126th Aviation
Virgin Islands National Guard
St. Croix, U.S. Virgin Islands

The few lights near the road flashed by on either side of Staff Sgt. Harold Myers as he accelerated on his Suzuki Hayabusa. He could hardly imagine what the nearly 200 horsepower of his first motorcycle could do. Nor could he imagine what was about to happen to him.

This story takes place on the little island of St. Croix in the U.S. Virgin Islands. Myers, well liked among his peers in the 661st Military Police Company, was an easygoing, laid-back individual. He'd just come from a deployment in Iraq — his second deployment in four years. A U.S. marshal in the civilian job he'd held for many years, he was slated for another deployment — this one to Kosovo. Before deploying again, he decided to buy his first motorcycle. The Hayabusa was said to be the world's fastest bike, which seemed a bit much for a first-time rider.

He'd had the bike about two months when he was on his way home from work, riding toward the island's west side. Speeding on a poorly lit section of highway, he lost control and crashed into a guardrail. Although he was taken to a hospital, he later died there. So what went wrong?

There were a number of factors, some obvious and some less so, that contributed to Myers' death. For example, he chose a Hayabusa, a powerful sport bike that would have taxed the skills of a highly experienced rider, let alone one without any type of training. Maybe after his two deployments he was feeling invincible and that attitude got the best of him. Maybe that was the unseen, underlying factor that led him to be indisciplined when riding. Whatever the reason, he ignored getting the motorcycle training required by the Army — training that might have revealed his need to carefully develop his riding skills. Indisciplined, he violated the speed limit, even though he, as a law enforcement officer, clearly knew it was both wrong and dangerous. Although he made the right choice in wearing a helmet, it was not enough to save his life. Personal protective equipment is not a silver bullet that can protect riders from the consequences of every bad choice. Speed, alone, doesn't necessarily kill; however, speeding in the wrong places all too often does.

There was speculation he was having a lot of personal problems. The week before the accident, he attended a deployment farewell for his best friend, who was leaving for his second tour in Iraq. He'd miss his friend and maybe that weighed heavily on top of the other problems he was having. Looking back, maybe the command could have paid a little more attention to what was going on in his life before the accident. Had someone taken the time to speak to him about his choice of a Hayabusa as his first motorcycle, maybe he would have listened. Most of all, he needed proper training to give him the riding skills to handle his bike safely. But he didn't get those skills and, without them, mistakes were inevitable. And on a Hayabusa, small mistakes can have big consequences.

So what can be learned from what happened?

As riders, we need to always know our limits and look out for signs in fellow Soldiers that something is wrong. It's important that Soldiers returning from a deployment go through a complete evaluation and have any known or potential problems documented. When we see a Soldier having problems, we have a responsibility to report that to our command and get the Soldier help. Never take anything for granted. Just because someone looks OK doesn't mean they really are. Most of the time there are warning signs; the key is recognizing them.

Any number of things going on inside Myers' head may have contributed to this accident. Among those could be what motivated him to choose the Hayabusa. Maybe feeling a sense of invincibility overcame his common sense. For a first bike, he could hardly have made a worse choice.

Despite being greatly missed by his friends in his unit, nothing can bring Myers back. But there is something to be learned from his death. If we watch out for one another and spot the warning signs of indiscipline, maybe we can keep a friend's life from being done too soon. Don't leave a fallen comrade behind.

> "Personal protective equipment is **NOT A SILVER BULLET** that can **PROTECT** riders from the consequences of every **BAD CHOICE.**"

Finishing in a "Pinch"

SGT. RICHARD HUI
D Company, 2nd Battalion, 25th Combat Aviation Brigade
25th Infantry Division
Wheeler Army Airfield, Hawaii

DID YOU KNOW?

The Ground Risk Assessment Tool can assist during the composite risk management planning and decision-making process. To access GRAT and related accident mitigation tools, visit https://grat.safety.army.mil. Carefully identifying, assessing and controlling hazards associated with specified missions and tasks will reduce the probability of accidents happening.

It's amazing how fast a battle buddy can get hurt. Most of us take as many precautions as possible and strive to accomplish all assigned tasks. Occasionally, though, no matter how we go about it, we get caught up in the moment.

As most of us know, the process of packing equipment for a deployment can get hectic. Everything needs to be accounted for, consolidated and shipped out. Trying to coordinate through it all has its difficulties, but, be that as it may, the pre-deployment tasks still need to be completed. Toward the end, we all hope for a little more downtime with our Families and friends before we begin our deployment rotation.

My unit was in full swing with pre-deployment operations. On this particular day, we had to move two tents worth of work stands, trailers and a lot of random ground support equipment about 150 meters from one location to another. Every available body in our company gathered, ready to execute. A simple task and only a short distance to go … no problem, right?

We positioned some trucks and started piling equipment in the back of them. The operation was very organized and we were moving faster than anticipated. We had a large group of movers loading trucks, drivers moving equipment and receivers arranging the equipment. Battle buddies were on the fast track, moving all over the place when "it" happened — "That Guy" appeared. You know who That Guy is; he's the one you never want to be.

It was time to move an axle from a disassembled trailer. We were lifting the front axle, wheels, tires and steering bar as we walked out of the tent and toward the back of the truck. Once we set the axle down, we immediately pushed it toward the front of the truck to clear the tailgate. The wheels tilted and, at that moment, That Guy was still holding onto the steering strut. Suddenly, he found both of his hands pinched between the steering strut and the axle housing.

He let out a loud, "Ahhhhhhhh!" We immediately stopped pushing and watched as he tried to pull both hands free. He frantically swung his head, upper body and shoulders back and forth trying to get his hands loose, but without success. Someone shouted, "Back up!" and we tilted the axle back so he was able to get free. Luckily, he didn't break any bones and escaped with only minor scratches and bruises.

Even though this incident resulted in only minor injuries, it could have been worse. Looking back now, had the Soldier maintained situational awareness of where he placed his hands, this accident could have been prevented. My advice to fellow Soldiers is when assigned a task, try not to over-think it — even a task as simple as moving equipment from one spot to another.

FYI

Equipment Training Guides assist operators in becoming more familiar with the safety and operational aspects of their assigned vehicles. To access vehicles and ground equipment training guides, check out our Driver's Training Toolbox at https://safety.army.mil/drivertrainingtoolbox/.

CREW COORDINATION *Saves the Day*

CHIEF WARRANT OFFICER 5 KEVIN M. PURTEE
Joint Forces Headquarters
Texas Army National Guard
Austin, Texas

I was in an AH-64 battalion, and we were at gunnery. The mission was to move an aircraft from the rearm pads to a holding area — a simple 30-second flight. My stick buddy was in the front seat and flying the aircraft as we departed from the rearm pads and headed for the holding area — a long, narrow open spot in the trees. The aircraft in the holding area were parked nose to tail, and he set up for an approach between two of the parked aircraft.

As we came down on final, we lost view of the parked aircraft to our front, which is normal in an AH-64. However, I noticed he was shooting the approach to the parked aircraft instead of to the open spot to the aircraft's rear. I asked him, "Do you have the helicopter?" No response. I asked again, "Do you have the helicopter?" Still, no response. I announced, "I have the controls," and executed a go-around. As we came around the second time, I said, "You have the controls." He didn't say anything. Instead, he held up his hands to indicate I should keep flying.

It was strange that he wouldn't talk to me. I thought that perhaps he was mad. When we landed, I asked if he could hear me. He gave me a thumbs-up. I asked if he could talk. He gave me a thumbs-down. His microphone had failed.

In the span of about five seconds, our routine, 30-second flight had almost become a major accident. We could have destroyed two expensive helicopters, injured or killed ourselves and injured or killed a crew chief who was working on the parked helicopter. Instead, we salvaged the situation.

Crew Coordination Techniques Worked

The crew coordination techniques we had learned in previous training saved the day. Specifically, we used our crew briefing, standard cockpit operating procedures and the two-challenge rule. We also managed to avoid problems with complacency and excessive professional courtesy.

My stick buddy and I had both been flying Apaches for a while. He was an instructor pilot and was the pilot in command on the flight. I believe he's a great pilot and, admittedly, there's a tendency on my part to trust him a lot more than I would a less-experienced or skilled pilot. In other words, it would have been easy for me to be complacent. Fortunately, that didn't happen. I was paying attention and reacted accordingly.

Less-experienced aviators might be reluctant to question an IP or a senior-ranking person. This is the problem with excessive professional courtesy. My stick buddy and I are peers, so it was really not an issue in this case. Additionally, during our crew briefings, he made it clear that we should speak up if anything made us uncomfortable.

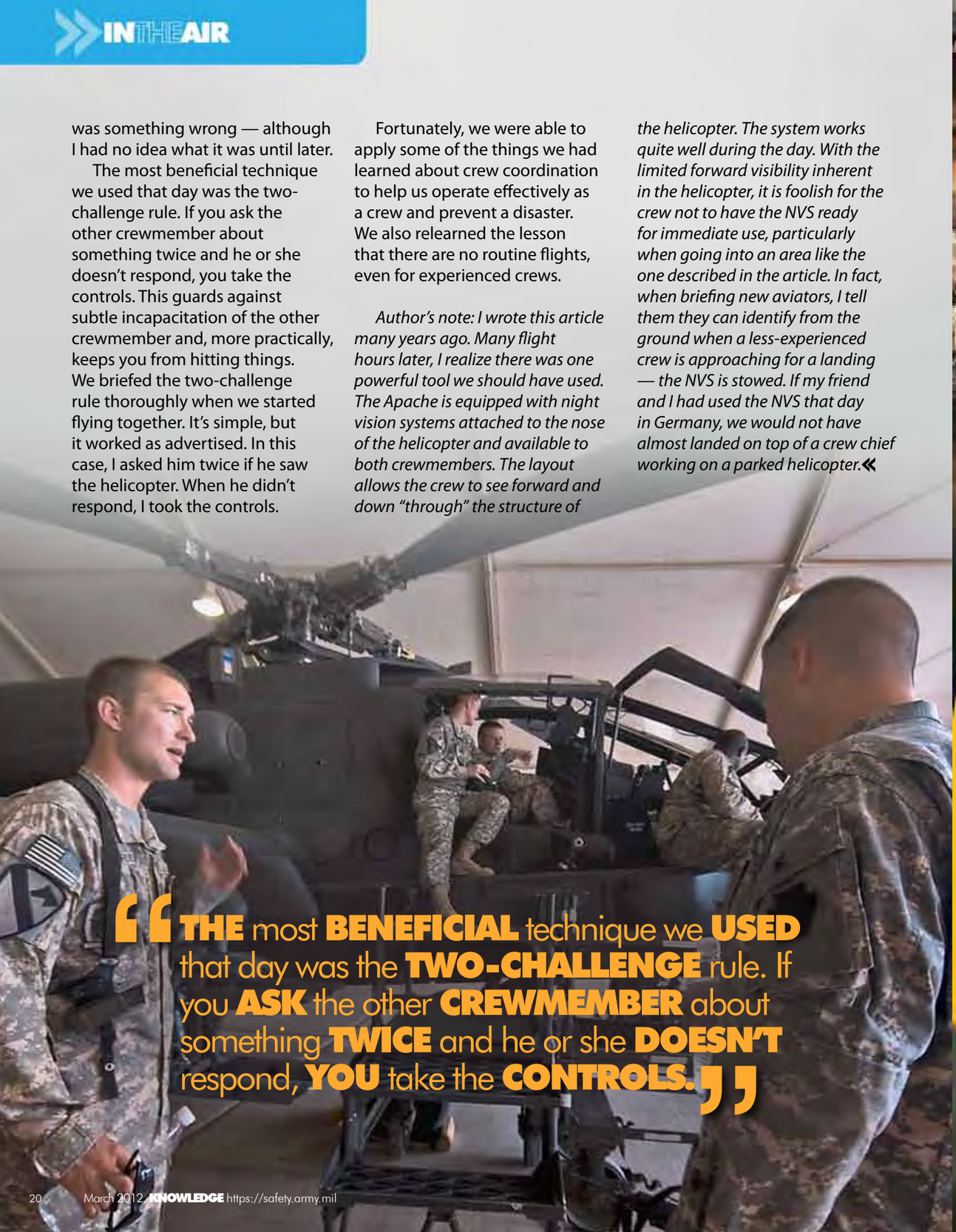
Standard cockpit operating procedures were helpful because when his microphone failed, I knew immediately we weren't doing things the way we normally did. The simple fact that we weren't following our normal procedures indicated to me there

was something wrong — although I had no idea what it was until later.

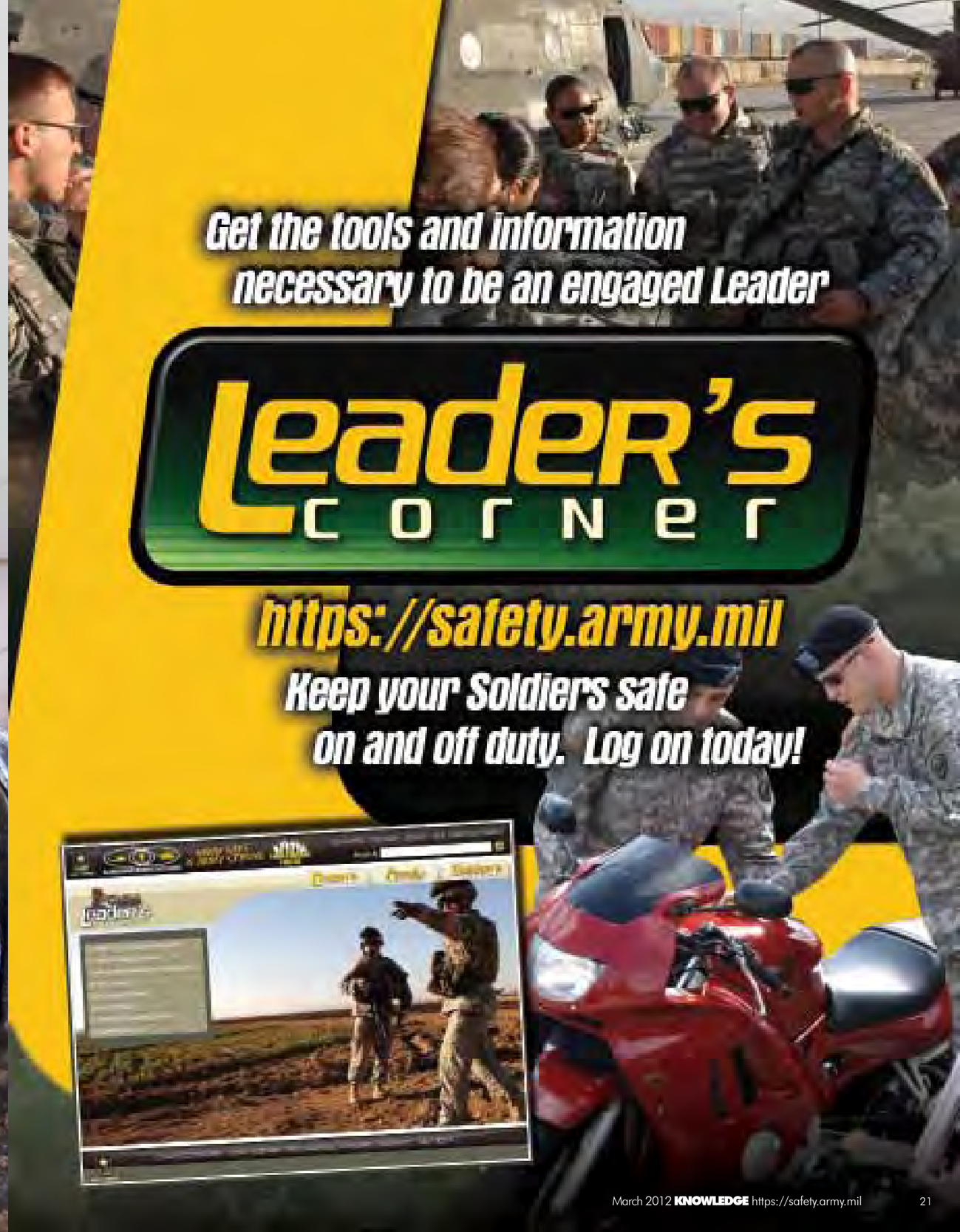
The most beneficial technique we used that day was the two-challenge rule. If you ask the other crewmember about something twice and he or she doesn't respond, you take the controls. This guards against subtle incapacitation of the other crewmember and, more practically, keeps you from hitting things. We briefed the two-challenge rule thoroughly when we started flying together. It's simple, but it worked as advertised. In this case, I asked him twice if he saw the helicopter. When he didn't respond, I took the controls.

Fortunately, we were able to apply some of the things we had learned about crew coordination to help us operate effectively as a crew and prevent a disaster. We also relearned the lesson that there are no routine flights, even for experienced crews.

Author's note: I wrote this article many years ago. Many flight hours later, I realize there was one powerful tool we should have used. The Apache is equipped with night vision systems attached to the nose of the helicopter and available to both crewmembers. The layout allows the crew to see forward and down "through" the structure of the helicopter. The system works quite well during the day. With the limited forward visibility inherent in the helicopter, it is foolish for the crew not to have the NVS ready for immediate use, particularly when going into an area like the one described in the article. In fact, when briefing new aviators, I tell them they can identify from the ground when a less-experienced crew is approaching for a landing — the NVS is stowed. If my friend and I had used the NVS that day in Germany, we would not have almost landed on top of a crew chief working on a parked helicopter.



"THE most BENEFICIAL technique we USED that day was the TWO-CHALLENGE rule. If you ASK the other CREWMEMBER about something TWICE and he or she DOESN'T respond, YOU take the CONTROLS."



Better Safe than Sorry

CHIEF WARRANT OFFICER 2 CARL GATLIN
1st Battalion, 158th Aviation Regiment
U.S. Army Reserve
Conroe, Texas

When I woke up that morning, I never in my wildest dreams thought I would be out of work for a couple of weeks by day's end. I went through my usual morning ritual and headed off to my part-time job. I was working in property management, and part of my responsibility was to survey a nine-acre storage facility to see if there had been any theft or damage during the previous night.

To do this, I had a golf cart to drive around the property. Today was a good day so far; my wife even offered to drive the cart for me. Always happy to have her assistance, I took her up on the offer. Everything was going just fine until I got bored. We all know boredom is often what starts us on the road to impetuous activities. According to personal development pioneer and radio legend Earl Nightingale, "You'll find boredom where there is the absence of a good idea." That's exactly what my next thought was not … a good idea.

I decided I should try some golf cart surfing, at least that's what I called it. The objective was for me to hang off the side of the golf cart, trying to get it to come up on two wheels as my wife drove. She, of course, told me that was not a good idea. I, being a very hardheaded individual, decided to surf anyway. There was one thing, however, I didn't take into account — potholes.

Thanks to me distracting her, she accidentally hit — most likely — the only pothole on the property, which caused my foot to slip off the side of the cart. When my foot hit the ground, the tire sucked me under the cart. I was stunned; my wife had just run over me! I rolled out from under the cart with two cracked ribs and a bruised hip. The entire left side of my body was black and blue. Still, I know the situation could've been worse. It's a small miracle I didn't receive internal injuries.

I learned some important lessons that day. If you're going to do something dangerous, first stop, determine and weigh all the hazards involved and their consequences. Second, if you determine the activity is worth taking a risk, make a plan for what you're going to do, then develop controls to reduce the risks. After that, figure out a way to put those methods into action. Lastly, stick to your plan and follow the methods you devised to reduce the risks. In retrospect, composite risk management is not just for military activities. It's a good process to implement in all areas of your life.

You've heard all the clichés — "An ounce of prevention is worth a pound of cure," "Safety doesn't happen by accident" or "Better a thousand times careful than once dead." I know these sayings are well worn, but the premise behind them is very sound; it is better to be safe than sorry.

Take a moment to think because that instant of thoughtlessness could be the last of your life. Just remember, you don't have to give up fun activities or even those that other people might consider insane. If you wish to participate in those extreme activities, just do so in a well-thought-out manner. Always make safety your primary concern. Those little moments can change your life forever. I was fortunate that this one only changed mine for a couple of weeks.

> "**IN RETROSPECT,** composite risk management **IS NOT JUST FOR** military activities. It's a good process to implement in **ALL AREAS** of your life."

Got Leaders?

If you don't have a Motorcycle Mentorship Program supported by senior Leaders, then maybe you don't have one at all.

SGT. MICHAEL P. BENNETT
B Company, 2nd Battalion, 25th Aviation Regiment
Schofield Barracks, Hawaii

Five years ago, I was just another motorcycle rider in a typical Army unit. Back then, the only motorcycle training available for my unit was the Motorcycle Safety Foundation's Experienced *RiderCourse*. If you were new to riding and didn't have at least $250 to fork over for a beginner's course, your motorcycle education was relegated to barracks hearsay and listening to your friends' near-death experiences. Soldiers who wanted to try out riding waited for the weekends and rode bikes they'd purchased and hidden off post or borrowed from their friends. Too often they'd mix in dangerous ingredients like speed, lack of personal protective equipment and alcohol.

From top to bottom, the command turned a blind eye to this type of behavior. Their response was to have Soldiers sign a document saying if they died in a motorcycle crash and weren't licensed, trained or wearing their PPE, their Families would lose their survivor benefits. Most took that with a grain of salt — just another threat rolling downhill.

As new Soldiers rotated in, more and more bikes began showing up in the barracks parking lot. Four bikes turned into 20 in the blink of an eye. Most riders had a good deal of experience and wore custom leather jackets or one-piece suits. Everything seemed to be on the level. They had post decals and PPE, so I assumed they were in compliance with the post's standards.

As the weeks passed, I noticed the "days since the last fatality" sign never made it much past 30. I wondered why so many "Joes" were losing their lives. I wasn't the only one who was concerned. My unit had recently transitioned from a company into a new battalion. Our new battalion commander let it be known that he wasn't going to allow his Soldiers to become statistics. We'd all heard this before and figured it meant more painful procedures and paperwork. You know, "Inspect the Soldiers twice as much — that will cut the problems in half." I guess that's a theory they teach at West Point.

Our new commander called for a meeting of all motorcycle riders and any Soldiers interested in riding. We were to gather at the crack of dawn Friday morning at the post theater. Any Soldier who had a bike was ordered to bring it. That's when the rumors began to fly. One of the more ridiculous ones claimed that the new commander would "outlaw" motorcycles. Another rumor was he would have the MPs inspect every bike and, if any failed, the Soldier would be ticketed and forced to pay to have it hauled away. I didn't believe these rumors, but after you hear something so many times, you have

to wonder if there isn't some truth involved. It was starting to get to me.

Friday finally came and I was sitting outside the theater with hundreds of other riders, all just as curious as I was. After a little while, I heard a single bike coming up the road and looked to see if I knew who it was. As the bike approached, I saw it was our new battalion commander. He had a nice anniversary edition Harley-Davidson Road King. It was weird because I never pictured him as a rider. After he came to a stop, he announced his reason for gathering everyone together and what the day's activities would be. He, along with other senior Leaders, would inspect the bikes and check riders' insurance and PPE to make sure everyone was "doing the right thing." After that, we would have some classes on motorcycle safety and maintenance and then there would be a prize given away. The final activity was a group ride to a local lake, where he released us for the weekend.

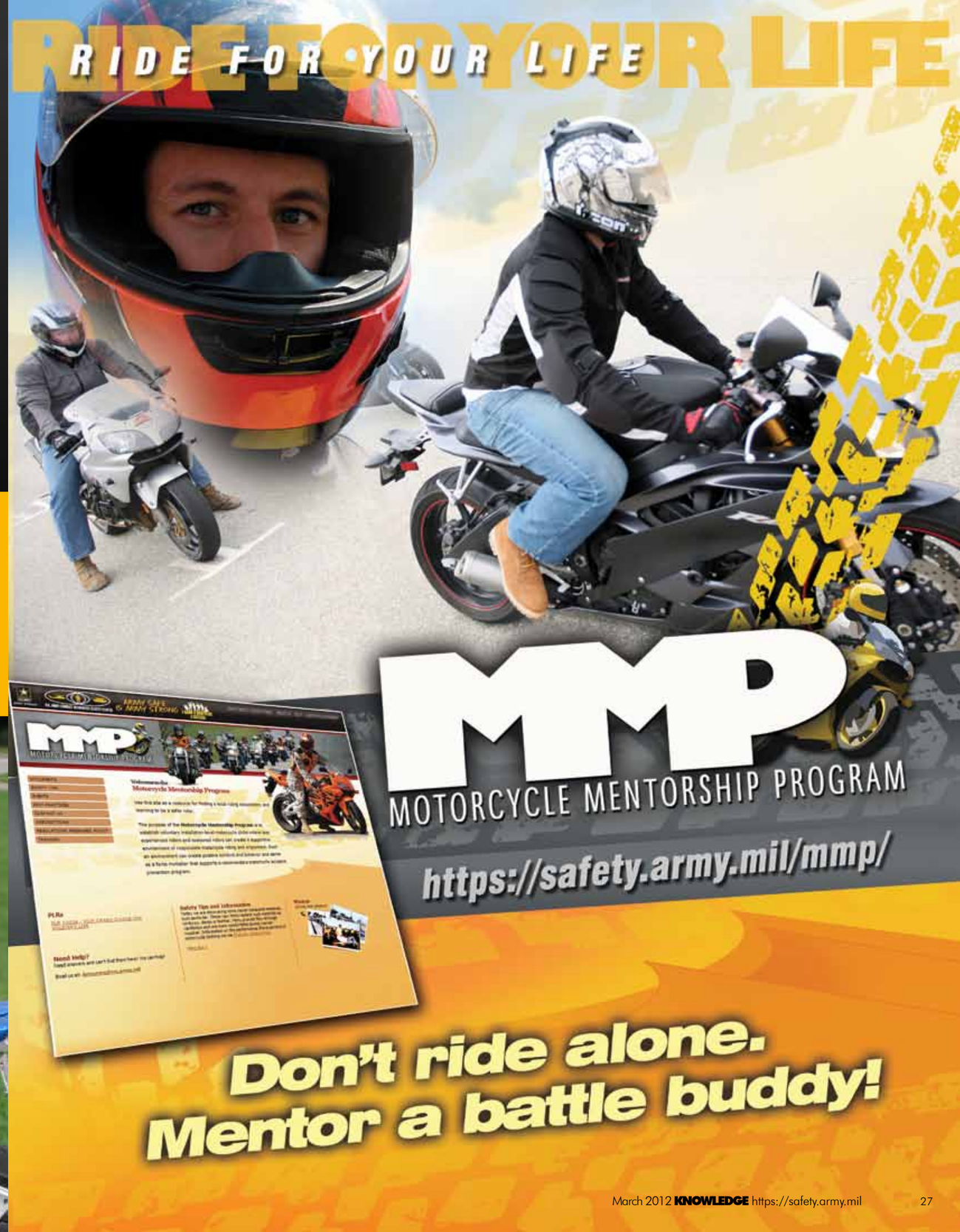
I have to admit I was shocked. This was the first time anyone higher than the first sergeant had showed an interest in the unit's riders. Rather than making threats, the battalion commander showed he had an interest in common with his Soldiers and used that as an opportunity to get to know them. He was willing to both do the right thing and show us what the right thing was. These meetings became a monthly ritual that made riding rewarding rather than punishing Soldiers who rode. Before long, our monthly motorcycle days caught on like a wildfire throughout the brigade and several local bike shops jumped in as sponsors.

After a while, I noticed guys out in the parking lot saying things like, "Take a class before you get on your bike" or "Take it easy, ride your ride." Something fundamental had changed in their mindset. Motorcycle training days were seen as a sign of respect rather than punishment, and no one wanted to mess that up.

Although the post sign rarely made it past the 30-day mark without a fatality, those fatalities no longer represented riders in our brigade. Our Leader had kept his word. He made sure we were Soldiers — not statistics.

GOT MENTORSHIP?

Units around the Army are finding the Motorcycle Mentorship Program a useful tool for keeping Soldiers from becoming statistics. For more information on the MMP, check out https://safety.army.mil/MMP/.



NO LIP SERVICE

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Some crewmembers aren't taking the time to brief their passengers in accordance with their aircraft checklist. And some are only giving the passenger brief "lip service," or just going through the motions. Are these fair statements? Before you shoot the messenger, first look at how your unit is doing business. Are you taking the time to complete the required brief? Do you cut the brief short because of time? You've flown this VIP before, so one brief is enough, right? Wrong! What if the aide to the VIP says he is too busy to be bothered? What other excuses have you accepted or made in the past?

Ask your unit to conduct a random survey of passengers flown to see what kind of briefing they received. You may be surprised at what they tell you. Aircraft crewmembers know what to do when they get into their aircraft — where to step and not step, what to touch and not touch, when and how to buckle and unbuckle their restraint system, the location of fire extinguishers and survival kits and how to use them. However, it's just as critical that passengers, whether they are civilian or military, also know these things.

Remember, passengers aren't as familiar with the routine or emergency procedures that are second nature to aircrews. Don't ever assume they know about your aircraft simply because they are wearing a uniform and maybe even aviator wings. Your passengers don't know what they don't know. This could lead to serious accidents and injury.

Every pilot in command, as well as each crewmember, is required to ensure all passengers, military and civilian alike, are briefed on emergency actions prior to flight in accordance with their aircraft operator's manual. Here are some general suggestions that can apply to just about any aircraft passenger briefing.

- **Flight data.** Brief passengers on the intended route, altitude, time en route and weather.
- **Approaching and departing the aircraft.** Explain the proper direction to approach and depart the aircraft to avoid rotor blades, propellers and exhaust heat. Also, go over proper entry and exit procedures.
- **Seating.** When passengers occupy seats in the area of aircraft controls, caution them against unintentional or inadvertent interference with the controls, both during flight and when entering or leaving the aircraft.
- **Smoking.** Remind passengers that smoking is prohibited on board or within 50 feet of any aircraft.
- **Emergency entrances, exits and equipment.** Identify their location and demonstrate operation of jettisonable doors and windows, escape hatches, cabin doors, cargo ramps, cutout/kickout panels, first aid kits, troop alarms, jump lights and emergency escape equipment (axes, etc.).
- **Safety belts and shoulder harnesses.** Make sure passengers are familiar with the use and operation of this equipment and the requirement to use it.
- **Helmets.** If passengers are provided helmets, remind them to keep the chinstrap secured and the nape strap tight.
- **Overwater flight**. If the flight will be conducted over water, familiarize passengers with flotation equipment, the location and general use of all life-support equipment and methods of emergency egress in water.
- **Survival equipment.** Point out its location and explain general use of survival equipment such as flares, rafts, radios, etc.
- **Fire extinguishers.** Point out their location and explain how to use fire extinguishers, with special emphasis on occupant safety (people first, equipment last).
- **Clothing.** Brief passengers to roll down shirtsleeves during the entire flight. Be sure that all passengers without helmets wear earplugs or other hearing protection.
- **Protective masks.** If carrying toxic chemicals onto the aircraft, make sure all passengers have protective masks readily available.
- **Refueling.** Ensure passengers offload and remain at least 50 feet from the aircraft during refueling.
- **Equipment security.** Caution passengers not to throw anything from the aircraft at any time, in flight or on the ground. In addition, remind them to secure all equipment inside the aircraft to prevent it from becoming a missile in the cabin during a crash, and outside the aircraft to prevent it from being sucked into rotor systems, engine intakes or blown into people or equipment.
- **Emergency landing position.** Explain and demonstrate proper body position: Bend forward at the waist with feet planted firmly on the floor. Rest chest on knees and hold the position by enfolding and locking arms around and behind thighs.
- **Off-loading.** Instruct passengers that under normal conditions they should wait until they receive a word or signal from a crewmember. In an emergency, they should offload and move away from the aircraft to a pre-briefed position. (During a fire, egress should be immediate; no fire, wait until the blades stop turning.)

There is no excuse for cutting short, amending or omitting the passenger brief; your operator's manual requires it. After an accident, it would be tragic to have someone be unable to free themselves from your aircraft because you didn't brief them on how to use the emergency exits. What if they didn't know how to get you out, use the fire extinguisher to fight a fire or use your survival radio to get help? Conduct proper passenger briefs each and every time! Just do it!

A Science Experiment GONE BAD

JAMES JACKSON
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My wife and I had always dreamed of the day we'd own a home with a white picket fence, two-car garage and backyard. When our dream became a reality, we were ecstatic and invited friends, neighbors and Family to our humble abode. As we settled into our new home, time flew by. I guess my wife and I both hit a plateau at the same time with work and getting into the routine of life. So it was a shock to us when we received a call from relatives wanting to come for a visit.

They wanted to see our house and stay over for a visit. We were happy they were coming to visit because we hadn't seen them in a long time. As we prepared for our company, we started to get the house ready. After I mowed the lawn and attended to other areas, my wife and I were sure our relatives would be impressed with the house and our handiwork. We agreed to call it a night and decided to finish the last bit of work left indoors early the next morning.

With sunrise, we began cleaning the common areas. We were feeling proud of ourselves until we got to the guest areas. The guest bedroom and bathroom had not been touched in more than three months! The areas were filthy. This was definitely not the impression we wanted to leave on anyone, especially our relatives.

In haste, we decided to attack the two rooms with every cleaning agent we had — toilet bowl cleaner, bleach, Comet, ammonia and more bleach. This area was going to be "Spic and Span" clean! Everything was going well when we got the call — our guests were less than an hour out and we'd just started cleaning their bathroom. At this point, I decided to throw a combination of cleaning solutions into the bathtub and then run some hot water in it. I stayed in the bathroom while my wife finished vacuuming the hallway. After about five minutes, I began experiencing a headache, and the back of my throat started to burn. On top of that, my eyes were now watering like a leaky faucet. When my wife opened the bathroom door and saw me, she suggested I get some fresh air.

By the time our guests arrived, I was still suffering from something (I wasn't sure what the heck was going on at this point), and they asked if I had a cold. I told them "no" and didn't think anything more of my condition until one of our guests came back from the bathroom hacking and coughing. Immediately I suggested we move outdoors to get some fresh air.

As we moved outside, they asked if we had used any chemicals with chlorine and ammonia in the bathroom recently. I looked at them as though they had asked me to explain quantum mechanics. They went on to explain that when you mix ammonia and chlorine (ingredients found in common household cleaning supplies), you get a gas previously used as a weapon in World War I! Both my wife and I were astonished and mortified we had created something so sinister. They also went on to say that every year individuals die from this toxic concoction. Once we'd uncovered the problem, we aired out the house and rinsed the tub and sink again. We then ended up having a great visit with our relatives.

To prevent a similar incident from happening in the future, we now take extra time and look at the ingredients of the cleaning agents we use. I strongly recommend you do the same. Trust me — you don't want to unknowingly create a chemical weapon in your own bathroom.

DID YOU KNOW?

According to the American Association of Poison Control Centers, http://www.aapcc.org, cleaning products are near the top of the list of the most common poisons for children and adults. Corrosive cleaners such as drain openers, oven cleaners, toilet bowl cleaner and rust removers are some of the more dangerous types of poisons found in homes.

When handling household and chemical products, the AAPCC offers the following tips to keep you and your loved ones safe:

- **Keep potential poisons in their original containers.**
- **Do not use food containers such as cups or bottles to store household and chemical products.**
- **Store food and household and chemical products in separate areas. Mistaking one for the other could cause a serious poisoning.**
- **Read and follow the directions and caution labels on household and chemical products before using them.**
- **Never mix household or chemical products together. Mixing chemicals could cause a poisonous gas.**
- **Turn on fans and open windows when using household and chemical products.**
- **When spraying household and chemical products, make sure the spray nozzle is directed away from your face and other people.**
- **Wear protective clothing, including long-sleeved shirts, long pants, socks, shoes and gloves, when spraying pesticides and other chemicals. Pesticides can be absorbed through the skin and can be extremely poisonous.**
- **Stay away from areas that have recently been sprayed.**
- **Don't sniff chemical containers, especially if you don't know what is inside.**
- **Discard old or outdated household and chemical products. First aid instructions on product containers may be incorrect or outdated.**
- **Keep the poison center phone number (1-800-222-1222) on or near home phones and programmed into cellphones in case exposure occurs (this number can be called from anywhere in the United States).**

PORK RIND PANDEMONIUM

JT COLEMAN
Strategic Communication Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Want to munch on something a little crunchy while you're going down the road? Better take care that you don't bite off more than you can chew.

It was mid-July, and we had just dropped off my grandsons with their dad in Montgomery, Ala., after a weekend visit. After driving for a while, I became thirsty and decided to get a kidney-splitting 32-ounce soda and something to munch on during the rest of the ride home. While cheddar-flavored popcorn is my favorite bagged snack, it tends to leave a powdery residue on your fingers that can mess up any car's interior. Not wanting to dirty up my Armada, I opted for my second-favorite bagged snack, fried pork rinds.

After paying the cashier at the convenience store, I walked out to my car and prepared my driving area for the proper snack and drink placement. If ever a SUV was designed for "dashboard dining," the Armada has to be it. Just behind the gearshift is a 4- by 7-inch open compartment that makes a great "bag-o-snacks" holder. And the Armada's large drink holders could easily accommodate those oversized sodas. With snacks and drink in place, I was ready to continue the journey home.

As I left the station and started driving on one of many backwoods country roads Alabama is famous for, I dug into my bag of rinds. My mother was sitting in the backseat, enjoying the beautiful, rolling meadows through her window. My wife was playing an electronic card game of solitaire while I was selectively choosing which rind was best for me to eat. You see, I'm not really keen on the hard, crunchy skins that can crack a tooth. I prefer the light, fluffy rinds that almost dissolve on your tongue.

We'd gone maybe five miles down the road when I selected what I thought was the perfect pigskin. It wasn't too large to eat in one bite and it possessed that light, fluffy texture I enjoyed. As I tossed it in my mouth and bit down, a piece broke off and stuck in the back of my throat, causing me to cough and gag. I immediately reached for my drink to try and wash it down. That didn't work, and I was soon coughing my guts out trying to dislodge the rind. As my coughing got worse, my two "co-drivers" told me to pull over. My gagging was starting to concern them since we were doing 55 mph on a two-lane country road surrounded by ditches on both sides.

Once I finally found an area where I could safely pull off the road, I grabbed my drink and guzzled it in hopes of washing down the offending rind. That didn't work, so I got out of the car, went "bottoms-up" with the soda and "firehosed" the rind until the stuck snack finally gave way. Getting a couple of deep breaths followed by a huge sigh of relief, I returned to the driver's seat to listen to the sage wisdom of my two co-drivers. Both suggested I leave the pork rinds alone for the rest of the trip to avoid any repeat performances. Noting their suggestion (and possibility of continuous nagging), I folded the bag and assured them I was done eating and driving.

Driving down the road, I began wondering about what would have happened had I been choking so badly that I needed someone to do the Heimlich maneuver on me. Could I have given the internationally recognized "I'm choking" signal (both hands around my throat), exited the roadway safely and gotten help? What if I had been by myself?

At that point, I decided to never eat and drive again. Simply put, eating is just another form of distracted driving just like texting or shaving. Fortunately, I learned a good lesson with relatively minimal consequences. Looking back, my pork rind pandemonium could have proven deadly for my family and others on the road. And no matter how hungry I am, that's something I don't have an appetite for!

Warm Weather Hazards Approaching

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As colder temperatures fade away for another year, warm weather flying hazards should now be on your checklist of things to worry about. Warmer weather hosts a variety of severe and even violent conditions that can develop rapidly: thunderstorms, hurricanes, tornadoes and their companions — turbulence, wind shear, hail and, most significantly, lightning, the leading hazard associated with thunderstorms.

Before you encounter any of these severe weather phenomena that summer promises, prepare yourself. Brush up on known hazards and how to avoid or minimize the risks.

The weather has no respect for experience or ratings, nor will it manifest sympathy for the inexperienced and unqualified. If you lack training, qualification or adequate preparation, be prepared to pay the high price severe weather will demand. While the weather may have no respect for your abilities, or the lack thereof, you can respect the hazards associated with severe weather conditions and learn to assess and manage risks accordingly. Never accept a weather risk if there is a control option that would lower that risk.

One of the best protections against inadvertently encountering severe weather in flight is being forewarned of its possible existence or development. A thorough and complete preflight weather briefing is critical. Some operational weather squadrons now have an instrument refresher course online so pilots can brush up on seasonal hazards. However, the pilot's responsibility for avoiding severe weather does not end with the preflight briefing. It continues with constant in-flight weather observations and careful attention to radio weather advisories along the route. Stay informed, stay alert. Forewarned, you are less likely to run into trouble.

Learn to respect nature's often unpredictable and awesome power. Don't let weather hazards spoil your warm-weather flying. Mission First, Safety Always!

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HOW TO USE YOUR SAFETY OFFICER

COL. CHARLES SCHULZE
Maryland Army National Guard
Baltimore, Md.

I was the incoming battalion commander and it had been a wonderful couple of days familiarizing myself with what appeared to be a great unit. After reviewing the brigade commander's Officer Evaluation Report support form in preparation for my initial counseling, I noted the usual comments about meeting or exceeding standards for the commander's unit status report, individual weapons qualification, Army physical fitness test and the unit's successful external evaluation. However, what I hadn't seen before was an objective to "implement and maintain an effective unit safety program supporting unit readiness and combat capability."

During my counseling session with the brigade commander, Col. Green, she asked how I planned to implement and maintain an effective unit safety program. I confidently replied that my safety officer would lead that effort. Not satisfied with my response, she asked me if I knew how to use my safety officer. I said that I would simply ask the safety officer to prepare seasonal and holiday safety messages for me, make appropriate comments at command/staff meetings, provide last-minute safety tips and keep me abreast of safety-related issues.

That's when Green offered some guidance and mentorship. I learned that my unit had experienced a rash of accidents both on and off duty during the last seven months. One in particular involved a 21-year-old Soldier killed on a motorcycle. The Soldier ran a stop sign and was hit by a car. Another accident involved a Soldier that sustained a serious back injury while lifting a heavy pelican case. That Soldier spent more than 3 ½ months on convalescent leave and is now pending possible medical retirement.

Green made it clear that unit readiness and combat capability depended on the use of my safety officer and their ability to implement and maintain an effective unit safety program. She said safety was a command team responsibility and informed me that I was required to attend her safety council meetings and that I needed to link up with her safety officer.

I met with the brigade safety officer and he gave me a lot of valuable information on how to breathe some life back into my safety program. He recommended that my additional duty safety officer serve as a member of my personal staff. He also said that I should appropriately empower the ADSO, allowing him or her to monitor key command

support programs; observe and participate in unit operations; participate in the military decision making process; manage the unit safety program; document and track hazards, action officers and suspense dates; and handle accident reporting and trend analysis.

Armed with ideas and guidance, I met with my command team several times and we developed a plan on how to set up and effectively manage a unit safety program. I appointed a new ADSO, Capt. Johnson, and assistant ADSO, Sgt. 1st Class Stevenson. I briefed them on my expectations and, heeding the brigade safety officer's advice, I let them know they'd serve on my personal staff, reporting directly to me.

Four months later, my unit experienced one Class C, two Class D accidents and some close-call events that could have easily resulted in a serious injury or fatality. This definitely wasn't the precedence on safety I wanted to set.

Soon after, the ADSO and assistant ADSO returned from the Ground Safety Officer course with fresh ideas. Before my next safety council meeting, Johnson and Stevenson suggested we administer a safety survey. The survey they explained, along with analysis of unit accident trends, would help validate areas where the unit was performing well and expose the areas that needed improvement.

After the unit completed the survey, my executive officer set a date and time for the safety council meeting that happened to conflict with my schedule. I directed the XO to chair the meeting. That's when Johnson met with me and respectfully requested that I chair the meeting. Then I thought about the brigade commander's "implement and maintain an effective unit safety program" performance objective. I chaired the meeting.

My unit was three weeks out from conducting a field training exercise that included live-fire lanes training. Following the FTX and live-fire lanes rehearsal, Johnson and Stevenson emailed me two DA Form 7566 Composite Risk Management worksheets — one for the FTX and the other for live-fire lanes training — for my review and signature.

The FTX and live-fire lanes training went off well with no accidents, injuries or damaged equipment. During the after-action review, I was surprised to see both CRM worksheets included on the AAR agenda. Clearly, Johnson and Stevenson were onto something, and I attribute the success of the mission to them.

I firmly believe that implementing and maintaining an effective unit safety program and effective use of my safety officer is the key to a successful command. However, this will require continuous effort by me, my command team, Leaders at all levels, Soldiers and even their Families to maintain readiness and combat capability. At my safety council meetings, the performance metrics reflect an accident rate reduction with zero off-duty privately owned vehicle accidents. My last CUSR submission also showed considerable improvement. Morale seems greatly improved and, most importantly, we haven't lost anybody to accidents.

Editor's note: The names of the Soldiers in this article are fictitious.

The Goal is to Arrive SAFELY

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You wouldn't get behind the wheel with half your brain cells "anesthetized" by alcohol. Then why would you drive impaired by fatigue? Maybe fatigue doesn't carry the stigma that alcohol has, but either one will plant you in a median, guardrail or grave. Accidents don't discriminate when it comes to victims; they just look for easy targets.

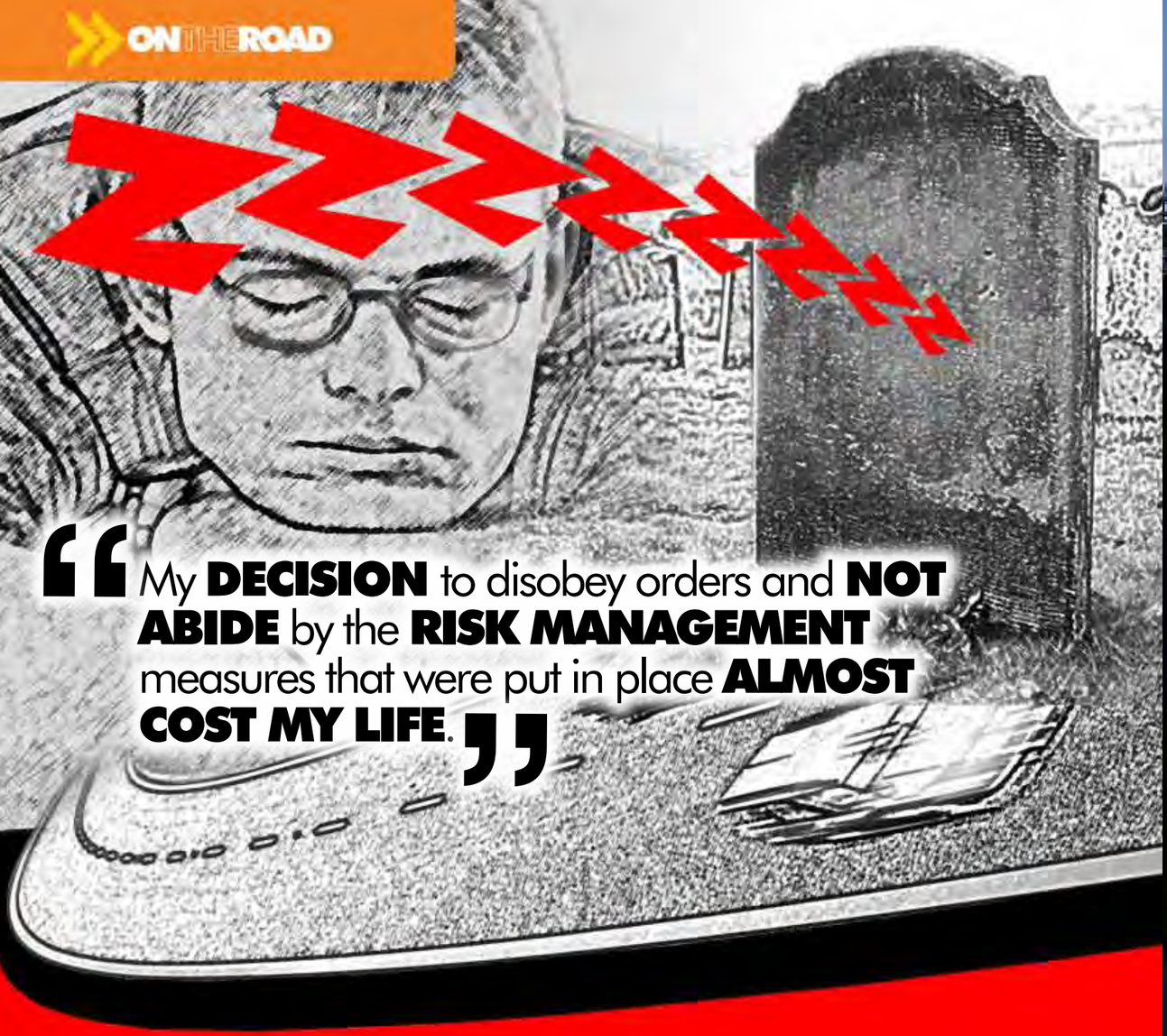
I was headed home from a 15-month-long tour in Iraq when I boarded a plane in Stuttgart, Germany. I sat impatiently on the plane, my mind filled with thoughts of seeing my Family and friends once again. The trip from Germany was long, but it passed quickly as I thought about home. In all that excitement, not once did I imagine what was in store when we landed stateside.

Soon after the plane landed, we were marched into the gymnasium for our return-home ceremony at Fort Stewart, Ga. The ceremony felt like it lasted for hours as I waited to be released to join my Family. My first child was born during my deployment and this would be my first opportunity to see her since my brief rest and recuperation leave. Everything was going the way I had imagined — that is until we were pulled away from our Families for yet another formation.

Our company commander gathered the unit and began giving the restrictions for the 48-hour pass we were each afforded. Among the restrictions, we were not to drink, drive or go outside of a 250-mile radius from Fort Stewart. I felt a little uneasy about those restrictions because my Family had to return to South Carolina. I wanted to spend more time than just the few hours they were down visiting. I told my mother I was thinking about riding back with my Family and driving back to Fort Stewart the following Monday for the next scheduled formation. I knew that was against the orders that were just put out; however, as a young Soldier, all I was concerned about was spending time with my Family. I didn't feel that I was that tired. I felt fine and couldn't understand why everyone was harping on jet lag. After all, I slept the majority of the plane ride. I thought to myself, "How much sleep do they want me to have before driving?"

After being released from formation, my Family and I got on the road and headed north to South Carolina. I was so elated to have my daughter in my arms and to be headed somewhere not surrounded by Soldiers, sand and porta-potties. That night would go by very fast. Between catching up with my mother and waking up in the middle of the night to feed my daughter, I got very little sleep. However, I felt great and not the least bit tired.

Finally, it came time for me to return to Fort Stewart. It would be a 4 ½-hour drive. What I wasn't expecting was the effect of not driving a privately owned vehicle for more than a year would have on me. I had been driving for about 3 ½ hours when my eyes began getting very heavy. I remember them closing constantly, but I forced myself to stay awake. I told myself I would pull over and stretch at the rest area just across the state



"My **DECISION** to disobey orders and **NOT ABIDE** by the **RISK MANAGEMENT** measures that were put in place **ALMOST COST MY LIFE**."

line — but my plan didn't work.

Before I realized it, I fell asleep and veered into the median. When I opened my eyes, I was startled to see I was halfway into the median headed toward a construction sign. I panicked and overcorrected, causing my car to swerve and barely miss hitting the guardrail. By now, I was sliding out of control and heading toward a tree. I can remember thinking I needed to brace for the impact. Fortunately, my car stopped just short of the tree. I remember just sitting there, my hands clenching the steering wheel, my eyes wide open and thinking I was the luckiest man alive. After I calmed down, I put the car in reverse, got back on the highway and stopped at the first hotel, where I slept for the night.

My decision to disobey orders and not abide by the risk management measures that were put in place almost cost my life. A price like that is far too much to pay for not having the patience to wait until the travel restrictions were over to see my Family. I realized then driving while fatigued is one of the most dangerous things a person could ever do.

From that moment forward I have strictly abided by rest cycles, along with other driving safety measures I have been taught. I strongly encourage anyone who reads this article to understand your life is worth more than the brief time you'll gain by not pulling over or getting the proper rest before traveling. Make sure to get adequate sleep before you drive. Remember, the goal is to arrive safely.

TRAVEL RISK TRiPS PLANNING SYSTEM

https://safety.army.mil

TRiPS has a feature that helps subordinates and their supervisors more effectively discuss travel plans. On the "Review" page while filling out an assessment, there is a comment section for Soldiers and Army Civilians to share information about their trip with their supervisors. Feedback can also be provided by supervisors when they approve or disapprove the assessment. This two-way communication can capture details and guidance to ensure the trip is a safe one.

ARMY SAFE IS ARMY STRONG

BAND OF BROTHERS & SISTERS

LOST

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, email safe.knowledge@conus.army.mil.

AVIATION

TH-67A

CLASS C

- The aircraft experienced an engine-out as the crew demonstrated a simulated engine failure. The aircraft touched down hard, severing the tailboom.

UH-60L

CLASS C

- The aircraft's horizontal stabilator was damaged upon landing during a "quick stop" maneuver in conjunction with landing zone operations.

AH-64D

CLASS C

- Postflight inspection revealed that the No. 2 engine cowling was not secured and sustained in-flight damage.

CH-47D

CLASS B

- The aircraft experienced an overtorque condition (115 percent on the No. 1 engine; 120 percent on No. 2 engine) during approach to a nonstandard helicopter landing zone under night vision goggles. The aircraft returned to base without further incident. Postflight inspection revealed a need to replace the transmission.

- The aircraft landed hard to a nonstandard HLZ, sustaining damage to the left landing gear assembly, airframe and tailgate.

CLASS C

- An aircraft passenger injured his left ring finger when he caught it while attempting to steady himself by grasping the driveshaft frame. One of the bolts connecting the two driveshafts struck his finger.

UH-60L

CLASS A

- The aircraft tail rotor section struck a concrete barrier during postflight ground taxi for parking. The tail rotor assembly was severed.

C-12D

CLASS C

- The crew experienced a bird strike while conducting traffic pattern training at a municipal airport.

UAS

PUMA

CLASS C

- The air vehicle operator lost link with the system for unknown reasons while in flight. The unmanned aircraft was visually tracked to the point of ground descent, but was unable to be located.

RQ-7B

CLASS B

- The UA experienced an engine malfunction during flight. The crew deployed the recovery chute, and the system landed with damage.

LOSSES AVIATION — FISCAL 2012 Class A/Fatalities as of Feb. 5, 2012

ATTACK	1/0
RECON	1/4
UTILITY	3/1
CARGO	2/0
TRAINING	0/0
FIXED-WING	0/0
UAS	1/0
TOTAL	8/5

CLASS C

- The crew experienced engine RPM fluctuations (2160-4500) during final approach to land. The UA came to rest beyond the forward operating base.

GROUND

ACV

CLASS A

- A civilian prison guard was killed when the van she was riding in collided with a Mine Resistant Ambush Protected vehicle. None of the Soldiers in the MRAP were injured; however, the eight other van occupants suffered injuries.

- A Soldier was killed and nine others injured when their Stryker struck a boulder and overturned during convoy operations.

LOSSES GROUND — FISCAL 2012 Class A/Fatalities as of Feb. 5, 2012

AMV	4/1
ACV	3/1
PERSONNEL INJURY (includes weapons-handling accidents)	7/7
FIRE/ EXPLOSIVE	1/0
PROPERTY DAMAGE	0/0
TOTAL	15/9

AMV

CLASS A

- A civilian died when her vehicle collided with a HMMWV on a four-lane highway. Two Soldiers in the HMMWV were treated for minor injuries.

DRIVING

POV

- A Soldier was killed when his vehicle crossed the centerline and collided head-on with a tractor-trailer.

- A Soldier died when he drifted across the centerline and collided with an approaching vehicle.

- A Soldier going the wrong way on an interstate struck another vehicle head-on and killed the Soldier driving that vehicle.

- A Soldier died when he lost control of his speeding vehicle and crashed. The vehicle was consumed by flames.

CLASS C

- A Soldier broke his back when his vehicle struck an embankment after he braked to avoid another motorist on an icy road and lost control.

POM

CLASS A

- A Soldier was killed when she lost control of her motorcycle in a curve.

- A Soldier died when he lost control of a borrowed motorcycle and struck a street sign. Although the Soldier was wearing a helmet, he was neither trained nor licensed to ride a motorcycle.

CLASS B

- A Soldier was riding through an intersection when he collided with a van that ran a stop sign. The Soldier was wearing his complete personal protective equipment, but was thrown from his bike and required the amputation of one testicle as the result of his injuries.

LOSSES POV/POM — FISCAL 2012 Class A/Fatalities as of Feb. 5, 2012

CAR	13/12
SUV/JEEP	6/6
TRUCK	2/2
MOTORCYCLE	10/9
PEDESTRIAN	1/1
OTHER* (*Includes vans and ATVs)	0/0
TOTAL	32/30

Fiscal Year 2011: 24 — Three Year Average: 27

CLASS C

- A Soldier broke his wrist when he was forced to lay down his motorcycle to avoid a vehicle that had stopped abruptly in front of him.

- A Soldier was passing another vehicle when he collided with a deer that ran into his path.

- A Soldier who was an experienced dirt bike rider crashed during a jump and separated his shoulder.

TAKE THE CHALLENGE, LEARN THE LESSON.

FIREARMS safety techniques

GIVE IT A SHOT!

Firearms Safety Techniques, an interactive site, is available for Soldiers, Family members and Civilians to learn about off-duty safe firearms handling. Visit the site for more useful firearms safety resources.

Visit https://safety.army.mil/firearm-safety and get on target today

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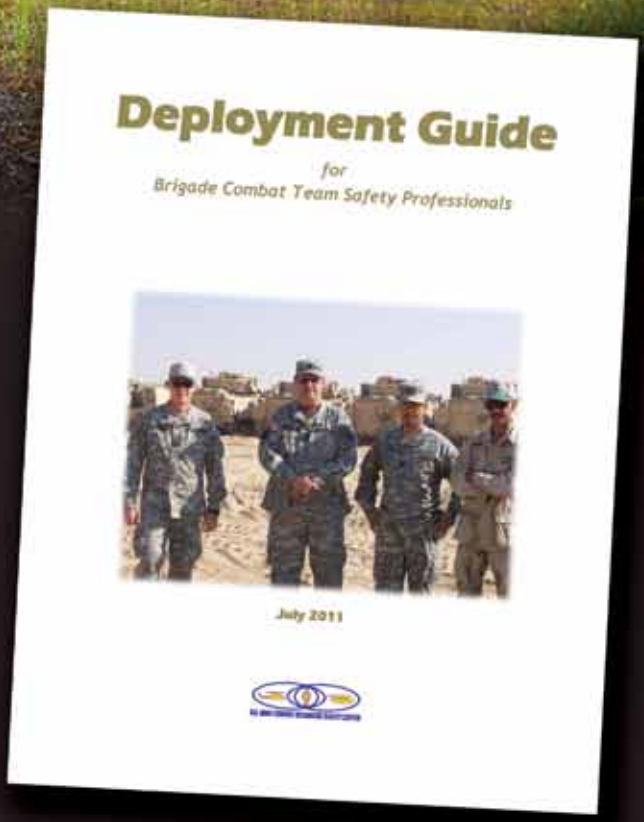
You don't have to reinvent the wheel.

When preparing to go downrange, check out the Deployment Guide for Brigade Combat Team Safety Professionals for valuable lessons learned, resources, tools and other useful information. While developed for BCT safety professionals, anybody can use this deployment guide. Visit https://safety.army.mil/deploymentguide to download or order a DVD copy of the guide.



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ARMY SAFE IS ARMY STRONG

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RECOVERY OPERATIONS: TOWING THE LINE

KNOWLEDGE

VOL 6 APRIL 2012

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

SETTING CONDITIONS FOR SUCCESS

- TEXTING AND DRIVING
- EYE PROTECTION
- FIGHTER MANAGEMENT

U.S. ARMY
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SCAN HERE FOR KNOWLEDGE ONLINE

Be an accountable friend

Be **accountable**. You are accountable for your actions and those of your passengers. Whether you are the driver or a passenger in the vehicle, ensure everyone wears a seat belt.

Be **accountable** *and enforce the rules!*

Learn more at https://safety.army.mil

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KNOWLEDGE

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

LEADERS SOLDIERS CIVILIANS FAMILIES

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Mission statement: The United States Army Combat Readiness/Safety Center (USACR/Safety Center) supports our Army by collecting, analyzing and communicating actionable information to assist Leaders, Soldiers, Families and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please email comments to **safe.knowledge@conus.army.mil**.

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> "Remaining **ENGAGED** with both the **SOLDIER** and his or her **PEERS** is the **SINGLE-MOST IMPORTANT** thing any Leader can do."

MITIGATING RISK WITH AWARENESS

It's hard to believe another winter has come and gone, yet spring is on our doorstep and Soldiers and Families across our Army are getting outdoors for some much needed fresh air. Whether it's getting the motorcycle ready for riding season, taking the cover off the boat or planning a vacation far from home, spring and summer offer abundant opportunities for rest and relaxation. That fun can come with a price, however, and Leaders and Soldiers should stay especially aware of the risks inherent to the change of seasons.

During the past three fiscal years, the spring and summer months have continued to be our Army's high-water mark for off-duty fatalities. In fact, closeout numbers from the last six months of fiscal 2011 were nearly 20 percent higher than those from fiscal 2009, a disturbing trend that Leaders and Soldiers at all levels should make every attempt to counter. But mitigating the risk requires awareness, so I'd like to talk about the issues we saw most frequently last year.

Not surprisingly, the majority of our Army's accidental fatalities were due to privately owned vehicle accidents, with a nearly even split between sedans/other POVs and motorcycles — 32 versus 29, respectively. Taken together, approximately 80 percent of all accidental fatalities from the beginning of April to the end of September occurred on the road, and a great many of that number involved indiscipline. Speeding and failure to wear seat belts or personal protective equipment were the top indiscipline-related factors, and several accidents reportedly involved speeds of 90 mph or greater.

These losses were not simply tragic; they were also pointless. No Soldier ever has a good excuse to not wear a seat belt or travel at speeds approaching triple digits. Likewise, no Leader has a valid reason for not knowing his or her Soldiers are behaving in such a reckless manner. Someone always knows when a Soldier is taking unnecessary risks; Leaders must get to know their Soldiers and establish a relationship where they feel comfortable talking about their high-risk peers. Safety issues don't belong underground — they should be out in the open and up for discussion, with input on both problems and solutions welcomed from Soldiers at all levels.

The next question is what do you do with high-risk Soldiers once they're identified? Remaining engaged with both the Soldier and his or her peers is the single-most important thing any Leader can do. Behavior change takes time and patience, and Leaders should involve peers in the process to show the at-risk Soldier he or she is an important and valued member of the team. From there, Leaders should take advantage of remedial driver training programs like Roadrageous, now an official part of the Army Traffic Safety Training Program. Independent studies have shown this training to be effective in reducing collisions by as much as 74 percent, so it's a valuable opportunity for both high-risk Soldiers and anyone wanting to learn defensive driving techniques. Leaders interested in scheduling Roadrageous training should contact their garrison safety office.

We should also remember last spring and summer's fatalities weren't limited to POVs and motorcycles; eight Soldiers drowned between April and September. Activities on the water can be just as risky as driving or riding, and are made even more so when combined with alcohol use or when Soldiers can't swim or don't know how to properly use a watercraft. Engage with your Soldiers, ask them about their plans and ensure they have the proper training before embarking on any water-related activity. Family, Morale and Recreation facilities offer many fantastic programs geared toward water safety, so ensure your Soldiers take advantage of these close and readily available training opportunities. And like driving sober, ensure your Soldiers understand the risks of mixing alcohol and water activities.

By working together and staying engaged, we can keep accidental fatalities from rising with the temperature these next few months. Stay aware and stay engaged, and most of all, ensure your Soldiers play it safe this spring and summer!

Army Safe is Army Strong!

WILLIAM T. WOLF
Brigadier General, USA
Director of Army Safety

R U @ Risk?

SGT. EBONY DAVIS
1-2 Attack Reconnaissance Battalion
Fort Carson, Colo.

Our son was just a 23-year-old U.S. Marine when he died March 15, 2009, because he was texting while driving. My cellphone rang at 9:22 p.m., and I'll never forget that call.

Our son 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 (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 three years since that terrible evening, but the ache never leaves your heart — not when it was your son.

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). In recent years, a severe increase in motor vehicle accidents and fatalities has been caused by driving while texting.

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:

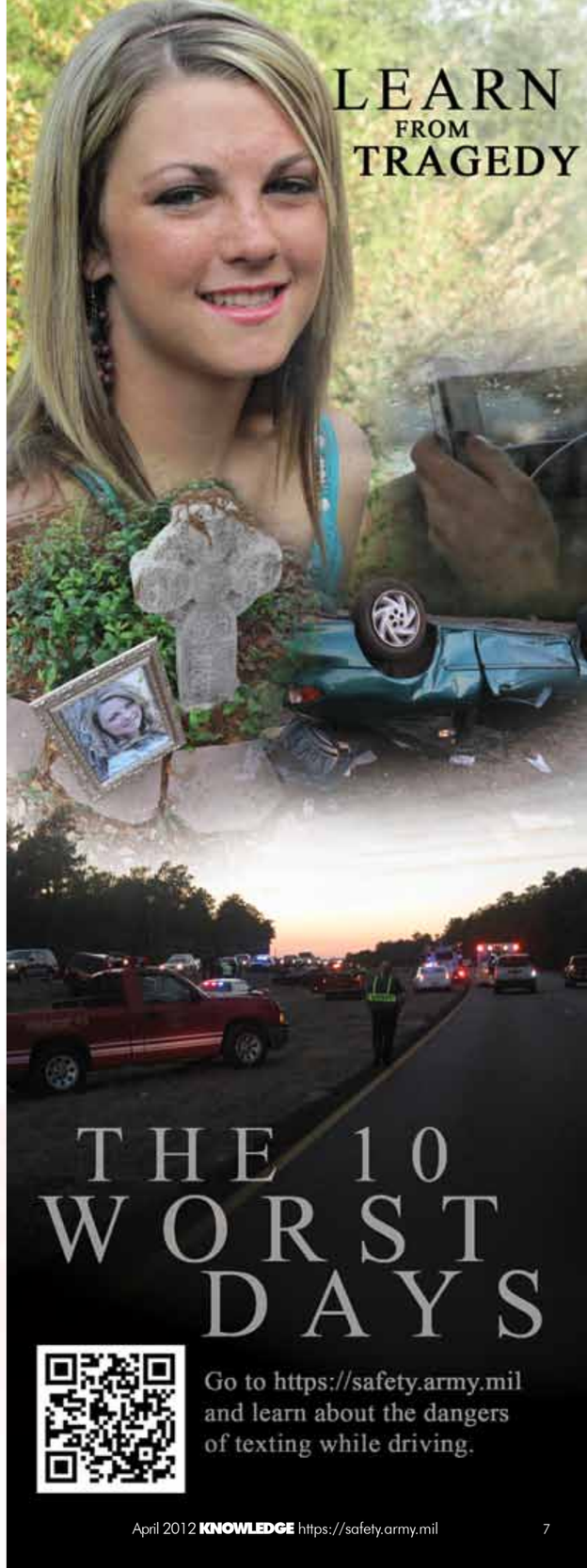
- Texting
- Using a cellphone or smartphone
- Eating and drinking
- Talking to passengers
- Grooming
- Reading, including maps
- Using a navigation system
- Watching a video
- Adjusting a radio, CD player or MP3 player

But, because text messaging requires visual, manual and cognitive attention from the driver, it is by far the most alarming distraction.

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 paying proper attention behind the wheel. The dangers caused by distracted driving have led to new laws being enacted to protect motorists. Thirty-five states, the District of Columbia and Guam ban text messaging for all drivers. Twelve of these laws were enacted in 2010 alone. Nine states, the District of Columbia and the Virgin Islands prohibit all drivers from using handheld cellphones while driving.

The push for stricter anti-distracted driving laws is a key topic for parents, lobbying groups, physicians and even companies that produce cellphones. That's not too difficult to understand when you consider the statistics collected during 2009 by NHTSA on this problem. For example, distracted driving was a reported factor 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 member 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.



Preserve Your Sight to Fight

TRI-SERVICE VISION CONSERVATION AND READINESS PROGRAM STAFF
U.S. Army Public Health Command
Aberdeen Proving Ground, Md.

DID YOU KNOW?

The U.S. Army Public Health Command offers postcard-sized Authorized Protective Eyewear List reference cards and other information regarding eye safety. Visit https://usaphcapps.amedd.army.mil/hioshoppingcart/ to see all products offered.

It's spring — the birds are chirping and flowers blooming. Everywhere you look, people are out exercising, playing sports and, unfortunately, getting injured. April has been designated as Sports Eye Safety Month to remind us to use our eye protection whenever the potential for an eye injury exists — and not just during the duty day. That includes participating in sports and doing other activities around the home.

Everyone has a story about the misjudged fly ball or the finger in the eye during a basketball game. The stories go on and on and usually start with someone doing something stupid. This particular story begins there as well.

One day, upon arriving at the racquetball court, I realized I had forgotten my eye protection. The person I was playing was not that good and I had never been hit in the eye before, so I decided to play anyway. Shortly thereafter, I hit a lob and waited for the return, which seemed to take too long. Sure enough, as I turned around, the ball hit me square in the eye! I was, indeed, stupid.

The good news is I wasn't hit very hard. I'm one of those fortunate people who get to end their story with, "I was lucky." A racquetball to the eye can easily cause permanent damage, but I only had a sore eye for a few days. I also wised up and stopped playing immediately after I was hit.

While combat soldiering has currently replaced sports as the second-leading cause of eye injuries among Soldiers, only behind other types of occupational injuries, the impact from sports activities is still significant. The average eye injury results in 5.8 days lost from duty at an average cost of $16,540, according to the U.S. Army Public Health Command. In the U.S., more than 13 percent of eye injuries are sports related, with more than 40,000 occurring each year. Basketball, baseball, softball and racket sports are the leading causes of sports-related eye injuries. If you think about it, that means emergency rooms in this country treat a sports-related eye injury every 13 minutes. These injuries cost $175 to $200 million a year, according to the American Optometric Association. Fortunately, 90 percent of these injuries are preventable if people wear protective eyewear. However, conventional eyeglasses do not meet the requirements of protective eyewear and are expensive to replace when broken. Why risk your fashion statement to a softball making a bad bounce? The ASTM International, formerly known as the American Society for Testing and Materials, is an organization that provides guidelines to govern the manufacture and ensure the highest quality of eye protection for specific sports and activities. Whenever possible, it's strongly recommended you use ASTM-approved eye protection that is designed for your particular sport.

The Army also has a comprehensive and very effective program for preventing battlefield injuries — your Military Combat Eye Protection. Your MCEP meets the standards for most sports and, in some areas, it surpasses them. They meet the military ballistic eyewear standards, which are more stringent than those to stop a flying elbow while going up for a rebound. In fact, the only sports they are not approved for are racket sports and paintball, which have their own protective eyewear requirements. In most cases, you choose the ones you wear because they are comfortable and reasonably stylish, so take them to the court or field. Don't leave them at work; use them at home and while playing whenever there is a potential risk and you do not have any ASTM-approved eyewear available.

You know the old saying — "You only get one set of eyes, so protect them"? Almost one-third of Soldiers returning from combat stated that their MCEPs had prevented them from getting an eye injury. Always remember that an eye injury occurring during a softball game can be just as devastating as one happening in theater. So, when in doubt, wear your protective eyewear in the field, at home and during sports. And don't forget your children. Eye injuries are the leading cause of blindness in children. For those age 11 to 14, most eye injuries occur while playing sports, with baseball the leading cause for those under 14 and basketball for those 15 to 24. If you teach them early, they will always remember.

Protective eyewear will not only keep you in the game, it will also keep your eyes ready for maintaining your quality of life. Do it for yourself and your Family. Remember — Preserve Your Sight to Fight!

Towing the Line

CHIEF WARRANT OFFICER 4 MARC ASSUMPCAO
Ground Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Conducting recovery operations on a disabled or mired vehicle may be an urgent mission to accomplish. However, Leaders and Soldiers should be cognizant that removing equipment or vehicles from the battlefield or training areas is an inherently dangerous task. During this type of operation, the application of composite risk management from the start of the planning process through the execution phase is critical to mission success.

Since their inception, Army vehicles and equipment have always needed maintenance support. If repairs are not possible, then a recovery or tow is usually required. Maintainers usually work to return inoperable or immobile vehicles and assets to users as soon as possible in an effort to sustain unit readiness. However, there is more to recovery and towing than just hitching up and taking off down the road.

Once connected to a piece of equipment or another vehicle, the recovery vehicle will require careful driving. The overall handling of the vehicle becomes different and operators and maintainers need to consider provisions for braking, accelerating and the terrain they may encounter while driving. Whether towing a Mine Resistant Ambush Protected vehicle, High Mobility Multipurpose Wheeled Vehicle or M1 Abrams tank, the weight of the towed vehicle becomes an important factor when it comes to braking. The heavier the towed vehicle, the greater the distance becomes for the operator to stop it safely.

It's imperative when Soldiers are retrieving damaged equipment or towing a disabled vehicle that Leaders ensure only trained personnel conduct these dangerous tasks. Soldiers authorized to perform recovery missions must be experienced on winching, lifting and towing and follow all guidelines set forth in Field Manual 4-30.31, Recovery and Battle Damage Assessment and Repair. Additionally, they should heed all safety warnings listed in the technical manuals for the equipment involved. Vehicle and equipment recovery operations are successful only when Soldiers follow the proper procedures and safety precautions.

Remember, maintaining awareness of the risks associated with recovery operations will help prevent injury to personnel and damage to equipment. As in most driving situations, exposure to certain hazards is inevitable; therefore, Soldiers need to complete a risk assessment before entering or attempting to recover or tow equipment. Soldiers assigned to perform these missions must be knowledgeable on the mechanical functions of the equipment they are recovering, including the use of specialized basic-issue items and recovery operations in a tactical environment.

Important safety points to remember when conducting recovery and towing operations of a disabled vehicle or piece of equipment include:

- Proper procedures listed in FM 4-30.31 must be followed and extreme caution used to prevent further damage to equipment and injury of personnel.

MRAP RECOVERY VEHICLE (MRV)

CHARACTERISTICS/SPECIFICATIONS

NOTE: INFORMATION TAKEN DIRECTLY FROM THE MAXXPRO MRAP RECOVERY VEHICLE (MRV) OPNET HANDOUT.

Diesel Engine
375 HP, MaxxForce 10, inline six-cylinder
Transmission
Allison 3200SP, five-speed, automatic
Transfer Case
Meritor two-speed
Base Chassis
7400
Wheel Base
262 in (665 cm)
Drive Line Configuration
6 x 6
Operational Length
409 in (1036 cm)
Operational Width
102 in (260 cm)
Operational Height
119 in (297 cm)
Minimum Ground Clearance
Center of Vehicle: 14 in (36 cm)
Differential: 10 in (25 cm)
Maximum Speed
(MRV W/O Towed Load)
65 mph (105 km/h) on primary hard paved roads.
Minimum Turning Diameter
94 ft (29 m) Right and Left Turns (Curb-to-Curb)
Maximum Side Slope
30%
Fuel Tank Capacity
57 Gallons
24-Volt Electrical and Cranking System
24-Volt alternator runs the vehicle while the engine operates, charging the four 12-volt batteries
Communication Systems
Compatible with current communication systems
Tow Points
Front
Air Brakes
Front Disk, Rear Drum equipped with ABS
Gauges and Indicators
For the Driver
Windows
Transparent Armor
Curb Weight
58,500 lb (26,535 kg)
Gross Vehicle Weight (GVW)
65,000 lb (29,484 kg)
Gross Vehicle Weight Rating (GVWR)
90,500 lb (41,050 kg)
Front Axle Weight Rating
(GAWR)
25,500 lb (11,567 kg)
Rear Axle Weight Rating (Tandem) (GAWR)
65,000 lb (29,484 kg)
Boom Winch Wire Rope
200 ft of 3/4-inch diameter, 6 x 37 Independent Wire Rope Core (IWRC)
Drag Winch Wire Rope
200 ft of 7/8-inch diameter, 6 x 26 Independent Wire Rope Core (IWRC)
Twin Boom Recovery Winches
Planetary, two-speed, 25,000 lb (11,340 kg) rating on first layer at low speed with fail safe brake. Maximum capacity on fifth layer at low speed is 13,200 lb (5,987 kg) with fail safe brake.
Drag Winch
Planetary, two-speed, with 50,000 lb (22,680 kg) rating on first layer, at low speed with fail safe brake. Maximum capacity on fifth layer at low speed is 27,200 lb (12,338 kg) with fail safe brake.
Underlift
35,000 lb (15,876 kg) underlift capacity at fully retracted. Underlift rated to approximately 17,000 lb (7,711kg) at fully retracted based upon GVW loading conditions and rear axle capacity (per SAE-J2512).
Main Boom
Hydraulically Actuated
Lifting Capacity
60,000 lb (27,216 kg) fully retracted with the boom raised to 30 degrees (per SAE-J2512)
Maximum Boom Length
The boom extension cylinder has stroke of 130 inches. When at zero boom angle, the boom has a 152 inch clear reach from the tailgate
Maximum Angle
60^0
Maximum Hook Height
354 inches [29.5 ft (9.0 m)] from girth of hook to ground. 395 inches [32.9 ft (10.0m)] from top of sheave to ground.
Boom Rotation
190^0 CW and CCW (from stowed position)
Armor Protection System
Mine Protection and Blast of the Hull.
Roof protection from overhead airburst and side protection against fragmentation and blast.
Floor
V-shaped belly deflects and absorbs blast-waves and shrapnel from IEDs and land mines.
Door Steps
Driver and Passenger-Side for Crew Members
Seats
Energy Absorbing Seats for Blast Protection
Life Support System (LSS)
Provides ventilation and climate control.
The HVAC / LSS regulates fresh and re-circulated air within the cabin and provides protection from outside extreme hot or cold temperatures.
Fire Suppression System (FSS)
Protects personnel from fire.
The cab is equipped with water-mist fire suppression to protect personnel from fire.
Only the cab and engine systems are automatic; all of the systems may be operated manually in the event of a malfunction.
Run Flat Tires
Runs at 30 mph (48 km/h) on hard surfaces after complete loss of air pressure in any two tires.

- Personnel must stand clear of wire rope under tension and be on the opposite angle of pull. The minimum safe distance is twice the length of the payed-out cable.
- Ensure a trained wheeled vehicle recovery specialist (additional skill identifier H8) is part of the recovery team.
- Do not exceed 25 mph on the highway and 15 mph off road when towing a single vehicle.
- Drivers need to understand that stopping distances increase greatly when the towed vehicle has malfunctioning brakes.
- If the brakes of the disabled vehicle are inoperable, do not flat tow the disabled vehicle. Call for wrecker support.
- When moving or towing a vehicle with inoperable brakes, using a wrecker, use extreme caution and reduce speed accordingly.
- Be aware of local terrain, weather and other conditions that may require speed reduction.
- Move towed loads at slow speed and avoid sharp turns. Proceed slowly in turns at approximately 5 to 10 mph to prevent skidding.
- A tow bar should be the first choice before using chains, ropes or cables.
- When using a tow bar, also connect a chain between the two vehicles for safety in case the bar breaks or becomes disconnected.
- Connect cables, chains or ropes, if used, to the pintle of the prime mover and to the lifting shackles of the towed vehicle.
- Do not put hands near the pintle hook when aligning it with the lunette eye hook.
- In cities or heavy traffic, tie the front lifting shackles of the towed vehicle tightly to the rear lifting shackles of the prime mover and connect the air brake lines.
- Do not move a recovery or towing vehicle without the assistance of ground guide. Ground guides must be visible to operators at all times.
- Never stand between two vehicles when the prime mover is backing up to the disabled vehicle; serious injury or death may result.
- Ensure that all personnel are clear of the vehicle before removing wheel chocks and before starting the towing.
- Personnel must not occupy the vehicle during recovery operations. Failure to comply may result in serious injury or death to personnel.
- All wheels remaining on the ground of the towed vehicle should be serviceable; this will increase system stability and reduce the risk of further damage.

DID YOU KNOW?

ALARACT Message 450-2011, MRAP Recovery Vehicle New Equipment Training (NET) RRAD and H8 Requirements for Wheeled Systems, clarifies pre-deployment requirements for H8 wheeled recovery operators and establishes requirements for deploying unit H8 certified recovery vehicle operators to complete MRV NET training at Red River Army Depot. Also, Field Manual 4-30.31, Recovery and Battle Damage Assessment and Repair, focuses on the components necessary for conducting equipment recovery and towing during wartime operations and during military operations other than war. To access this ALARACT message, Field Manual 4-30.31 and additional information related to equipment safety operations, check out the Driver's Training Toolbox at https://safety.army.mil/drivertrainingtoolbox/. Having a strong, solid foundation on the requirements for conducting vehicle and equipment recovery will enable personnel and equipment to be safely postured.

GOT QUESTIONS ON THE PMP?

STEVE KURTIAK
Driving Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

The recent change to the Army Traffic Safety Training Program went into effect in fiscal 2012 and has created many questions about the new Progressive Motorcycle Program. The U.S. Army Combat Readiness/Safety Center's Driving Directorate would like to provide answers to some of the most common questions we have received and explain the reasons for the change.

The Army released All Army Activities Message 381/2011 to explain the changes to the ATSTP motorcycle and driver's training courses effective Oct. 1, 2011, and the reasoning behind those changes. The PMP consists of the Motorcycle Safety Foundation's Basic *RiderCourse*, Experienced *RiderCourse*, Military Sportbike *RiderCourse*, Motorcycle Refresher Training and Motorcycle Sustainment Training. These courses are listed in Chapter 11-7 of the Oct. 4, 2011, Rapid Action Revision to Army Regulation 385-10, The Army Safety Program, and are intended to instill a lifelong learning process and periodically refresh perishable motorcycle riding skills.

The BRC is a one-time requirement for all Soldiers prior to operating a street-licensable motorcycle. While the BRC is the course the Army is most familiar with, there are two other courses that also meet the requirement: Idaho Star Basic I and Team Oregon's Basic Rider Training Course. Idaho Star and Team Oregon are state-approved curricula and provide an alternative to MSF courses, which are not available in those states. Course completion cards issued by Idaho Star or Team Oregon meet the Army requirement for basic motorcycle training, as does the respective state course for experienced and advanced training.

The ERC, also known as the Basic *RiderCourse* 2, is required for cruiser, touring and standard-type motorcycles. This course could be completed 60 days after the completion of the BRC, but riders have up to 12 months to complete this requirement. Sport bike riders must complete the MSRC under the same time constraints as the ERC, and this course also applies to riders of sport-touring motorcycles.

Soldiers returning from a deployment lasting longer than 180 days must complete MRT. This training reacquaints the rider with his or her motorcycle and ensures he or she can ride safely by performing basic maneuvers. It also allows the trainer to review the

DID YOU KNOW?

The MSF-USA has chosen to rename some of their courses. Eventually, the Army courses will likely transition to the new titles used by the MSF. The BRC does not change; however, the ERC is now the BRC 2. The reason for this change was that while the BRC/ERC were always intended to be taught in conjunction with each other, in many cases they weren't. The MSRC was developed by the Army and Navy to address accident trends. The course garnered so much attention that the MSF released the MSRC to the public titled as the Advanced Rider Course-Sport Bike Techniques and took it a step further by training cruiser riders as well as sport bike riders. The course is now re-titled as the Advanced Rider's Course. Rider training in the United States is progressing and becoming more behaviorally oriented. Look forward to better things to come in military rider training.

Soldier's previously completed motorcycle training while ensuring proper licensing, insurance and personal protective gear are in order and the motorcycle is safe to operate.

The final requirement of the PMP is MST. Soldiers are required to complete this training every three years based on the type of motorcycle owned and operated. For cruiser, standard and touring riders, retaking the ERC is required, while sport bike and sport-touring riders must enroll in another MSRC. Contact your installation safety office for more information on course availability.

Should riders choose to seek more advanced training outside the Army requirement, they have the option to take an Army-approved advanced-level course at no expense to the government. Formal training such as the BRC, ERC or MSRC is often required as a prerequisite to a track day. When the two courses are combined, they create an advanced level of understanding. A list of advanced-level courses meeting Army criteria is located on the USACR/Safety Center website, https://safety.army.mil.

Riding a motorcycle requires a great deal of attention from the rider. Many riders (myself included) develop some bad habits over the years. The intent of the PMP is to periodically bring riders back to ensure their riding skills stay sharp and provide them the tools to make wise risk decisions on the road. This is especially important because we're now seeing a rise in rider indiscipline, primarily excessive speed. Curbing this trend lies solely with us — we must police our own. If peer counseling has no effect, then leadership must be involved. The old phrase says "somebody knows," and that somebody may be you. If it is, you are not doing your buddy a favor by turning a blind eye to their indiscipline. What you are doing is providing the accident investigation team with another person to interview when disaster happens.

Total force sustainment is critical to our nation's defense, and every Soldier has a duty to remain mission ready. Senseless losses due to indiscipline impact unit readiness and the Army's ability to protect our nation and our freedoms. The PMP and other training programs provide lifelong learning opportunities that reinforce safe behaviors and enforce standards, keeping Soldiers safe and ready for the fight.

SPRING FEVER

EARNEST EAKINS AND STEVE KURTIAK
Driving Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

The days are getting longer and warmer, and the urge to throw your leg over the saddle and fire up your motorcycle is almost too much to bear. But before you bring your bike back to life, there are a few things you must do to get ready for the riding season.

First, listen to your MOM — and by that, we mean your motorcycle owner's manual. If you put your bike in hibernation according to MOM's instructions, simply follow the book to get your scoot back on the road. Pull off the cover, fill the gas tank, change the oil and check the tires for correct pressures and signs of dry rot. Remove any plugs you installed to keep the critters out of your exhaust, carburetor and air filter intake, and then connect the battery following your MOM's procedures. Pretty easy, right? However, if you just parked your bike in the corner or your garage and didn't connect the battery to a trickle charger, you might need a jump to get the engine fired up. Remember, always listen to MOM!

A thorough inspection comes next. Between your MOM and the standard T-CLOCS inspection (for the complete checklist, visit www.msf-usa.org/downloads/t-clocsinspectionchecklist.pdf), you should be covered. Remember, any item that fails inspection must be addressed before you hit the great outdoors.

Your bike is just one part of the equation — now it's time to check your roadworthiness! Try on your personal protective equipment to ensure it still fits and is in serviceable condition. Any extra pounds you put on during the holidays could mean a trip to the bike shop to buy a new jacket or leather chaps.

Also remember your skills might be a little rusty after a few months off two wheels. Forget about making a long trip to Daytona Beach; instead, ease back into shape by practicing the drills outlined in the Motorcycle Safety Foundation's "Riding Tips" handbook (a free downloadable copy is located at www.msf-usa.org/downloads/Riding_Tips.pdf). If it's been more than a few months since your last ride, you'll probably need a refresher course to satisfy the Army's new motorcycle training requirements. Progressive and refresher training courses are now offered at installations across the Army, so contact your local safety office to schedule a time.

Once you hit the road, stay alert to problems like cracks or potholes that might have developed over the winter. Soldiers stationed in colder climates should be very familiar with the unexpected jarring and rattling that comes with a new pothole and leaves you wondering if you bent your rims. Finally, check to see if your installation has a Motorcycle Mentorship Program. The MMP is a great way to meet people who share the same passion for riding while enjoying group rides and activities. If your installation doesn't have an MMP, contact your safety office or visit the MMP website at https://safety.army.mil/mmp/ for information on starting a local chapter and a listing of riding associations in your area.

Whether you're a hardcore or fair-weather rider, machine, mind and body must be firing on all cylinders to ensure a safe and enjoyable riding season. Warm weather will come and go, so enjoy it while it's here. Live to ride, and ride safe!

AQUA SMARTS

MEGAN CONN
U.S. Army Corps of Engineers – Fort Worth District
Fort Worth, Texas

I was finishing a long day of lake patrol when I heard a voice over the radio say, "There has been a report of potential drowning." Immediately, my body went numb. All I could think was, "Please let it not be true." I've spent four years as a park ranger for the U.S. Army Corps of Engineers and, unfortunately, seen the same scenario replayed repeatedly — lives lost from both carelessness around the water and lack of education concerning water safety.

According to the Centers for Disease Control and Prevention, drowning is one of the leading causes of unintentional deaths in the United States. It's estimated that 10 people die each day as a result of drowning. Sadly, a large portion of those victims are would-be rescuers. Before attempting to rescue someone, always keep in mind Reach, Throw, Row and Don't Go.

- **Reach.** If someone near you is drowning, first try reaching out to him or her with something near you such as a pool toy, branch, fishing pole or anything sturdy. Remember not to lean too far over and keep your feet firmly planted where you are standing to prevent yourself from falling in and also becoming a victim.
- **Throw.** If the person is too far out to reach, throw something to them. Make sure you throw something that floats (e.g., an ice chest, life preserver, throw cushion, ring buoy, etc.). If possible, it is best to tie the object to something secure to pull in the victim.
- **Row.** If reaching and throwing are not feasible and you have access to a boat, you can row to the victim.
- **Don't Go.** Unless you are a trained professional in water rescue (e.g., a trained lifeguard), never go in after a victim. A drowning person will try to climb on top of the rescuer, forcing them under the water in an effort to stabilize themselves and get air.

There are a few rules everyone should remember when swimming or boating. First, never swim alone. We aren't invincible, and you never know what will happen. Nobody plans to drown, and it only takes seconds. A drowning person doesn't make a lot of noise; try gasping for air and screaming and you'll see it doesn't work very well.

Second, know your limits. It only takes enough water to cover a person's nose and mouth for them to drown. So many times we try to be the "cool guy" and push or exceed our capabilities. I have seen too many bodies pulled from the water as a direct result of pushing limits and taking unnecessary risks.

The most important thing any of us can remember is to wear a personal flotation device. I have never seen a drowning victim that was wearing a PFD. There are many types of PFDs available for water-based activities. Choosing not to wear one should never be an option. The difference between choosing to use a PFD and going without could be your life. Nobody is waterproof, so always wear your PFD!

Following simple rules and using good judgment around water will save your life and possibly the lives of others. Don't end up drying out in the morgue.

DID YOU KNOW?

The U.S. Army Combat Readiness/Safety Center has created an interactive, web-based product designed to increase water safety awareness and to reduce the incidence of water-related deaths and injuries. The Water Safety site presents safety-related content to users through links, videos and entertaining and informative challenges. Check it out today by visiting https://safety.army.mil/SafetyCity/. Challenge your friends, beat the high score and show off your skills by competing in our water safety challenges.

COL. JOSEPH F. MCKEON
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Fort Rucker, Ala.

Practice Like You're Going to Play

Here we go again — another heat article. I'll bet if this were a "Jeopardy" category, you'd wager the whole pot. "Heat injury for $500, Alex!" What can I tell you that you don't already know? Drink more water. Avoid exertion during the hottest part of the day. Gradually acclimatize yourself. Eat your vegetables. Floss. OK, you get the point.

What is hot, anyway? I guess it depends on your point of view. What my teenage daughter considers hot, I consider criminal. What a guy from Michigan considers hot, an Alabamian considers sweater weather. And compared to July in the Middle East, a sweltering summer day in the Deep South would seem like a spring morning. Obviously, hot is relative, so here's the point: Heat can kill, and it can adversely affect your mental performance long before becoming deadly. Soldiers ill-prepared for the heat tend to perform more poorly, and today's Army is no place for poor performance — especially in the cockpit. You need to do everything you can to protect yourself.

Mental Performance

Have you ever noticed how hard it is to stay awake in an afternoon class when the room is hot, the instructor is boring and you've just had lunch? Part of the problem is the boring instructor; but he was also boring this morning and you stayed awake! Another issue is eating lunch. All that blood flow is going to your gut to digest that super-sized value meal. And another factor is what we call the circadian trough, which is the time of day when everyone's sleepy. Yaaaawn! But the hot, stuffy room is a big piece of the puzzle. We just don't perform as well mentally when we're in a hot environment. It's no wonder so much of the world takes a siesta on hot, nonproductive afternoons. Many of us don't have that luxury; we must perform complex tasks in that greenhouse otherwise known as a cockpit.

The upper limit of heat exposure for unimpaired mental performance is about 85 F wet bulb globe temperature for an individual working two hours or longer. (A WBGT of 85 F is a relatively modest heat threat). This means that even with appropriate work/rest cycles and proper hydration, Soldiers in hot environments will still suffer mental performance degradation that could ultimately affect the mission.

Continuous, repetitive, boring tasks tend to be affected most by degraded mental performance. I can still remember dozing off during flight school while flying straight and level on a summer afternoon under the hood. With the hazards that exist from the man, machine and environment interface, operating an aircraft (or a wheeled vehicle for that matter) isn't the best time for your mental performance to lapse. Leaders must consider these factors when planning operations in hot conditions. As much as it is possible, train in conditions similar to those you will have to operate in. Practice like you're going to play!

Vigilance

Vigilance, like keen eyesight and devastating good looks, are requisite skills for an aviator (well, they used to be — I think they have recently given out a few "good looks" waivers). Commentary aside, flying is arguably a bit more technically demanding than driving an automobile, requiring the operator to be constantly alert to the surroundings, displays and his crew. Vigilance can be adversely affected by heat, which can be catastrophic. Fortunately, flying's inherent stimulation usually overcomes the monotony that sometimes afflicts the operators of more mundane vehicles. The margin of error requires constant vigilance, and the decrements brought about by heat must be mitigated. In addition, many other military activities require Soldiers to be watchful and alert for extended periods of time. Performing sentry duty, surveillance, fireguard, monitoring instruments and driving a Mine Resistant Ambush Protected vehicle all require the individual to be vigilant.

Temperatures higher than 85 F with 63 percent relative humidity

adversely affect Soldiers' vigilance, even those well-acclimatized to the heat. Add an Air Warrior ensemble, some body armor and an electric hat — that equals hot! It is important commanders recognize this limitation and take necessary steps to ensure their Soldiers get adequate breaks from extended duties. An extra set of eyes will also help mitigate the adverse effects of heat. Don't set up your Soldiers for failure!

Changes in Sleep Behavior

Sleep, like food and water, is necessary for health. Humans can go for short periods of time without sleep, but eventually a sleep debt will build up and must be paid. A restful night's sleep lets the brain restore itself, thereby allowing the Soldier to perform at his maximum ability. That is the crux of the fighter management program that all aviation units employ. Everyone reading this article probably realizes that sleeping in a hot environment adversely affects their sleep. Soldiers who acclimatize to the physical effects of heat stress can increase their ability to perform physically. Do you remember the summer football practices, and how much tougher you were once the season started?

Sleep patterns, however, don't improve over time in a hot environment because sleep quality and effectiveness are reduced at high temperatures. In fact, studies have shown that heat is more disruptive to sleep than noise. In hot environments, you don't wake up as rested as you should, and your performance suffers as a consequence. Leaders must do everything in their power to provide a cool, protected environment for their Soldiers. When that's not possible, Leaders should plan for possible lapses in performance due to fatigue and mental exhaustion. The unit's risk assessment should also reflect the increased hazard of fatigue on aviator performance.

Conclusion

There you have it. Heat cramps, heat exhaustion and heat stroke have been described in this and other publications in the past, but the adverse effects on cognitive abilities aren't often discussed. Living and working in a hot environment has a significant impact on sleep patterns, work ability and cognitive function. Simply put, you have trouble sleeping and paying attention, and you aren't as smart as you usually are. We've all seen those zombies in the tactical operations center who aren't getting the sleep they need. The Army needs every Soldier every day, so take care of your body. After all, where else are you going to live?

> "Sleep **PATTERNS**, however, **DON'T** improve over time in a **HOT** environment **BECAUSE** sleep quality and **EFFECTIVENESS** are **REDUCED** at **HIGH** temperatures. In fact, studies have shown that **HEAT** is more **DISRUPTIVE** to sleep than noise."

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ARMY SAFE IS ARMY STRONG

Editor's note: Two pilots assigned to the 160th SOAR (Airborne) received the Broken Wing Award Dec. 12, 2011. Chief Warrant Officer 3 Stephen D. Love and Chief Warrant Officer 3 Bryan P. Young were presented the award from the U.S. Army Combat Readiness/Safety Center for their skill, judgment and technique during an in-flight emergency. The Broken Wing Award recognizes aircrew members who demonstrate a high degree of professional skill while recovering from an in-flight failure or malfunction requiring an emergency landing. Love and Young were able to safely bring down their MH-47 Chinook after experiencing a complete hydraulic failure as a result of enemy fire.

SETTING CONDITIONS FOR SUCCESS

CHIEF WARRANT OFFICER 3 (PROMOTABLE) STEPHEN D. LOVE
Bravo Company, 2nd Battalion,
160th Special Operations Aviation Regiment (Airborne)
Fort Campbell, Ky.

On Sept. 9, 2010, we received the call to conduct combat operations in the northeastern mountainous areas of Afghanistan. Over the previous 10 nights, we had conducted operations throughout Afghanistan, so the call for action was not completely unexpected. However, we never expected this night to end the way it did.

We were the lead MH-47G in a flight of three. My co-pilot, Chief Warrant Officer 3 Bryan Young, and I had been flying off and on together for many years and continuously for the last 30 days on this particular rotation. The rest of the pilots in the flight were familiar and comfortable with each other, which made for excellent crew coordination in each aircraft.

We departed our airfield under the cover of darkness with zero illumination. Both Chalks 1 and 2 had about 20 Special Operations Forces personnel on board, putting the aircraft gross weight at 44,500 pounds, while Chalk 3 was carrying a 10-man initial reaction force and a six-man combat search and rescue force. The 20-minute flight would take us to the helicopter landing zone, which was south of our forward staging base in the mountains.

At 10 minutes out, we received updates regarding the enemy position and our particular HLZs. Only Chalks 1 and 2 were infilling tonight, so I directed Chalk 3 to enter into a holding pattern should any contingencies develop.

Seven minutes had gone by and all seemed normal until we received intelligence updates indicating we had one enemy combatant moving away from the primary target area. This is not an abnormal occurrence, but it requires effective coordinated communication with the lead cockpit for command and control. The ground force commander, air mission commander and I all communicated with each other, ensuring information was conveyed throughout the battle space. Since the enemy combatant did not come out of the primary target building and was moving away from the two infil HLZs, the ground commander and I ultimately saw no reason to deviate from the primary plan.

While all of this communication was going on, Bryan was waiting patiently to ask me one simple question, "Did you touch the flight controls?" Around the same time, we had enemy movement and Bryan had felt an abnormal vibration in the flight control system. It had only lasted a second and felt as if the pilot not on the controls had accidentally bumped them. I responded to him that I had not, yet we both knew it was possible I did. While in a blacked-out cockpit and under night vision goggles, I attempted to spot the HLZ, communicating over the radio and bending forward to enter mission data into the aircraft's avionics suite. I could have easily bumped the controls while doing this, so we went back to focusing on the mission.

The infil went as planned. The HLZs for the flight were long, thin spurs that made up the foothills of the 14,000-foot mountain range and flowed into the valley floor, creating deep ravines as they continued to the river to the north. After infil, we began to egress on the planned route and took enemy fire from the target area as we cleared the dust cloud. This caused us to deviate from our planned route and continue parallel to the mountain range. The evasive maneuver put us low and fast, flying 150 feet above ground level at120 knots.

Once again, I heard Bryan ask, "Steve, did you hit the flight controls?" over the internal communications system. This time I was sure I hadn't and announced, "Left seat inside," ensuring Bryan and the four crewmembers in the back picked up my scan outside for airspace avoidance. Using a small finger light, I began to look around the flight controls to make certain nothing was interfering with them. I didn't see any problems, so I took over the flight controls from Bryan and asked him to do the same on his side of the cockpit. At first, the flight controls felt normal, and then I felt what Bryan had been asking about.

In less than a second, the aircraft cyclic violently shook left and right about an inch. This happened so fast that the aircraft's integrated hydraulic/mechanical controls didn't have time to take the inputs from the cyclic and input them into the rotors. Also, the thrust of the aircraft pulsated up and down, but not as violently.

We were still evading enemy fire, flying about 150 feet AGL at 100 knots. I began maneuvering away from the ridge paralleling us on our right. As I turned, the flight controls hit a stop. I had about an inch of play in the pitch, roll and thrust axis of the aircraft. I immediately rolled level and attempted to set up for a landing, asking Bryan to get back on the flight controls with me. As he did, he understood how dire our situation was becoming.

About the same time, the aircraft hydraulics froze. We were in about 5-degree nose-high attitude descending at 100 feet-per-minute. The only problem was there was no place to land. Beneath us were 150-foot deep ravines with bottoms too narrow to fit a Chinook. I left Bryan on the controls as I began the emergency procedure for a dual hydraulic flight control failure.

We had not received any warnings or cautions on our instrumentation

> **GOOD CREW COORDINATION** was an important part to the **SUCCESSFUL OUTCOME** of the emergency procedure. However, **BATTLE ROSTERING** played just as **LARGE OF A ROLE.**

nor did the crewmembers in the back have any indications on their maintenance panel identifying a hydraulic failure. I recalled the aircraft operator's manual stating, "If both hydraulic systems fail, flight controls cannot be moved." I immediately concluded we had a dual flight control hydraulic failure. Although I completed the emergency procedures, the flight controls remained locked.

I returned the controls to Bryan, hoping he might be able to regain some level of control, but that proved futile. The aircraft was in its final attitude and nothing Bryan or I did was going to change that. We continued to pull and push the cyclic with both hands in an attempt to maneuver the aircraft to a suitable landing area. The crewmembers in the back began to call out possible landing sites, not knowing it was impossible for us to slow the aircraft to maneuver to them.

The deep ravines began to turn into rolling hills, all too steep to attempt a roll-on landing. Then at the two o'clock position, Bryan noticed an opening in the hills that led to a dry riverbed. He announced this to me and we attempted to maneuver the aircraft, but, yet again, the cyclic would not move.

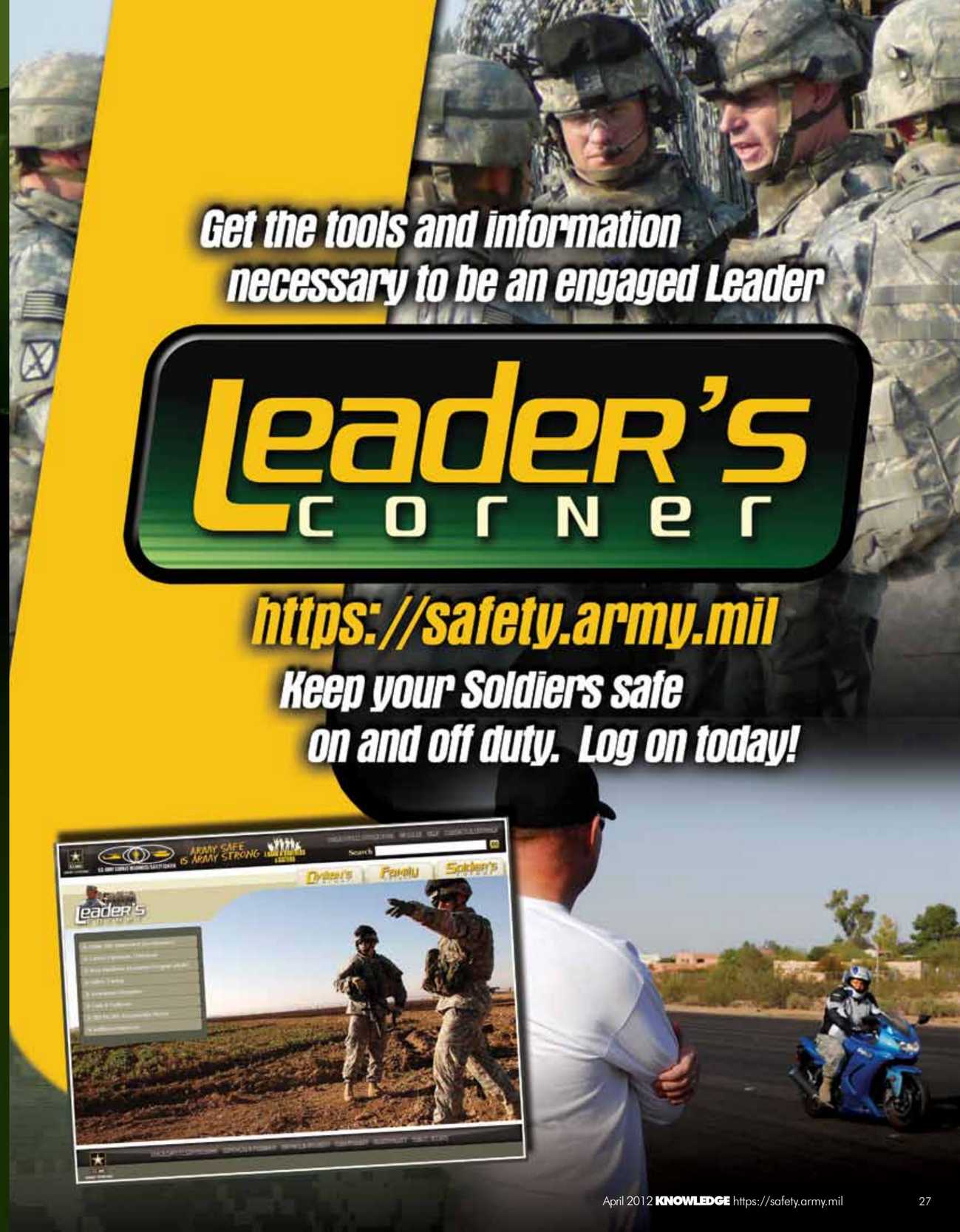
Our minds raced and then I realized the only control axis we had not attempted was the yaw axis. This is done by adjusting the flight controls that are mechanically linked to the Chinook's pedals. I pushed the right pedal to maneuver the aircraft to the two o'clock position, but the pedal would not move. I tried again, this time pushing on the right pedal with both feet as I braced my back against the aircraft seat and used the cyclic for better leverage. Bryan was still attempting to manipulate the other flight controls as the aircraft's attitude began to change, also changing the aircraft's aerodynamic state. The riverbed came into the 12 o'clock position as the hill we were heading for passed out the left-hand side. Once I released the pressure on the pedal, the aircraft continued forward. We were now at 30 feet AGL and 50 knots and still descending.

The aircraft touched down in the riverbed at 45 knots with a 5-degree nose-high attitude. As the aft wheels touched, both Bryan and I pushed down on the thrust as hard as we could in an attempt to change the dynamics of the rotor system and keep the aircraft on the ground. The aft wheels dug into the loose sand, burying them up to the aircraft frame. We rolled for about 75 feet before the aircraft brutally stopped, throwing us forward. The whole event, from the controls freezing to the aircraft coming to rest, lasted between 45 and 60 seconds.

Not knowing whether enemy fire had anything to do with the hydraulic failure, I quickly conducted an emergency engine shutdown and we began egress procedures. The exact distance from the enemy was unknown to us. After ensuring none of the crew was hurt, we began to establish a 360-degree security of the area. I made contact with our other aircraft using my survival radio and, within minutes, the initial reaction force and combat search and rescue teams were on the ground to assist. Thirty minutes later, our internal downed aircraft recovery team launched from our airfield and was on site for recovery.

We discovered later that four times the allowable amount of water had gotten into the flight control hydraulic fluid system. Water has a lower boiling point than hydraulic fluid and, at some point during the flight, the water vaporized, causing the hydraulic system to cavitate.

Good crew coordination was an important part to the successful outcome of the emergency procedure. However, battle rostering played just as large of a role. Bryan and I have had years of aircrew coordination training and understand how important this is in the Chinook community, especially with a crew of six. The fact remains if that was our first flight together, the outcome may have been different. The benefit of battle rostering crews (for short durations) allowed for more effective crew coordination.



Restoring that Classic Bike

CHIEF WARRANT OFFICER 5 THOMAS L. BOWIE
Joint Forces Headquarters
Arkansas Army National Guard
Little Rock, Ark.

You've scoured eBay, read all the classified ads, looked at Craigslist and finally found that classic motorcycle you've wanted since you were 17 but couldn't afford. You were even lucky enough to find one that just needed the old gas drained from the tank, new gas poured in and the engine started. Do you just get on it and ride? No, you don't!

There are several things that you should consider when putting a vintage motorcycle back on the road. First, if the tires are old, you will need to replace them. They may appear serviceable, maybe even look new — but those aged tires are definitely not roadworthy. Rubber deteriorates while in storage, and dry rot and weather take their toll. The older tire technology is also a factor to consider. Newer-technology tires provide better handling and road-holding capabilities. If you're determined to maintain your bike's vintage appearance, there are online vendors who can provide you with original-style tires.

The next item on the list is brakes. You really want to be able to stop that beautiful old bike when the time comes. The brakes on older machines don't have the stopping capability of modern motorcycle brakes. Even if your prize motorcycle has disc brakes, there may be issues with the operation of the brake system.

Check the brake system for rust in the fluid reservoir and make sure the hoses have not deteriorated and the connecting fittings are secure and not leaking. Examine the disc for rust and the brake pads for thickness and sticking. Replace any unserviceable parts, making sure you put everything back together correctly.

Machines with drum brakes require even more attention. It's important to check the shoes for sufficient lining thickness, deterioration and security of the liner mounting to the shoe. Also check the brake drum for glazing and whether it is out-of-round. A new wheel hub may be the order of the day to resolve this problem. Some motorcycles have hydraulically operated drum brakes, so you should check those components the same way you would check a disc brake system. Other vintage motorcycles have mechanically operated drum brakes, so you need to check the condition of the hand levers and brake pedals as well as the rods and cables. Replace any of those parts that are worn or frayed.

Now you've got new tires and a brake system that works — at least as well as the older braking system ever worked — let's talk about lighting. Older British bikes had very poor lighting systems consisting of not much more than a flashlight bulb and a reflector assembly. And British bikes weren't the only ones with shortcomings when it came to lights. The good news is there are many new halogen and LED replacement systems available today that will fit directly into your vintage bike's headlight housing. Don't forget about your taillight, brake light and turn signals — if your classic machine has them. There are LED conversions that will make motorists behind you take notice when you step on the brake pedal.

Make sure you also inspect the frame for broken or rusted welds. It could be a bad day for you should the frame separate when you're going down the road. Rust or paint can often hide the condition of the chassis. Also check the kickstand to make sure it is properly mounted and maintained. Check the return spring to make sure the stand doesn't drift down in the middle of a ride, a situation that could lead to disaster.

There are many other items that can be updated to make your vintage motorcycle both safe and dependable. These are the areas I consider the most important, not only to function but also to safety. Spend some time, effort and money in these areas and you can safely enjoy your newfound treasure.

SHELTER FROM THE STORM

GEORGE WYATT
Installation Safety Office
Fort Campbell, Ky.

It seems we barely get through one severe weather season when another comes along. That's happening for us now in middle Tennessee and southern Kentucky, as the threat of severe winter weather is replaced with the risk of severe spring weather. Historically, our most severe weather threats come in the form of thunderstorms, tornadoes and floods during March, April and May as the jet stream retreats north and warmer air falls in behind it.

One doesn't have to go back very far to see severe weather events in the Fort Campbell area have changed the lives of citizens and the landscape forever. We experience severe thunderstorms resulting in varying levels of injury and property damage every year. The major threats during these episodes are straight-line wind, lightning strikes and flash flooding.

Residents of Clarksville will never forget the five-minute event that occurred from 4:15 to 4:20 a.m., Jan. 22, 1999, when an F3 tornado tore a swath of destruction 4.3 miles long and 880 yards wide through downtown. This storm caught everyone by surprise because it actually occurred outside the typical spring severe weather season. It came six weeks earlier than anyone would expect for this area.

More recently, on May 1 and 2, 2010, a super-moist weather system settled over Clarksville, dumping about 14 inches of rain. Flash flooding was almost immediate. Water drainage continued for days, resulting in the Cumberland River cresting at more than 16 feet above flood stage level. Many streets, homes and businesses in Clarksville and the surrounding area were flooded, resulting in injuries to citizens, vehicle accidents and major property damage.

Adverse weather can occur nationwide, so what can we do to protect ourselves? The answer is be prepared for variable weather emergency scenarios, have an emergency action plan, stay aware of the situation and conditions as they change around you and react (or huddle in place) as necessary.

A number of federal, state and local agencies work to monitor meteorological activity and alert you when hazardous weather is on its way. Communities and installations use a number of ways to get weather alerts out; local radio and television stations are used in addition to weather radios. Alerting agencies can send voice and digital messages to computers, cellphones or smartphones and other devices.

When receiving alerts, it's important to know the difference between a WATCH and WARNING. When a watch associated with a weather phenomenon such as a severe thunderstorm is issued, it means severe thunderstorm development is possible for the area described in the alert.

People in the alert area should be on heightened readiness in the event a warning follows. A severe thunderstorm warning indicates severe thunderstorm activity is already occurring in the area. It is important that people take precautions to protect against extremely low visibility due to heavy rain, dangerous lightning strikes, large hail and damaging straight-line wind and high-velocity debris.

When weather observers determine an area is subject to potential tornado development, they issue a tornado watch. During a tornado watch, it is necessary to assume a heightened state of awareness of the situation, monitor weather updates and be prepared to respond to deteriorating conditions should a tornado warning be issued. A tornado warning means tornado activity has been sighted in the area.

A flood or flash flood watch issued for a particular area indicates the conditions are favorable for flooding. When it has been raining hard in an area for several hours or steadily for several days, the potential for flooding is a real threat. People in flood watch areas should be familiar with flood patterns, monitor the situation and be prepared to react logically in the event a warning is issued. A flood warning indicates flooding is occurring in the area or will occur soon. In a flood situation, a warning may be accompanied by an order to evacuate.

Storm systems may be observed making their way across vast areas or states and may be relatively unchanging and give plenty of warning of their arrival. In other circumstances, they may develop rapidly and much closer with little or no warning. It is important to understand the general, but wide-ranging, characteristics of storm systems and develop an action plan for your workplace and home and a driving or recreation contingency so everyone knows what to do before the storm shows up on your doorstep. Here are some tips to help keep you and your loved ones safe during adverse weather:

Severe Thunderstorms

When a severe thunderstorm watch is issued, begin monitoring the situation via whatever media is available. Keep in mind that if you are monitoring television provided by satellite, your service may be interrupted when heavy clouds and rain move in. A battery-powered radio is preferred because it will continue to broadcast updates even if electricity fails. A weather radio with good batteries is the best choice. If you're at work or home, begin to review your action plan. If traveling by vehicle, consider stopping at a rest stop or town that has public facilities for shelter and wait until the storm has passed. Remember that stopping under an overpass isn't the safest option.

The average single thunderstorm will pass in 30 to 45 minutes. A line of thunderstorms will take significantly longer to pass if they are moving over your area. If in or on the water, head for shore and seek shelter. If a severe thunderstorm watch alert is issued, monitor your alert system or media more vigilantly and be prepared to move to a safe place within your home, office or shelter. A safe place is an interior room, closet or bathroom with no windows. The more walls between you and the building exterior, the safer you are. If a severe thunderstorm warning is issued, move to your safe place and wait there until the warning has expired.

Tornadoes

Responding to a tornado watch or warning is similar to that of a severe thunderstorm. After all, it's an unusually giant, rotating thunderstorm that ushers in tornado activity. For protection against tornadoes, your safe place should be on the lowest level of whatever type of dwelling you are in. As soon as a tornado watch is issued, take pillows, quilts and blankets to your safe place. If you have bicycle or motorcycle helmets or sports protective headgear, take these items to your safe place. If a tornado warning is issued, go to your safe place and protect your head with a helmet or pillow. Roll up in blankets or quilts to protect your vital organs. You will know if a tornado is upon you by an unmistakable sound and vibration that has been described by survivors as the sound of a freight train coming through. Stay in your safe place until the warning has expired.

Flooding

Flooding may be a problem during the storm event and for days afterward, as water continues to drain into streams even after the rain has stopped. It's smart to monitor your specific area for flooding so you can ensure, as much as possible, a means of evacuation and not become trapped. If you do find yourself trapped, immediately call for assistance. Soon after water rises above the first level baseboards of a home or building, the electricity will go off. If flooding is imminent, make the decision to evacuate instead of waiting it out in a flooded building or home. Know in advance where you will evacuate to.

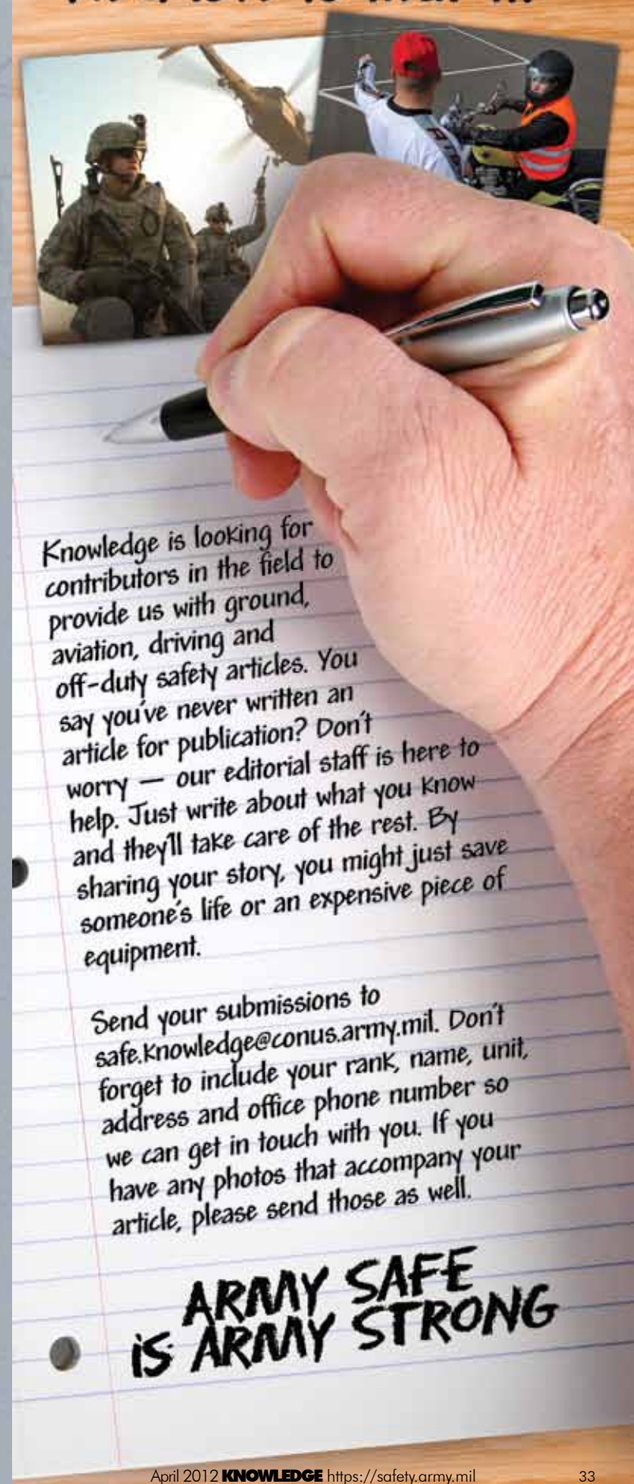
When driving in a flood area, never drive through flowing water that has risen above the road surface. Turn around and take a different route. It only takes 18 to 24 inches of flowing water to sweep an average-size car off the road and into the stream. Culverts and bridges may be washed out and camouflaged by the water. You could drive your vehicle right into the stream. Vehicles stall easily in floodwater and cause the driver and occupants to attempt self-evacuation, putting them in grave danger.

Also avoid walking through flooded areas. It only takes about six inches of flowing water to sweep a person off their feet, and a lot less for someone to drown. In addition, remember water is an excellent electrical conductor, so lightning and downed power lines are especially dangerous if you attempt to share the same water.

Conclusion

Natural disasters such as floods, fires, earthquakes, tornadoes and windstorms affect thousands of people every year. Don't wait until adverse weather strikes. Recognizing an impending hazard and knowing what to do to protect yourself and your Family will help you take effective steps to prepare beforehand.

Got a story to tell? We'd love to hear it!



FIGHTER Management

NAME WITHHELD BY REQUEST

Perhaps the greatest challenge for any commander during a combat deployment is developing a comprehensive resource management schedule that can support combat operations without burning out his or her personnel. The battlefield has no interruptions — thanks to technological advancements — and, whether day or night, we must always be prepared to fight. However, these continuous operations present a series of personnel management issues that must be addressed by every level of leadership.

The generally accepted rule is there are three standard shifts to accomplish 24-hour operations: day, night and quick-reaction force. One company should be responsible for only one shift, but working out a schedule with limited manpower is a daunting task and one solution doesn't fit all situations. Each airframe or vehicle has its own unique work environment, and commanders must tailor their rest program based on their aircraft's idiosyncrasies, not a generic fighter management plan developed at the Army Headquarters level.

Due to the unusual demands placed on our Soldiers in terms of hours worked, stress, Family separation and countless other problems, it's of paramount importance commanders do all they can to establish a consistent and equitable work pattern when practical. A consistent work pattern offers security and mental stability for Soldiers, allowing them to organize their days and lives. We're all creatures of habit, and habit promotes safety and efficient production. This is a good thing.

A good commander will realize the issue of fighter management is at the heart of true leadership. One that neglects this subject or delegates it to someone else is shirking their responsibility. Anyone can mindlessly say, "Work until the regulation or SOP says you can't work anymore." However, Leaders must remember this fight is a marathon, not a sprint.

Think of it in terms of engine temperature. Imagine an aircraft's engine temperature consistently operating in the yellow or red range. When your Soldiers are pushed beyond the limit every day, just like that engine, they'll fail. This failure will show in the form of safety breaches, operational errors and even suicides. Find the "green" and keep your Soldiers there with limited time in the yellow and red zones. Soldiers want to do the mission and they want to serve their country proudly; otherwise, they wouldn't have volunteered for duty. Give them a schedule that allows this to occur, not one that takes advantage of their patriotism.

Set yourself apart from other Leaders by carefully looking at everything you and your Soldiers are facing to determine the best crew endurance program for your team. Some obvious factors to evaluate include the environment, mission demands, equipment issues, personal affairs, support systems and culture. Remember, they're your team not the enemy, and the circle of support begins with you. Anyone can be put in charge, but not everyone can handle the responsibility correctly.

A Leader shows his or her concern (or lack thereof) for their Soldiers through a scheduling system. Morale will increase or decrease proportionate to the level of thought revealed in a work schedule. A poor schedule results in low morale, but a good schedule will create positive workers that produce positive results. Positive attitudes create environments conducive to successful operations that, in turn, equal mission success. This success can be achieved through a good fighter management program.

Commanders are human resource managers, so know your Soldiers. The U.S. Army Aeromedical Research Laboratory has performed several studies regarding human biology and peak performance levels during the course of a day, including such variables as extreme heat and cold. The goal is to put our Soldiers in the fight when they're at their biological peak so they can perform at optimal levels. For aviators, this means ensuring they begin flight duties in the first third of their day, but no later than the second third. The same concept holds true for ground troops as well. They deserve to be put in the fight at their best.

Leaders have to know their Soldiers, and this personal knowledge is the key to an effective fighter management program. Talk to them and listen to their concerns. A conscientious work schedule will reap immeasurable rewards in terms of support and unit morale. Make it happen because it's worth the effort. Engaged Leaders save lives.

Forecast for Trouble

RETIRED LT. COL. MITCHELL B. COHEN
Headquarters and Headquarters Company, 2nd Medical Brigade
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San Pablo, Calif.

When the Mamas and the Papas sang, "It Never Rains in Southern California," they forgot to mention that sometimes it snows.

April in Iraq is hotter than hell's hinges, with daytime temperatures topping 120 F. I'd been there for 18 months when I got my chance in April 2009 to return stateside for 15 days of rest and recuperation leave. I was looking forward to enjoying a special vacation with my children. My plan was to pick them up in New Jersey, fly with them to Sacramento, Calif., and rent a red convertible Mustang. We would do some sightseeing and then drive down the California coast on U.S. Highway 1 to my best friend's home in Palm Springs.

The trip got off to a good start with a day of sightseeing in San Francisco, followed by a good night's rest before heading to Yosemite National Park to see the redwoods and the Petrified Forest. What happened next, however, is a textbook example of bad planning or, as some would say, no planning at all.

When we got up the next morning and left San Francisco, it was raining and the temperature was 55 F. Two and a half hours later, as we climbed into the higher altitudes of the Sierra foothills, the temperature dropped to 40 F. Inside the car, we barely noticed the falling rain. We were warm and happy, listening to music the kids had picked for the ride. I was thrilled to have made it home alive from Iraq. My children were elated; daddy was home safe and taking them on the trip of a lifetime.

At the base of Yosemite National Park, the temperature dropped to 32 F and the rain turned into snow. The fact that I was driving a convertible rear-wheel-drive Mustang failed to deter me from pushing onward and upward into the Sierra Nevada mountains. Ten miles into the park, we met a line of stopped cars in front of us. A four-wheel-drive Subaru had just slid off the narrow two-lane road, its front wheels coming to rest on the sturdy branches of a 200-year-old redwood tree, which, fortunately, kept it from sliding off the mountain. Just as we arrived at the scene, a tow truck led by a forest ranger arrived from the opposite direction. All traffic was at a standstill for the next two hours while the tow truck attempted to pull the Subaru to safety.

The bad news was I'd never considered the possibility of a snowstorm at the end of April. As a result, I didn't bother checking the weather before we departed from San Francisco or during our drive east into the mountains. Nor was I familiar with the California laws which mandated chains on tires in the Sierra Nevadas during snowstorms. As we waited for the tow truck to work its magic on the Subaru, the snow piled higher and higher on the road. Six inches of the slippery white stuff had accumulated. When we were finally cleared for departure, the roads were extremely dangerous, especially for a Mustang without snow tires or chains.

During the seven hours it took to get down the mountain to safer ground, the speedometer never exceeded 15 miles per hour. On some sharp turns where the drop-off was hundreds of feet, we crawled along at 5 mph because the driving conditions were so hazardous. All I could ask myself during this nightmare was, "Was this really what I intended?" The answer was, "Of course not!" However, my failure to check the weather before embarking on this adventure caused me to unintentionally place myself and my children in harm's way. Only through the grace of the good Lord were we able to make it out of Yosemite without incident.

That experience taught me a lesson. It makes a lot more sense — and saves a whole lot of time — if you check the weather rather than get stuck in it. After all, you've got better things to do with your vacation time, right?

TRiPS HELPS TRIPS

The author's experience is one you don't have to repeat. As a Soldier or Army Civilian, you have a tool to alert you to potentially threatening weather or road conditions. The Travel Risk Planning System, online at the U.S. Army Combat Readiness/Safety Center website at https://safety.army.mil/, gives you up-to-date information on weather and road conditions to help you avoid nasty surprises. As you go through your trip assessment, you'll be asked, "Will you check the weather prior to your departure?" TRiPS makes it easy to do that by offering a button on the "Map and Go" page titled "Click Here For Weather And Road Conditions." There you'll be given the website for the National Oceanic and Atmospheric Administration along with websites for each state and even overseas locations such as Germany. Taking a few minutes to navigate these websites can put the "smooth" back into sailing for your vacation plans.

GRAB THE CAT AND RUN

MARY PROFITT
U.S. Army Medical Research and Materiel Command
Fort Detrick, Md.

I have never been fond of cooking … or very good at it, for that matter. My expertise in the kitchen revolves around the use of a Fry Daddy and something in a bag from the "frozen foods" section of the supermarket, as was the case on the day of my cooking incident.

On this day, I decided to cook up my specialty — fried mushrooms straight from the freezer. The only problem was I did not have enough cooking oil to fill the Fry Daddy. I opted instead to fill a shallow frying pan with the oil I had. This is the point where the clarity of hindsight would have been helpful.

It didn't seem like a bad idea at the time to heat the oil to near boiling and then dump in a bag of frozen mushrooms encapsulated in a fuzzy coat of ice crystals. Hunger, and my inexperience in the kitchen, undoubtedly played a role in my bad judgment.

Not surprisingly, when the frozen mushrooms hit the boiling oil, violent splashing caused the oil to spill outside the pan and onto the burner. A fire immediately erupted on the burner and in the frying pan. Instantly, my mind recalled the fire safety briefings I'd heard in grade school and the warning, "Remove from the source of heat." I grabbed the pan by the handle and quickly tried to move it to another burner on the stovetop. In doing so, the fiery oil in the pan spilled across the entire range. I now faced a flaming sheet of cooking oil that was threatening to reach the exhaust hood almost two feet above!

I remembered you should never use water to extinguish a grease fire, but I

DID YOU KNOW?

According to the U.S. Fire Administration, the kitchen can be one of the most hazardous rooms in the house if you don't practice safe cooking behaviors. Whether you are cooking the family holiday dinner or a snack for the children, practicing safe cooking behaviors will help keep you and your Family safe. Here are a few guidelines that may help prevent a kitchen mishap:

Watch What You Heat

- The leading cause of fires in the kitchen is unattended cooking. Stay in the kitchen when you are frying, grilling or broiling food. If you leave the kitchen for even a short period of time, turn off the stove.
- If you are simmering, baking, roasting or boiling food, check it regularly, remain in the home while food is cooking and use a timer to remind you that you're cooking.
- Stay alert! To prevent cooking fires, you have to be alert. You won't be if you are sleepy, have been drinking alcohol or have taken medicine that makes you drowsy.

Keep Items That Can Catch Fire and Heat Sources Apart

- Keep anything that can catch fire — potholders, oven mitts, wooden utensils, paper or plastic bags, food packaging, towels or curtains — away from your stovetop.
- Keep the stovetop, burners and oven clean.
- Keep pets off cooking surfaces and nearby countertops to prevent them from knocking things onto the burner.
- Wear short, close-fitting or tightly rolled sleeves when cooking. Loose clothing can dangle onto stove burners and catch fire if it comes into contact with a gas flame or electric burner.

For more information about cooking fire safety, visit the U.S. Fire Administration website at http://www.usfa.dhs.gov/citizens/home_fire_prev/.

> "The experience was helpful in realizing **HOW A SIMPLE TASK** could turn into an **EXTREMELY DANGEROUS** situation in the blink of an eye."

had no baking soda or flour available (what cooking-challenged 23-year-old has that sort of thing in the kitchen?). My mind was racing to find an alternative. Panicked and overwhelmed, my next thought was, "Grab the cat and run!" Then I had a "light-bulb moment." Of course ... the cat! I had an economy-sized bag of cat litter in the closet just feet away. It was my only option and, at this point, using cat litter as an extinguisher certainly couldn't make the situation any worse.

I ripped open the bag and dumped 30 pounds of litter onto the growing flames. It immediately extinguished a majority of the fire. I was able to smother what remained with a damp towel. After smoldering for hours, the mass of burnt litter began to cool and I breathed a sigh of relief. I had saved the day and was feeling pretty darn proud of myself. I realized, though, that I should have paid better attention while cooking and not added frozen mushrooms to boiling oil. Ice crystals and hot oil are a dangerous combination.

It took about a week to clean all the litter out of the range, and the exhaust hood has permanent stains that serve as a reminder of my kitchen mishap. I have not attempted to deep-fry anything since. The experience was helpful in realizing how a simple task could turn into an extremely dangerous situation in the blink of an eye. It also made me appreciate all those boring lessons on fire safety that really paid off in that moment when I had no time to think.

Family engagement kit

On the home front, a Soldier's "battle buddy" is often his or her Family. Check out the new Family Engagement Kit to learn how you can look out for the safety of your Soldier. The kit features a variety of tools, including videos, real-life stories, resources and tips to keep your Soldier safe.

https://safety.army.mil

ARMY STRONG. U.S. ARMY COMBAT READINESS/SAFETY CENTER ARMY SAFE IS ARMY STRONG THE BAND OF BROTHERS & SISTERS

That Little Voice

DARRYL FLASPHALER
Rock Island Arsenal
Rock Island, Ill.

I was in the instrument phase of flight school at Fort Rucker, Ala., and returning to Cairns Army Airfield after a long day of training. My instructor pilot was a Vietnam veteran, an outstanding pilot who had probably 5,000 hours of flight time. It was a privilege to fly and learn from someone who possessed so much knowledge and skill. My IP was not one to waste Army time or money, so when we got close to the airfield, he had me tune in the AM nondirectional radio beacon frequency and told me to get under the hood and to initiate an NDB approach. I distinctly remember he received clearance from the tower to initiate the approach. Unfortunately for us, that clearance came from a student air traffic controller who probably was not adequately supervised.

I initiated the approach at 3,000 feet, set the descent at 500 feet per minute and the airspeed at 65 knots and was in the process of actually flying an acceptable instrument approach. Needless to say, I was excited and proud — and even my IP was impressed enough to offer me some sincere words of encouragement. After telling me I was doing great and to keep it up, he told me to just focus on the instruments and to not worry about anything outside; he had the outside. So, I did what I was instructed to do.

Then, about a minute and a half into the approach, I experienced a compelling and completely overwhelming urge to look outside the right side of the aircraft. Being the conscientious student that I was, I tried hard to fight the urge, as I did not want to disappoint my IP by showing a complete lack of discipline and inability to follow instruction. But I simply could not conquer the urge to look up. When I did, I saw the IP looking outside, but out of the left side of the aircraft. With awkward hood and all, I tilted my head so I could look out the right side of the aircraft.

What I saw was another UH-1H on a perpendicular course, flying right at us! I shouted something, yanked back on the cyclic and the other Huey flew right beneath us, not more than 30 feet away. I did the three-way transfer of controls with the IP and sat back and watched as he took the aircraft straight down to within 100 yards of the air traffic control tower. I remember hearing him yelling at someone in the air traffic control tower, even with my helmet still on.

I came away with many lessons learned when I graduated flight school in 1990. That particular day, on that particular flight, I learned if your mind is telling you to do something, it's best to listen and to follow your instincts. I realized much later that this flight had some residual effects on my desire and motivation to try to excel as an Army aviator. But to this day, I am thankful that I listened to that little voice in my ear.

LOST

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, email safe.knowledge@conus.army.mil.

AVIATION

AH-64D

CLASS A

- The crew experienced loss of tail rotor authority during flight, followed by low rotor RPM and generator loss. The aircraft contacted the ground with the left main landing gear and rolled onto its left side.

CLASS B

- The aircraft rotor system contacted a Persistent Ground Surveillance System tether during flight and landed without further incident. One main rotor blade tip cap was damaged and the aerostat was lost.

MH-6M

CLASS B

- The crew experienced debris in the main rotor system during fast-rope training and executed a forced landing. The aircraft touched down hard and sustained damage to the undercarriage, structure and MRB.

OH-58D(R)

CLASS A

- Four crewmembers died in an accident involving two OH-58D(R) aircraft during night vision goggle training missions.

CLASS C

- The aircraft experienced an engine overspeed condition during FADEC manual training and landed without further incident.
- A round of a high-explosive rocket engagement resulted in three injuries to friendly forces.
- The engine experienced an overspeed condition during MOC run-up.

RC-12P

CLASS C

- The crew experienced a No. 2 engine surge and an overtorque reading during takeoff. The flight was aborted and the aircraft landed without further incident. Postflight inspection revealed damage to the propeller.

UAS

RQ-7B

CLASS B

- The crew received an IG FAIL reading shortly after launch. The recovery chute was unable to be deployed. The UA descended to ground contact with damage and was recovered.

GROUND

ACV

CLASS B

- A Mine Resistant Ambush Protected vehicle was damaged when it caught fire while it was stopped due to a flat tire.

LOSSES AVIATION — FISCAL 2012 Class A/Fatalities thru February 2012

ATTACK	2/0
RECON	1/4
UTILITY	3/1
CARGO	2/0
TRAINING	0/0
FIXED-WING	1/0
UAS	1/0
TOTAL	10/5

as of Mar. 6, 2012

Personnel Injury

CLASS A

- A local national citizen was killed and two others were injured when two 81 mm rounds impacted off target during a unit's howitzer/mortar registration.
- A Soldier presumably drowned after his body was discovered in a local creek. Prior to his discovery, the Soldier had been with fellow Soldiers.

LOSSES GROUND — FISCAL 2012 Class A/Fatalities thru February 2012

AMV	6/3
ACV	3/1
PERSONNEL INJURY (includes weapons-handling accidents)	9/9
FIRE/EXPLOSIVE	1/0
PROPERTY DAMAGE	0/0
TOTAL	19/13

as of Mar. 6, 2012

- A Solder died after falling out of a unit run.
- A Soldier was killed when he discharged a round into his head from the personal handgun he was handling.

CLASS B

- A Soldier's finger had to be amputated after his ring got caught as he was exiting through the driver's hatch of a Stryker. The Soldier was not wearing protective gloves.
- A Soldier's thumb was severed above the first knuckle after it became caught in a locking mechanism while he was carrying a vehicle tow bar.

DRIVING

POV

CLASS A

- A Soldier was killed when his speeding vehicle left the road, overturned several times and caught fire.
- A Soldier died when he was thrown from his speeding vehicle after it left the road and overturned several times.
- A Soldier was killed when his vehicle struck the concrete base of an interstate overpass.
- A Soldier lost control of his vehicle on post, collided with oncoming traffic and then struck and killed a pedestrian.
- A Soldier died after she lost control of her vehicle, crossed an interstate median and struck a tractor-trailer. The Soldier, who was unbelted, was ejected into the median.
- A Soldier was riding as the front-seat passenger in a vehicle when the driver lost control, went off the road and struck a tree. The Soldier was killed on impact, and the driver later died of her injuries. Both were wearing seat belts.
- A Soldier was killed when he lost control of his vehicle while driving in wet conditions on a winding road.
- A Soldier was killed when his speeding vehicle crossed the centerline just before an intersection and struck a tree. The Soldier was not wearing a seat belt.
- A Soldier was killed when the vehicle he was riding in went off the road and into a ditch and then struck two telephone poles.

CLASS C

- A Soldier was injured when his pickup slid off the road and into a snow bank.
- A Soldier was injured when his vehicle was struck at an intersection by a driver who had ignored a stop sign.
- A Soldier was injured when she swerved off the road to miss a deer, struck the curb and went into the woods.

LOSSES POV/POM — FISCAL 2012 Class A/Fatalities thru February 2012

CAR	14/14
SUV/JEEP	6/6
TRUCK	2/2
MOTORCYCLE	13/12
PEDESTRIAN	1/1
OTHER* (*Includes vans, ATVs, snowmobiles and bicycles)	1/1
TOTAL	37/36

as of Mar. 6, 2012 — Fiscal Year 2011: 30 — Three Year Average: 35

POM

CLASS A

- A Soldier was killed when he veered into oncoming traffic and struck a tractor-trailer.

CORRECTION

In the article "To Make a Difference" in our February issue, a Soldier killed in a motorcycle accident was listed as assigned to the wrong unit. At the time of his death, the Soldier was assigned to C Troop, 38th Cavalry Regiment.

IS THE SAFETY ON?

The Range & Weapons Safety Toolbox contains information, tools and links related to the safe handling of military and privately owned weapons.

RANGE & WEAPONS SAFETY TOOLBOX

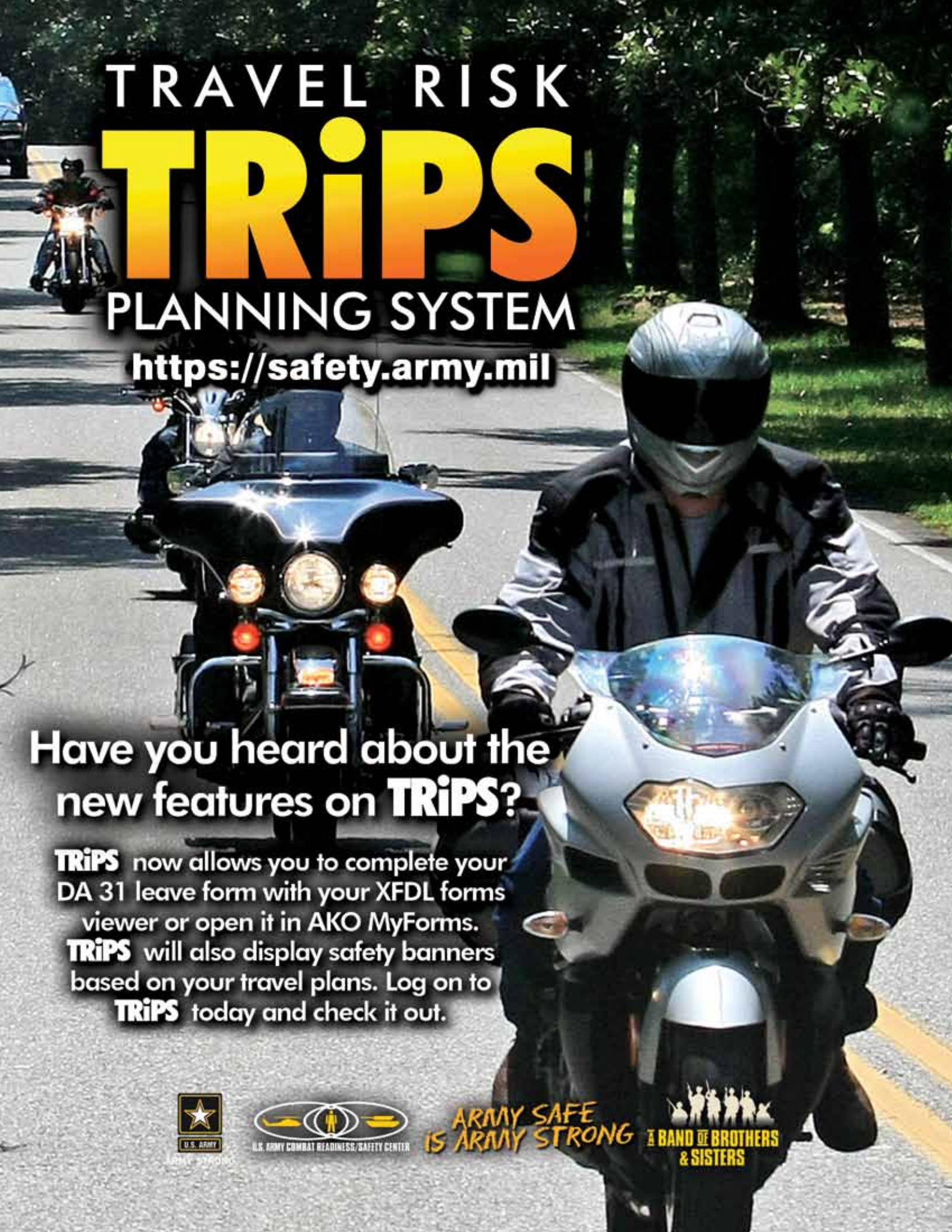
https://safety.army.mil/rangeweaponssafety

ARMY STRONG

U.S. ARMY COMBAT READINESS/SAFETY CENTER
https://safety.army.mil

ARMY SAFE IS ARMY STRONG

A BAND OF BROTHERS & SISTERS


TRAVEL RISK
TRiPS
PLANNING SYSTEM
https://safety.army.mil
Have you heard about the new features on TRiPS?
TRiPS now allows you to complete your DA 31 leave form with your XFDL forms viewer or open it in AKO MyForms. TRiPS will also display safety banners based on your travel plans. Log on to TRiPS today and check it out.
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ARMY STRONG
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AVIATOR PROFICIENCY: KEEP THE EDGE SHARP

KNOWLEDGE

VOL 6 MAY 2012

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

MOTORCYCLE SAFETY

WHY WE GET IT WRONG

- AIRCRAFT LOGBOOKS
- ELECTRICAL HAZARDS
- LANE SPLITTING

WEAPONS HANDLING

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SCAN HERE FOR KNOWLEDGE ONLINE

SOLDIERS LEADERS CIVILIANS FAMILIES

Take 5 for Motorcycle Safety Awareness Month

May is Motorcycle Safety Awareness Month, a time for drivers to focus on sharing the road and riders to focus on riding responsibly and obeying all traffic laws. Drivers need to take the time to check their mirrors for motorcycles before turning or making lane changes. Riders can do their part by avoiding a vehicle's blind spots, positioning themselves in the lane so they will be most visible to other drivers and wearing the protective gear designed to reduce injuries in a crash. Regardless if you're a driver or rider, keeping the highway safe is everyone's responsibility.

Take 5 ... then take action.

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LEADERS SOLDIERS CIVILIANS FAMILIES

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Mission statement: The United States Army Combat Readiness/Safety Center (USACR/Safety Center) supports our Army by collecting, analyzing and communicating actionable information to assist Leaders, Soldiers, Families and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please email comments to **safe.knowledge@conus.army.mil**.

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Knowledge provides a forum for Soldiers, Leaders and safety professionals to share best practices and lessons learned and maintain safety awareness. The views expressed in these articles are those of the author and do not necessarily reflect the official policy or position of the U.S. Army, Department of Defense or the U.S. Government. Contents are specifically for accident prevention purposes only. Photos and artwork are representative and do not necessarily show the people or equipment discussed. Reference to commercial products does not imply Army endorsement. Unless otherwise stated, material in this magazine may be reprinted without permission; please credit the magazine and author.

FROM THE DASAF

"KNOWING WHICH **SOLDIERS** are at **RISK**, even those you'd **NEVER EXPECT** to be indisciplined off duty, is the **FIRST STEP** in preventing future **FATALITIES**."

SAFETY: A TOP PRIORITY TODAY, TOMORROW

These late days of spring are a wonderful time of year: Temperatures are hinting at the lazy days of summer just ahead, and Soldiers, Families and Civilians across the force are heading outdoors to soak up the sun. This could be considered the most wonderful season of all for many reasons, and by now we're all hearing the sirens' song of perfect weather beckoning us to hit the highway for beaches, parks and other leisurely destinations. And while our Army will observe two national safety campaigns this month, I ask you all to remember risk doesn't keep a calendar — safety should be a priority every minute of every day.

May is Motorcycle Safety Awareness Month, and I'm pleased to report that halfway through fiscal 2012, Army motorcycle fatalities were down from the same timeframe last year. That's great news on the surface, especially considering the mild winter that offered nearly year-round riding conditions for many Soldiers in the United States. Engagement, whether among Leaders and Soldiers or Soldiers and their peers, is working, and most riders are doing the right things to stay safe on the road. However, a closer look at our 10-year motorcycle trend shows this relative calm could be highly deceptive.

Since fiscal 2002, motorcycle fatalities have predictably risen every two to three years, followed by a dramatic decline and then an equally dramatic increase. Now, our most pressing question is how to keep fiscal 2012 from being just another lull in the storm. Sustaining our current progress through the end of September and into the next few fiscal years won't be easy, especially when more and more Soldiers will be bringing their bikes out of winter hibernation or purchasing new rides altogether. Training is obviously a very important part of the solution, and the Army has addressed the need for expanded, sequential motorcycle training through the Progressive Motorcycle Program. Yet, as in all aspects of safety, training by itself isn't enough. Engagement and standards enforcement specifically targeted to indiscipline are the most crucial elements of preventing future tragedies not only on motorcycles, but in all types of vehicles.

This issue of Knowledge contains several excellent articles on motorcycle safety, including "Indiscipline — Beyond Risk Acceptance," written by Lt. Col. Scott Wile of the Driving Directorate here at the USACR/Safety Center. I encourage you to carefully read this story and take Lt. Col. Wile's conclusions to heart. Risky behavior exists everywhere, but most alarmingly, it often exists just beneath the surface of day-to-day operations. Knowing which Soldiers are at risk, even those you'd never expect to be indisciplined off duty, is the first step in preventing future fatalities. Talk to your Soldiers, then talk to them some more so you'll be "in the know" regarding who's at risk within your formations.

While much of our attention and efforts should be focused on motorcycle safety, we can't do so at the expense of other issues. Although numbers have stabilized recently, sedans and other POVs were on the rise most of the first half of 2012. Since summer is historically the deadliest time of year for Soldiers in POVs, it's extremely important that you redouble your engagement efforts as we enter this season of long weekends and leisurely travel. Drowning also remains a top concern; we've already lost two Soldiers this fiscal year in water-related accidents. The annual Army Safe Spring/Summer campaign is currently underway, so I encourage you to check out our website at https://safety.army.mil for media tools specifically designed to target these and other critical seasonal hazards.

Finally, May was recently recognized as Electrical Safety Awareness Month by the Department of Defense. Electrical hazards are often unseen, and this program aims to educate Soldiers, Family members, Civilians and contractors on the hazards of electricity and the mitigation strategies that have proven effective in preventing injury and death. Visit our website often during the month for updates on this exciting new initiative.

Thank you all for everything you do for our Soldiers, Family members and Civilians. Play hard this summer, but remember to always play it safe!

Army Safe is Army Strong!

WILLIAM T. WOLF
Brigadier General, USA
Director of Army Safety

How Do You Shoot Yourself?

One day while watching ESPN, I saw a story about an NFL wide receiver that shot himself in the leg. I wondered how anyone in their right mind could put a bullet in their own leg. I never would have imagined that I'd soon find myself in a similar situation. But there I was, riding in the back of an ambulance en route to the hospital with a severe, self-inflicted gunshot wound to my left thigh.

CHIEF WARRANT OFFICER 2 CARL PORTER
Bravo Company, 1st Battalion, 501st Combat Aviation Brigade
Fort Bliss, Texas

Back in April 2011, I dropped off my two daughters at my aunt's house in Florida so she could watch them while I attended the Aviation Safety Officer and Warrant Officer Advanced courses at Fort Rucker, Ala. The drive from Baltimore, Md., to Florida wasn't bad, and I arrived in Tampa about 4 p.m. Once there, I prepared myself for my drive to Alabama later that night. I thought I did everything right to prep myself for the five-hour trip, such as eating a good dinner and taking a nap so I would have sufficient rest before I got behind the wheel. Little did I know I had already set up myself for failure before leaving Baltimore.

Anytime I'm home in Maryland, I keep a .45-caliber 1911 automatic Colt pistol in my car. I've owned the pistol for more than seven years and I'm licensed to carry it in several states. I've also trained on a variety of other weapons, from the 30 mm cannon used on the AH-64D Apache Longbow all the way down to a .22-caliber rifle, so no big deal, right? The pistol was still in the car when I rolled into Florida.

I awoke at 11:30 p.m., loaded the car and prepared to leave. I decided to put my pistol away since I was no longer in Baltimore. While sitting in the driver seat of my car, I removed my weapon from between the seat and center console. I placed my thumb on the hammer and proceeded to ride the hammer forward when, suddenly, I sent a .45-caliber hollow point bullet into my thigh!

I'd put my weapon in a non-firing configuration like that numerous times before and it never went off. What was different this time? It could have been many factors, but at that particular moment, I wasn't thinking about woulda-coulda-shoulda. The bullet went into my leg, shattered my femur and stopped. In shock, I convinced myself I hadn't just shot myself. I placed the weapon on the seat, put my car in drive and proceeded to drive to Alabama.

After about two minutes, I finally came back to reality and comprehended what just happened. My leg started burning. It felt like someone had dumped gasoline on it and set it on fire. I turned the car around and headed back to my aunt's house. Once there, I walked to the door and told my aunt about my accident. She called the authorities and medical personnel, and I was taken to the hospital.

Amazingly, my car wasn't damaged and there wasn't a drop of blood anywhere. Now that time has passed, I can reflect on the incident and consider what I should've done differently. For starters, I shouldn't have chambered a round or, if I did, I should've done so properly and not ridden the hammer forward in an attempt to clear the weapon. I also should have stored my pistol out of reach from my daughters. Although I've taught them everything there is to know about weapons, sometimes curiosity can get the best of kids.

There's nothing I can do about my accident now. However, I hope my mistake will make others think twice about their decisions when it comes to handling privately owned weapons.

DID YOU KNOW?

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

THINK

Treat every weapon as if it's loaded.
Handle every weapon with care.
Identify the target before you fire.
Never point the muzzle at anything you don't intend to shoot.
Keep the weapon on safe and your finger off the trigger until you intend to fire.

STAY AWARE TO STAY ALIVE

STEVE KURTIAK
Driving Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

May is Motorcycle Safety Awareness Month, a good time to reflect on how the responsibility to ride safely rests on the shoulders of the rider. There are those in the motorcycle world who refer to the rider as a pilot. Others, however, might describe a rider as the "loose nut behind the handlebars" or other monikers not suited for print. If you, as a rider, are not in the rider/pilot group, you are not only bringing discredit to yourself, but to the rest of us who ride motorcycles safely. Riding a motorcycle is, of itself, not inherently dangerous. What is dangerous is riding unsafely, which leads to crashes and drives up injury and fatality rates. In many cases, riders are their own worst enemy.

Although the bulk of the responsibility rests on the rider's shoulders, there are others who are also responsible for a rider's safety. The distracted driver, the tailgater and every other driver of a motor vehicle also possess a responsibility for a rider's safety. Motorcycles have as much right to the roadway as any other vehicle. Drivers need to look out for us on the road and give us the room we need to maneuver.

Another riding season is upon us and with that comes the increased potential for needless injury and loss of life to Soldiers who ride motorcycles. As a fellow rider, I know we can reduce injuries and fatalities if we **RIDE SAFE** every time we operate a motorcycle, whether it is to and from work, on a weekend ride with friends or a solo trip to your favorite destination.

Ride within your capabilities on every ride and resist the temptation to crack the throttle open. For those of us who ride, this can be a difficult temptation to resist, especially if there is an open stretch of road without traffic. We all know that it's not the right thing to do but, unfortunately, many will not be able to resist. Find a reputable advanced motorcycling course and enroll. You will find out more about your capabilities (and shortcomings) in one day than in years of discovery learning. There are many schools available. And while the cost may seem steep at first, compared to the cost of replacement parts for your bike, raised insurance rates, other associated fines and the increased potential for injury or death, you'll find that a track day is much cheaper.

Identify potential hazards using the RiderRadar method you learned in the Basic *RiderCourse*. Use the 2-, 4- and 12-second scan technique. Establish a 2-second following distance, 4-second immediate path and 12-second anticipated path. To refresh your memory of this method, review the BRC book you received when you completed the training. Identifying a hazard is not limited to only those we personally encounter on the road. If you know someone who is riding untrained and without a license, you need to intervene. If you are operating a

> "**RIDE** within your **CAPABILITIES** on every ride and **RESIST** the temptation to **CRACK THE THROTTLE OPEN.**"

motorcycle without the training required by Army Regulation 385-10, you may be subject to any punitive options available to your commander.

Decide on a proactive course of action for the common hazards you encounter. As riders gain experience, they typically perform this mental task so often it becomes second nature. This includes scanning the road surface for potholes, tar snakes, loose dirt and gravel. Also, check the weather and treat each road intersection as if it were an "ambush zone," developing a course of action for each. Constantly evaluating potential hazards and having a course of action ready means it'll take less time to execute and you'll greatly reduce your potential of being involved in an accident.

Evade the hazards you encounter. This can be as simple as slowing down prior to entering the ambush zone mentioned earlier. Slowing down to avoid being ambushed can keep you from having to make it up as you go or rely on rusty skills to get you out of a potentially deadly situation. The Army trains you not to enter an ambush zone or, if you find yourself in one, how to get out! The thinking behind those combat skills translates well to the highway.

Street smarts will save your life by helping you make disciplined decisions to keep you from putting yourself into dangerous situations. Resist the urge to crack the throttle open or ride when you are fatigued or angry, and don't make the stupid choice to ride after consuming alcohol. You must be mentally engaged at all times when riding a motorcycle, and consuming alcohol slows response time.

Lane positioning is also critical, place yourself in traffic so that you're easily seen and separate your motorcycle from other vehicles. You will see emerging traffic problems more quickly and clearly and have more time and space to respond.

Always wear protective gear on every ride, even if it is just down to the corner to put gas in your bike. The helmet is the most important component of protective gear and it must meet Department of Transportation standards. Full-face helmets provide the most protection, and the rest of your gear should also be specifically designed for motorcycle riding.

Frequent skill improvement is now mandatory per AR 385-10, but it is also a good idea to complete on your own. Good riders know when they need to brush up on their skills because riding skills perish if not refreshed. Practice with your fellow riders and consider attending a track day event.

Enjoy the ride! The recent changes to AR 385-10 aren't intended to make it more difficult for Soldiers to ride motorcycles, but to make it safer so they can enjoy riding for many years to come. If you see a fellow rider struggling, provide mentorship. If you have questions, ask. As riders, it's up to us to be responsible for our conduct and that of other riders if we're to protect our riding privileges. RIDE SAFE!

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AIRCRAFT LOGBOOK REVIEW

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The aircraft logbook (NSN 7510-00-889-3494) is one of the most important pieces of equipment an aircrew will inspect during a preflight. Aviators are responsible to ensure all sections of the logbook are filled in, checked for accuracy and completeness, and the applicable forms are dated. This review is the last informal step in the quality assurance/quality control process.

In the fixed-wing community, we rely on civilian contract maintenance. While one contractor may cover the aircraft, a second contractor may cover selected "back-end" equipment, such as in the case of Special Electronic Mission Aircraft. The majority of contractors choose to use the Army's maintenance process as governed by DA PAM 738-751.

The bulk of contract maintenance personnel do an outstanding job, but they are human and can — like all of us — make mistakes or unintentionally fail to track, report or update a maintenance inspection status. Some subcontractors completing aircraft modifications, corrosion inspections or depot-level repairs/inspections also may not be familiar with the Army's procedures, documentations and maintenance requirements.

My story relates to a mission where I was tasked to pick up an aircraft and return it to my home station. My expectation, as well as most crews picking up a new aircraft, was the aircraft would be test flown, all discrepancies completed and logbook and historical data scrubbed and ready for pickup before crews were sent from home station. On this occasion, I arrived as the aircraft was just released by the contractor directly to my care. I started reviewing the logbook and things just did not look right. As I was reading DA Forms 2408-13/-13-1/-13-2/-18, they did not reflect the true status of the aircraft or the visible faults I saw. I compared the logbook against the aircraft and noticed the right engine cowling and avionics bay door had been removed. However, there weren't any write-ups on DA Form 2408-13-1 or -13-2 documenting the work. Right away, I knew I was in for a long wait.

As my day progressed, I moved to the maintenance office and noticed a dry-erase board. This board had a list of faults for my aircraft. Some of the faults were crossed-out, but most were not. I started looking in my logbook to see if the crossed-out faults had been documented or addressed. I was shocked to discover they weren't listed on any of my aircraft maintenance forms. I discussed this matter with the contractor's technicians. I found out documentation by dry-erase board was a normal practice in the civilian world. I continued to work my way through the flight pack entries and found numerous red "X" entries that were signed off incorrectly. I also identified procedures that were completed on my aircraft that were never documented. I reviewed DA Form 2408-14-1 and saw the faults that were completed were never transferred to DA Form 2408-13-1 to be signed off. When I reached DA Form 2408-18, I hit a stopping point; more than five inspection items were never completed and the aircraft had already been overflown (flown beyond the number of hours allowed before receiving scheduled maintenance).

I knew then I wasn't leaving this contract maintenance facility with my aircraft anytime soon and decided to dive into the aircraft historical logbook. I do not have an official Army maintenance background and this review seemed daunting; but after my maintenance review, I found it to be necessary.

For two weeks, I stayed at the contract maintenance facility, working to correct the logbook, flight packs and historical logbook before I was recalled to my unit. Back at my home station, I continued to monitor the maintenance status of this aircraft and found out it would not be ready for another six weeks.

Civilian contract maintenance technicians are very professional and good at what they do. However, they probably haven't experienced the copious amount of forms and recordkeeping the Army uses. I did not know everything, but I used my experience as a pilot to ask the right questions so the experts could find the right answers. Without well-trained quality assurance personnel, pilots must take responsibility for diving into the logbook(s) and flight packs to make sure the aircraft is ready and safe to fly. And that's not just when picking up an aircraft from depot maintenance, but every time they plan to fly. The rule is simple: Never fly an aircraft when you're not 100 percent comfortable about the maintenance it has received.

WHERE THE RAIL MEETS THE ROAD

HOWARD J. MAYHEW
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Will you be crossing a railroad track today? If so, your life could be in danger.

There are thousands of railroad crossings dotting the more than 160,000 miles of track in the U.S. If you encounter a train inside a railroad crossing, the train will always win. A locomotive alone weighs 200 or more tons, and that's not counting the freight cars attached. To make a comparison, a freight train hitting your vehicle is like your car hitting a soda can with one big difference — you're inside!

Think this is a rare occurrence? Think again. Every three hours, a person or vehicle is struck by a train. For example, in 2010, more than 800 people were injured and 260 were killed in 2,004 railroad crossing accidents. More often than not, these collisions occurred when drivers maneuvered around the gates at activated railroad crossings, not realizing an approaching train was less than 20 seconds away.

Fortunately, you don't have to join that statistics column. Here are some simple tips to keep motorists safe where the rail meets the road:

- Trains and cars don't mix. Never race a train to the crossing; even if you tie, you lose.
- Flashing red lights indicate a train is approaching from either direction. You can be fined for failure to obey these signals. Never walk around or behind lowered gates at a crossing, and do not cross the tracks until the lights have stopped flashing and it's safe to do so.
- The train you see is closer and moving faster than you think. If you see a train approaching, wait for it to go by before you proceed across the tracks.
- Be aware that trains cannot stop quickly. Even if the locomotive engineer sees you, a freight train moving at 55 mph can take a mile or more to stop once the emergency brakes are applied. That's the equivalent of 18 football fields.
- Never drive around lowered gates; it's illegal and deadly. If you suspect a signal is malfunctioning, call the 1-800 number posted on or near the crossing signal or your local law enforcement agency.
- Don't get trapped on the tracks. Proceed through a highway rail guard crossing only if you are sure you can completely clear the crossing without stopping. Remember, the train is 3 feet wider than the tracks on both sides.
- If your vehicle ever stalls on a track with a train coming, get out immediately and move quickly away from the tracks and back toward the direction from which the train is coming. If you run in the same direction the train is traveling, when it hits your car, you could be injured by flying debris. Call your local law enforcement agency for assistance.
- At a multiple track crossing waiting for a train to pass, watch out for a second train on the other tracks. That train could be approaching from either direction.
- When you need to cross train tracks, go to a designated crossing, look both ways and cross the tracks quickly without stopping. Remember it isn't safe to stop closer than 15 feet from a rail.
- Always expect a train. Freight trains do not follow set schedules.

Rail safety is for everyone, not just drivers. Pedestrians and others who choose to walk or play around railroad tracks are at extreme risk of being struck by a train. When I was a child, I used to put coins on the tracks and watch the train flatten them. If I only knew what I know now. Trains do not make the loud "click, clack" noise as in the past. Modern-day trains are much quieter.

Trespassers who are hit by trains are usually involved in other activities such as riding all-terrain vehicles or motocross bikes, walking down the center of the track while wearing headphones or conducting physical training.

Earlier this year, a Soldier was killed and his wife critically injured when they were struck by a commuter train as they walked on the tracks over a railroad trestle. Pedestrians should keep the following tips in mind when near railroad tracks:

- Railroad tracks, trestles, yards and equipment are private property. If you are in a rail yard uninvited by a railroad official, you are trespassing and subject to criminal prosecution. You could be accidentally injured or killed in a busy rail yard.
- Trains overhang the tracks by at least 3 feet in both directions and loose straps hanging from rail cars may extend even farther. If you are in the right-of-way next to the tracks, you can be hit by the train.
- Do not hunt, fish or bungee jump from railroad trestles. There is only enough clearance on the tracks for a train to pass. Trestles are not meant to be sidewalks or pedestrian bridges. Never walk, run, cycle or operate ATVs on railroad tracks, rights-of-way or through tunnels.
- Do not attempt to hop aboard railroad equipment at any time. A slip of the foot can cost you a limb or your life.
- Be aware trains do not follow set schedules. Any time is train time!

OPERATION LIFESAVER

True-life stories can communicate safety principles with much greater impact than any lecture. To read about a young man who tempted fate on the tracks, go online to Operation Lifesaver at www.oli.org and click on "Shawn Potter's Story." You'll also find other helpful tools such as posters, videos and PSAs to emphasize the importance of safety around railroad tracks and crossings.

CONVOY VIGILANCE

JOHN HANSON, COL. MARK DRAKE AND LT. COL. TIM HANSEN
1st Theater Sustainment Command
Camp Arifjan, Kuwait

In the early morning hours of Dec. 18, 2011, the last U.S. convoys rolled across the desert border at Khabari Crossing, Kuwait, and closed the final chapter of the war in Iraq. The 1st Theater Sustainment Command had not only accomplished the colossal task of withdrawal within two months, but, most importantly, did it with neither loss of life nor serious injury. News camera crews and photographers, perched atop flatbed trailers by the side of the highway, focused on the procession of trucks entering Kuwait to capture the momentous event. Though invisible to a high-definition camera, the 1st TSC safety program, the linchpin of this mission, had also triumphed in this hour by achieving thousands of hours of safe convoy driving through hostile territory.

Command Emphasis on Safety

The 1st TSC has a unique structure. It is a split-based unit with elements at Fort Bragg, N.C., and Camp Arifjan, Kuwait. In its deployed mode, 70 percent of its strength comes from National Guard and Reserve units.

Maj. Gen. Kenneth S. Dowd, commanding general of 1st TSC, demanded application of the Army's composite risk management matrix at every leadership level and accountability — from routine safety stand-down inspections to the smallest mishap in a motor pool. Dowd stressed his safety priorities through quarterly executive safety council meetings with unit commanders. In this forum, he reviewed safety training and safety metrics and had his commanders share their best practices with the team. Through frequent motor pool visits on Camp Arifjan, Dowd met with battalion, company and convoy commanders to discuss impending missions and reinforced the fundamentals of convoy safety: spacing, speed, rollover procedures and safety restraints. Command teams also discussed actions to take in facing an armed enemy on the highways as well as the enemy of fatigue. Convoy commanders were authorized to decide on unscheduled rest overnight stops, or RONs, for the welfare and safety of their drivers. Throughout the 1st TSC, Leaders lead by example to reduce accidental injury or death among Soldiers, Army Civilians and Department of Defense contractors.

Safety on the Battlefield

In maximizing the awareness and practice of safety, the safety director was authorized to go into every motor pool, convoy brief and stockyard to check and enforce safety standards. The 1st TSC safety team was constantly meeting with commanders, first sergeants and convoy crews in orderly rooms, dining facilities and motor pools to put the word out on the latest in best driving and road practices while also gathering lessons learned from returning convoys. The safety director's days never seemed to stop as he and his team collected and analyzed threat-based and accidental hazard-based vulnerabilities of convoys and related operations to determine risk. Acting on his latest findings, the safety director implemented and enforced appropriate control measures. Feedback from drivers was priceless, and their comments enabled the safety team to advise the commander and his staff with accurate composite risk assessments and countermeasures.

Mission First, Soldiers Always

In the final 58-day stretch to

1ST TSC COMMANDING GENERAL'S TOP FIVE SAFETY PRIORITIES

1. Conduct quarterly safety meetings. Commander must brief program and lessons learned. Open discussion and forum. Contractors must participate.
2. Must conduct safety stand-downs once units arrive and prior to redeployment.
3. Safety team must be an enabler, not just a recorder of safety accidents and issues. Empower them.
4. Commander must discuss data and trends in command and staff sessions. Use your G-2 for threat analysis and trends.
5. Live and breathe your safety program, don't just talk it. Believe in the safety system and forecast upcoming trends.

complete the withdrawal from Iraq, convoys were coming and going around the clock. Every member of the 1st TSC team felt the weight of the increased operational tempo, yet everyone, from mechanics to chaplains, hunkered down and took ownership of this mission. Dowd regularly checked with his commanders on unit morale and personally encouraged Soldiers to take advantage of the resiliency centers at Camps Arifjan and Virginia when time allowed. Rest was a valued commodity, and Soldiers made good use of the facilities at these centers.

Safety at the Unit Level

The line-haul companies were the chief concern during the last two months of 2011. Their muscle and determination made the withdrawal a resounding success. In talking to the officers, NCOs and Soldiers of those units, Dowd found an enduring attitude toward safety that all units should emulate. First Lt. Linden Allen, executive officer of the 1644th Transportation Company of the Illinois Army National Guard, spoke for all when he expressed his company's regard for safety.

"We apply safety to everything we do," Allen said. "It starts with an intensive drivers' training and selection program and continues with safety briefs and inspections before every leg of a mission and regular safety stand-downs."

Allen added that CRM played a big role in the company's mission-planning process.

"The CRM process is used to its fullest extent to mitigate the risk of injury, and our Leaders, from company commander to our enlisted truck commanders, are tasked with supervising safety," he said.

"The Rest of the Story"

During those intense days of convoys traveling into and out of Iraq, the 1st TSC's low accident rate didn't meet even the minimum cost threshold of an Army Class D accident. According to AR 385-10, a Class D accident results in a non-fatal injury and with the total cost of property damage amounting to greater than $2,000 but less than $50,000. In fact, most of the injuries and mishaps sustained during this time occurred during off-duty activities such as team sports. Incredibly, a Soldier's foot injury was the most serious accident recorded during the withdrawal.

The Role of Safety in History

The 1st TSC safety program played a critical role in the execution of the massive withdrawal of troops and equipment from Iraq. Pushing troops and equipment to the limits of their endurance required a deep appreciation and understanding of safety measures of both commander and Soldier. Under such rigorous conditions, commanders must always be vigilant of their Soldiers' welfare and well-being.

When the withdrawal was completed Dec. 18 — nearly two weeks before President Barack Obama's Dec. 31 deadline — the 1st TSC had conducted 481 convoys, totaling 11 million miles across rough and unforgiving terrain. This final sum of miles traveled is equal to circling the globe at the equator 442 times. In the end, these drivers had transported 32,000 containers, 19,000 vehicles and 86,000 service members.

The challenge of this retrograde required the 1st TSC to travel greater distances, at faster speeds and with fewer trucks than the Red Ball Express during World War II. This accomplishment proves effective leadership, committed troops, a culture of safety and a clear mission can result in moving mountains.

FACT: Army motor and combat vehicle accidents are the single greatest cause of on-duty accidental ground fatalities among our Soldiers.

Get the tools before the road gets rough.

Driver's Training Toolbox

https://safety.army.mil/drivertrainingtoolbox/

U.S. ARMY
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ARMY SAFE IS ARMY STRONG
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TREACHEROUS TRAILS

KIMBERLIE HUGHES
Bassett Army Community Hospital
Fort Wainwright, Alaska

Like most people, I grew up riding bicycles. As the years passed, my use of bikes progressed from fun to a mode of transportation. I covered many miles on two wheels during my college years. Shortly after moving to Italy with my husband, I took up the hobby of mountain biking.

While I've always been safety conscious and prepared, mountain biking and the unfamiliar equipment required an adjustment period. Wearing a helmet was always a given for me while riding, but one summer, I was introduced to clipless pedals — the type that are clipped to the shoe. The clip/shoe bond is so strong that it's been said the Jaws of Life are frequently used to free unfortunate soles (pun intended).

We traveled to a few races in Germany, where I placed first in my age division. After winning, I became confident in my abilities. I thought I could navigate any terrain on my bike; after all, winning first place means you are invincible, right?

Typical weekends for my husband and me were to meet friends in a village and ride on Italian mountain trails. One Saturday morning, we decided to take on a tougher trail. I hadn't negotiated this trail before, but our friends had navigated it many times. It was steep and full of washouts and ruts, but the main challenge was it was inundated with exposed tree roots, hence its nickname — the Root Down Trail.

Not knowing the trail, I fell behind the others. They constantly waited on me at junctions to ensure I remained on the right trail. It didn't take long until I began to feel as though I was a burden and ruining their ride. After catching up for the third or fourth time, I decided I needed to step it up and throw caution to the wind since I seemed to be slowing the group. With that burden lifted, I began taking more risks and, in turn, began having many close calls.

Even with the risks I was taking, I remained behind, so I upped the tempo even more. As I came down the last root-covered bit of trail, I thought our meeting place was just around the corner. It was the perfect place to gain speed, giving me the opportunity to catch up. The trees passed by in a blur as I flew down the foot-wide trail. Then, in cinema-like slow motion, the next few moments seemed to last forever as I began flying over my handlebars! Being clipped into my pedals, I couldn't get out, so I tucked my head and rolled as I hit the ground. I landed on my back with my feet still firmly locked to the pedals, which were still attached to the bike, which was now tires-side up.

After the initial shock, I began to laugh as I thought to myself that I could have won the $10,000 prize on America's Funniest Home Videos. Slowly, I unclipped my feet, stood up and inspected my bike. Everything seemed to be in working order, so I continued on my way — a little wiser and a lot more bruised. No more than 100 yards around the corner was the rest of the group. Pretending that nothing happened, we continued with the rest of the ride.

> "I could have **EASILY SMASHED** into a **TREE OR STUMP**, broken a bone or even **WORSE**. Thank goodness I was **WEARING MY HELMET.**"

In hindsight, I think of how lucky I am nothing serious happened to me that day. I could have easily smashed into a tree or stump, broken a bone or even worse. Thank goodness I was wearing my helmet. After being successful in several races, it was easy to become overconfident in my abilities. I made the mistake of trying to keep up with the rest of the group even though their skills surpassed mine. Having fun and enjoying the hobbies you like doesn't have to become a competition with others or with yourself. I had the preconceived idea in my head that I was ruining our friends' ride when, in all actuality, they were thankful for the breaks and the chance to chat about how awesome the trail was.

My advice is to get out there and have fun, but stay within your comfort zone and limitations. Competition and self-challenges are good, but all in moderation. The old adage of "walk before you run" is very applicable to safety in daily life.

Every year, aviators strive to make the most out of their allocated flying hours. Over the last 10 years, the increased mission requirements brought on by numerous deployments and related training has led to a proficient, well-trained and motivated pool of Army aviators. We have personnel who are well versed in environments from extreme heat and cold to high altitudes and severe dust. Because of standardized training and the hundreds of hours they've spent in the air, our aviators have developed a high level of proficiency.

Keep the Edge Sharp

CHIEF WARRANT OFFICER 4 MIKE ZINSKI
C Company, 204th Military Intelligence Battalion
Fort Bliss, Texas

> "The **GOAL** of **ALL** aviators and units is to **MAINTAIN MISSION READINESS** and the proficiency to accomplish their wartime **MISSIONS SUCCESSFULLY.**"

In the upcoming years, however, this situation will be subject to drastic change. Operations in Iraq have already drawn down extensively, and there is an imminent end to operations there already on the horizon. While we have significantly increased our presence in Afghanistan over the years to support operations, that theater, too, will begin to see reductions in requirements and, as a result, a reduction in assets in theater. Coupled with predicted deployment reductions, these missions will also become shorter in duration. As a direct result of this, aviators will fly fewer hours in theater performing missions. Lastly, as with all post-war periods, there is the looming threat of force and budget reductions, which could mean fewer units and training opportunities and reduced budgets for flying hour programs.

Because aviators may find themselves struggling to fly the minimum hours required by their specific aircrew training manuals, they may have to rely on flight simulators as an alternative. Instead of flying 300 hours or more in their semi-annual periods, aviators may soon spend less than 100 hours in the air. This will dramatically reduce training hours, forcing aviators to struggle to meet their minimums in the new peacetime operations tempo. The overall effect on the aviation community may be reduced proficiency. While aviators will always ensure they meet minimum requirements, what must be considered is the effectiveness of those hours. All aviators must ensure the limited time they have is used to the greatest effect. Commanders and units must ensure they keep the training as mission focused as possible and held to the highest standards at all times.

With reduced hours, individuals must make the most of simulators and other non-aircraft training aids for tasks that do not require actually flying an aircraft. This will allow them, when they do have flight time, to focus on the mission. When flying training missions, crews must strive to keep that training as realistic and challenging as possible. Their current skills, developed and honed in combat theaters, will degrade over time and training new aviators will require many hours. This additional training, while necessary, will mean fewer allocated hours elsewhere in the flying hour program.

The goal of all aviators and units is to maintain mission readiness and the proficiency to accomplish their wartime missions successfully. Aviators at all levels, especially the commanders, standardization personnel and those developing the training plans, must find the best way to make use of the shrinking allocation of assets to accomplish training and ensure aviator readiness. Individual aviator skills can become dull when not exercised to the extent they were when deployed. Aviators must work to keep the edge sharp and ensure they make the best use of the assets they have.

At the end of the day, currency in an aircraft does not mean an individual is proficient. Meeting the standards set forth in training requirements is the base level of proficiency required in an airframe, not the end standard expected to employ the aircraft in its mission. The challenge for the future will be to ensure the force can maintain training and operational levels necessary for future operations while living in an environment of shrinking assets. People are familiar with the adage of "train to standard, not to time," and that applies here. Aviators need to train to the standard (proficiency and ability to perform their wartime mission) and not to time (minimum annual hours and iterations).

MOTORCYCLE SAFETY — WHY WE GET IT WRONG

"Watch out for Bikers," "Loud Pipes Save Lives" and other "be safe" riding campaigns get a lot of attention from motorcyclists. But when you look at the science, these campaigns approach the problem from the wrong side. Studies show the greatest improvements in motorcycle safety are gained through better riding skills and awareness.

WAYNE BUSCH
Reprinted by permission from Smokymountainrider.com

I recently spent as much time as I could stand reading through studies on motorcycle accidents from the early 70s through the mid-80s. The most notable of these was the Hurt Report (see info box on page 26), though there are also a couple of big ones from Europe. The results of these studies are consistent over time and irrespective of location with similar conclusions:

- The most common multiple-vehicle accident is caused by a car turning left in front of a motorcycle at an intersection — about two-thirds of multiple-vehicle accidents.
- The most common single-vehicle motorcycle accident is running wide in a turn and leaving the road or sliding out — about one-third of single-vehicle accidents.
- In about 40 percent of motorcycle accidents, one of the contributing or causative factors is the rider's inexperience or lack of skills to evade or avoid the accident.

All of these are best addressed by the motorcycle rider through increased awareness and better skills.

Those popular riding campaigns mentioned earlier in this article are not supported by the science. They may be popular, and it's easy to put the blame on cage (car) drivers, but it's an ineffective approach.

Size Matters

The studies go in great detail examining how visible motorcycles are on the road — color, frontal area, bright clothing, lights on/off, etc. While each of these things does increase visibility and have an impact, overall it's not significantly relevant. The bottom line is motorcycles are small compared to any other motor vehicle on the road. You can do things to be more visible, but don't count on it helping much.

What's that Noise?

We are primarily visual creatures. Biologically, we process and intake information visually. Auditory input is secondary. We listen to the radio or books on tape when driving because we know we process our driving information visually.

There are no scientific studies that examine whether loud pipes have any impact on driver awareness. The evidence is anecdotal or assumed — "I know my loud pipes kept that guy from moving into my lane." Not if he didn't see you. When it comes to the most dangerous situation for motorcycles — approaching an intersection — you can draw your own conclusions from a simple experiment. Next time you're sitting at an intersection, note when you hear an approaching motorcycle. It's long after you can see it. By the time the sound is loud enough to draw attention, it's too late. Whatever is going to happen has already started.

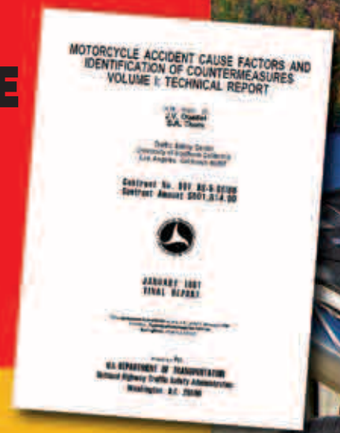
How to Ride Safer

Riding a motorcycle in traffic is like a mouse running through a herd of elephants. Be alert and ready to take quick evasive actions or you'll be crushed.

- **Always Ride Like You're Not Seen.** Expect the most common accident — a car pulling out in front of you. Intersections, side streets and anything that obstructs the view tells you to get ready to react. Develop that second sense and practice spotting these hazards.
- **Be Ready to React.** Ease off the throttle, get your hands ready to brake/clutch, get your feet off the highway pegs and down where you can get at the controls and position yourself to respond quickly.

CHECK OUT THE HURT REPORT

The Hurt Report is one of the most well-known studies on motorcycle safety. To read an online copy, go to http://isddc.dot.gov/OLPFiles/NHTSA/013695.pdf.


MOTORCYCLE ACCIDENT CAUSE FACTORS AND IDENTIFICATION OF COUNTERMEASURES
VOLUME I: TECHNICAL REPORT

- **React.** This is where most failures occur and where better skills make a significant statistical difference.

Once is Not Enough

Here's a typical example of how riders fail to respond properly to a situation. A car pulls in front of a bike and the rider jams on the rear brake. The bike either skids upright into the car or is laid down and slides uncontrolled along the ground. If you took a Motorcycle Safety Foundation course, you were exposed to how to brake and swerve. However, that happened in a parking lot at low speed with nothing to run into and with you totally focused on what you were doing. If that was the last time you practiced braking and avoidance, you are an accident waiting for an opportunity.

> "**COMMIT** to taking **MOTORCYCLE INSTRUCTION** to become a better and safer rider **RIGHT NOW.**"

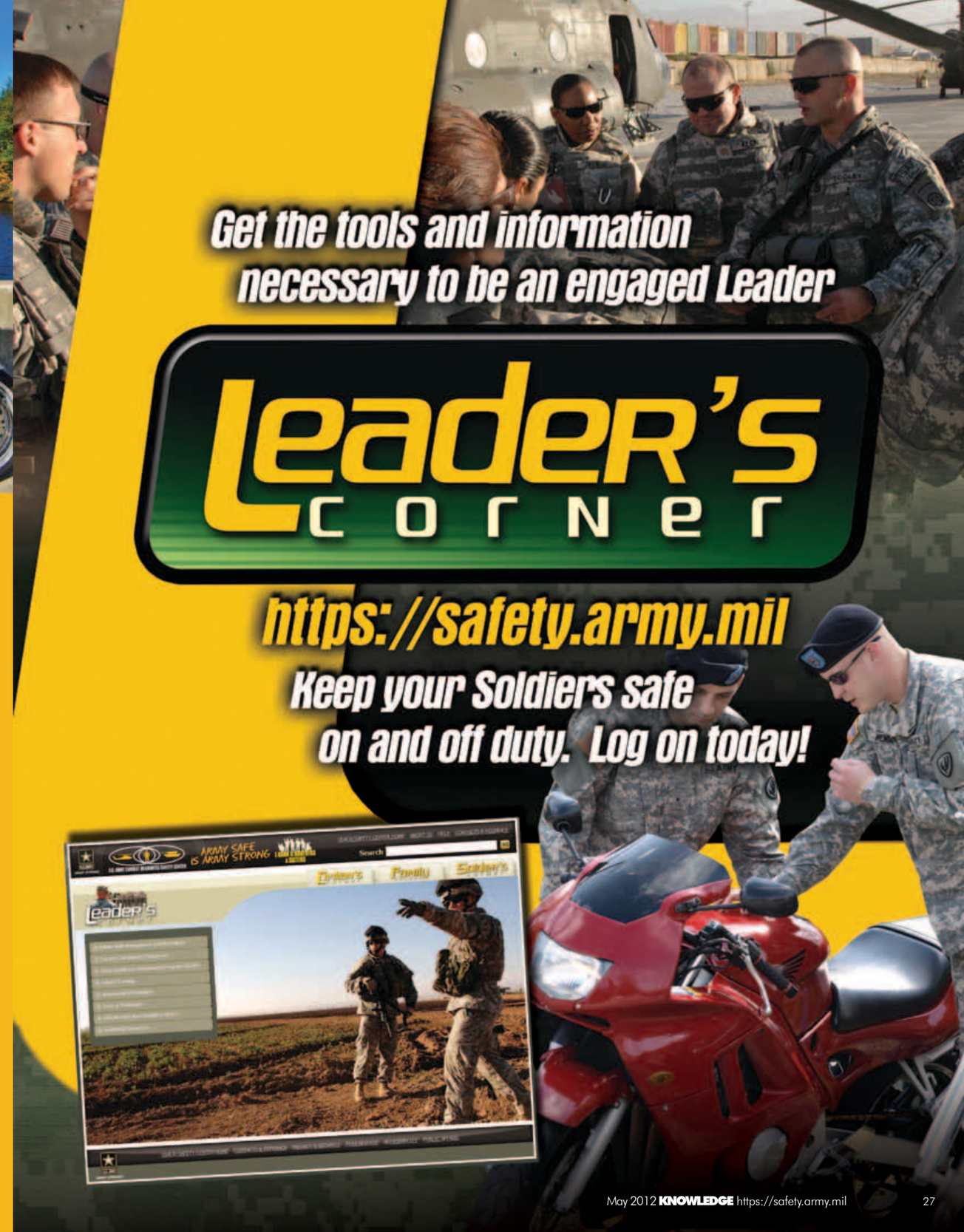
Motorcycle Safety — Getting it Right

The science shows improving motorcycle riders' skills is the most effective means of reducing accidents.

- **Up Your Skills with Practice.** I can't ever recall seeing anyone practicing motorcycle skills independently. One reason may be you need to find a secluded, safe location to do it so it happens out of sight. I have my own secret test track not far from home where I go to hone my skills on a regular basis; but then I'm a motorcycle instructor and demand a high level of personal performance so I can demonstrate skills well for my students. Honestly, without such a motivation, I rarely practiced riding skills on my own previously in any serious manner. We all know we could be better with focused practice, but riding time is so precious that it's tough to give up a fun ride for the rigors of working on skills and practicing technique. Let's face it; it's the rare motorcycle rider who ever does any independent practice.
- **No Pain, No Gain.** At least swap one type of pain for another. A little financial pain can save you a whole lot of potential physical pain, as well as the attendant monetary consequences that result from even a minor accident. Since we're unlikely to practice skills on our own, force yourself to do it. Pay for it and you'll be motivated to give up the time and get your money's worth.
- **Git-R-Done.** While there are plenty of things you can do to learn to be a safer rider — online sources, books, etc., or occasional practice on your own to improve skills — if you want to get the quickest, best and easiest results, find professional structured instruction. You'll accomplish more in less time and progress more quickly to being a better, safer rider.

Are You Going to be Safe this Summer?

Commit to taking motorcycle instruction to become a better and safer rider right now. Whether it's repeating a basic course you've already had or scheduling a track day to work on advanced skills, take action now and find an appropriate class for you. I know you want to ride as many miles as you can this year — we all do. Let's all be safer riders as well.



DON'T GET ZAPPED

JORGE REBOLLEDO
U.S. Army Medical Materiel Command
Fort Detrick, Md.

There are different types of energy: electrical, chemical, thermal, electromagnetic, electrochemical, nuclear, potential and kinetic. Electricity is the most used type of energy in the United States, not only in industrial and commercial settings, but also in our homes. The majority of our day-to-day common household activities require electricity. Due to its daily use, thousands of people unknowingly expose themselves to risk every time they use electricity. It's important we understand these risks and avoid them as much as possible.

The problem with electricity is it's invisible, odorless and silent. It can, however, be felt when touched. When certain levels of electricity run through a body, the consequences can be fatal. It doesn't discriminate either. Whether a person is short or tall, thin or obese, young or old, male or female — everyone is susceptible to electrical injuries.

The consequences may vary from a little fright to a burn — or even death by asphyxiation or heart failure. The seriousness of a shock depends on the amperage, duration of contact and resistance of the pathway through the body. For example, a small current passing through the heart is much more critical than a current passing between two fingers of the same hand.

So, how much electricity is fatal? People can feel electrical currents at levels as low as 1 milliamp, which produces a slight tingling sensation. Current levels above the 50 mA "let-go" threshold can cause loss of muscular control, irregular heart rhythm and, finally, cardiac arrest. That level of current is only a small fraction needed to power a 60-watt bulb, which draws about ½ amp, or 500 mA.

Electrical shock occurs when a person touches an electrically charged object and another surface capable of conducting electricity to ground at the same time. This allows the current to pass between the points of contact. Of note, damp skin is less resistant to current flow and permits greater shock effects.

The following are some safety tips and rules of thumb that will, if followed, help protect you and your loved ones from an electrical injury:

- Install ground fault circuit interrupter outlets in the kitchen, bathroom, garage and all other areas inside and outside your home that can

> "So, how **MUCH** electricity is **FATAL?**"

HOW ELECTRICAL CURRENT AFFECTS THE BODY

Current (Amps)	Human Reaction
0.001	Perception level. Just a faint tingle.
0.005	Slight shock felt; not painful but disturbing. Average individual can let go.
0.006-0.025 (Women)	Painful shock, muscular control lost.
0.009-0.030 (Men)	This is called the freezing current or "let-go" range.
0.050-0.150	Extreme pain, respiratory arrest, severe muscular contractions.
1-4.3	Ventricular fibrillation.
10	Cardiac arrest, severe burns and probable death.

Note: Some smaller microwave ovens use 10 amps (10,000 milliamps), and a common fluorescent light uses 1 amp (1,000 milliamps).

Editor's note: This chart is an excerpt from an Occupational Safety and Health Association electrical safety presentation. For more information, visit www.osha.gov.

get wet. GFCIs provide protection against common electrical accidents, which include shock or fire when water reaches an electrical current, faulty wiring, defective cords and other ground fault electrical risks.

- Many accidents occur because of the misuse of lamps and lighting fixtures. For instance, many people think that it's all right to use a 100-watt light bulb in a 60-watt light socket. They are unaware that this can heat up the fixture, melt its wires and lead to an electrical fire. The same risk applies when a cord is plugged into a female adapter outlet that is screwed into a light socket.
- Never touch an electrical appliance with wet hands or while standing in water.
- If you have small children, it's recommended you cover all electrical outlets with plug socket guards. They are cheap and easily obtainable. This will prevent children from placing unwanted things in outlets.
- Place lamps and appliance cords out of the reach of children, perhaps behind heavy furniture.
- Always check appliances and cables for damage.
- Do not use any electrical appliance that smokes, sparks, hums, gives off a burning smell or has a damaged cord.
- Always unplug an electrical device before cleaning it.
- Only buy and use electrical products that comply with the safety standards of testing groups like Underwriters Laboratories.
- Treat electricity with utmost respect. Follow the directions printed on the product's manual, as well as the small labels in appliances, fixtures, cords and other devices.

Remember, electricity can't be seen, and special equipment is required to detect its presence. When in doubt, call for a qualified electrician to replace or repair any outdated or defective electrical device. Be smart and don't get zapped!

DID YOU KNOW?

- **Underwriters Laboratories has been the trusted resource across the globe for product safety certification and compliance solutions since 1894.**
- **The UL mark on a product means UL has tested and evaluated representative samples of that product and determined they meet their standardized requirements.**
- **UL's worldwide family of companies and network of service providers includes 68 laboratory testing and certification facilities serving customers in 102 countries.**
- **The only way to determine if a product has been certified by UL is to look for the UL mark on the product itself.**
- **Adopted in 1993, the CE labeling program aims to standardize regulations across the European Union.**
- **The CE marking on a product is a manufacturer's declaration that the product complies with the essential requirements of the relevant European health, safety and environmental protection legislation.**
- **CE marking on a product indicates to governmental officials that the product may be legally placed on the market in their country.**
- **The letters "CE" are the abbreviation of the French phrase "Conformité Européene," which literally means "European Conformity."**

Editor's note: This chart was adapted from an Occupational Safety and Health Association electrical safety presentation. For more information, visit www.osha.gov.

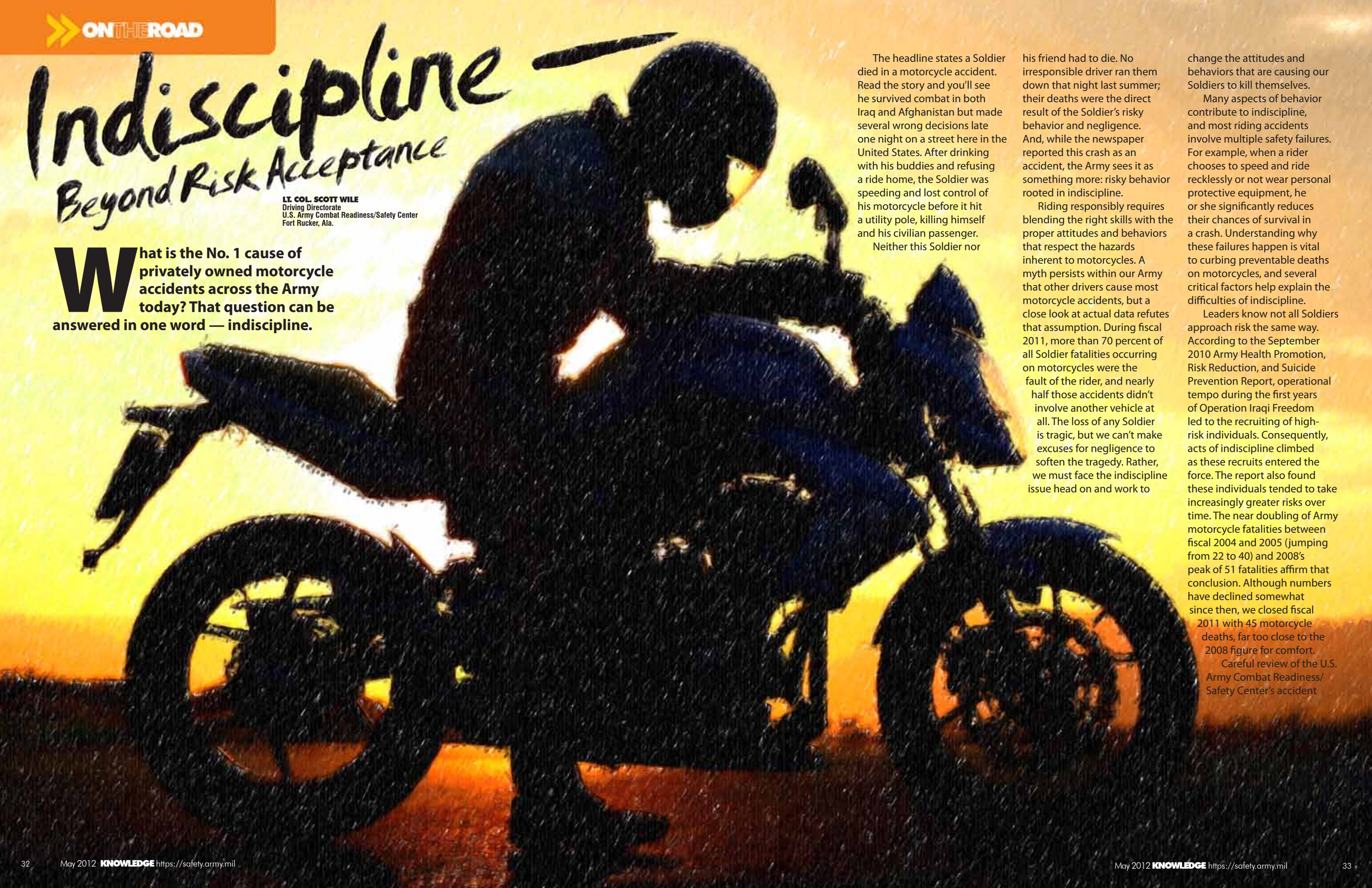
On the home front, a Soldier's "battle buddy" is often his or her Family. Check out the new Family Engagement Kit to learn how you can look out for the safety of your Soldier. The kit features a variety of tools, including videos, real-life stories, resources and tips to keep your Soldier safe.

Indiscipline

Beyond Risk Acceptance

LT. COL. SCOTT WILE
Driving Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

What is the No. 1 cause of privately owned motorcycle accidents across the Army today? That question can be answered in one word — indiscipline.



The headline states a Soldier died in a motorcycle accident. Read the story and you'll see he survived combat in both Iraq and Afghanistan but made several wrong decisions late one night on a street here in the United States. After drinking with his buddies and refusing a ride home, the Soldier was speeding and lost control of his motorcycle before it hit a utility pole, killing himself and his civilian passenger.

Neither this Soldier nor his friend had to die. No irresponsible driver ran them down that night last summer; their deaths were the direct result of the Soldier's risky behavior and negligence. And, while the newspaper reported this crash as an accident, the Army sees it as something more: risky behavior rooted in indiscipline.

Riding responsibly requires blending the right skills with the proper attitudes and behaviors that respect the hazards inherent to motorcycles. A myth persists within our Army that other drivers cause most motorcycle accidents, but a close look at actual data refutes that assumption. During fiscal 2011, more than 70 percent of all Soldier fatalities occurring on motorcycles were the fault of the rider, and nearly half those accidents didn't involve another vehicle at all. The loss of any Soldier is tragic, but we can't make excuses for negligence to soften the tragedy. Rather, we must face the indiscipline issue head on and work to change the attitudes and behaviors that are causing our Soldiers to kill themselves.

Many aspects of behavior contribute to indiscipline, and most riding accidents involve multiple safety failures. For example, when a rider chooses to speed and ride recklessly or not wear personal protective equipment, he or she significantly reduces their chances of survival in a crash. Understanding why these failures happen is vital to curbing preventable deaths on motorcycles, and several critical factors help explain the difficulties of indiscipline.

Leaders know not all Soldiers approach risk the same way. According to the September 2010 Army Health Promotion, Risk Reduction, and Suicide Prevention Report, operational tempo during the first years of Operation Iraqi Freedom led to the recruiting of high-risk individuals. Consequently, acts of indiscipline climbed as these recruits entered the force. The report also found these individuals tended to take increasingly greater risks over time. The near doubling of Army motorcycle fatalities between fiscal 2004 and 2005 (jumping from 22 to 40) and 2008's peak of 51 fatalities affirm that conclusion. Although numbers have declined somewhat since then, we closed fiscal 2011 with 45 motorcycle deaths, far too close to the 2008 figure for comfort.

Careful review of the U.S. Army Combat Readiness/Safety Center's accident

> "The **KEY** to **CURBING INDISCIPLINE** lies with **LEADERS** at all levels ..."

database reveals several interesting findings. Chief among these is that, contrary to popular belief, Soldiers who have recently redeployed from combat are no more prone to motorcycle accidents than their non-deployed peers. More accidents are resulting from indiscipline — speeding, drinking and riding, and a lack of PPE — than skill deficiencies caused by extended time off the road. In other words, Army motorcycle fatalities are unrelated to deployment or time away from home, and we should approach indiscipline as a systemic problem that transcends duty station or unit assignment.

Compounding the indiscipline problem is the type of motorcycle many Soldiers are choosing for their beginner bike. With incredible acceleration and top speeds nudging 200 mph, sport bikes have become the motorcycle of choice for many young, inexperienced Soldier riders. It used to be that riders started out on smaller bikes and gradually worked their way up the engine "cc" ladder, allowing them to progressively grow their skills and learn what worked to keep them safe. Today's trend is just the opposite: buy the biggest and fastest model you can afford and get trained later.

While some enthusiasts may feel sport bikes have been unfairly targeted, accident data show Soldiers riding these particular models are more than three times as likely to die in a crash as their peers on cruisers. A motorcycle is only as good as its rider, and the power and performance of the bikes most popular in our Army today simply outmatch many of their owners' riding skills.

What can be done?

To address indiscipline and establish lifelong learning among the Army's riding population, recent changes to Army Regulation 385-10, The Army Safety Program, mandate universal training through the Progressive Motorcycle Program. The PMP consists of four separate courses spaced at specific time intervals: the MSF Basic *RiderCourse*; Military SportBike *RiderCourse* or Experienced Riders Course; motorcycle refresher training; and sustainment training. Complementing that, the USACR/Safety Center Driving Directorate is currently working to expand the behavioral training curriculum currently offered as part of the BRC. The goal of these changes is to promote behavior change while motivating riders to continually manage their risk and operate their bikes according to their personal capabilities, as well as appropriate regulations and local laws.

Even with these needed refinements, however, training alone cannot fully solve the Army's current problems with motorcycles. The key to curbing indiscipline lies with Leaders at all levels engaging with their Soldiers on both the joys and hazards of riding, and Soldiers holding each other accountable for their behavior on the road. The real-world manifestation of engaged leadership and a positive riding culture is relatively simple: establishing a unit-level motorcycle mentorship program where experienced bikers guide novice riders as they build their skills and develop a safe riding style.

This is a concept Col. Kevin J. Christensen, commander, 110th Aviation Brigade, Fort Rucker, Ala., has taken to heart. Overseeing the Army's largest brigade — one filled with eager flight students, many of whom are riders — has allowed him to observe typical Soldier behaviors and consider the motivations behind them.

"First, I believe indiscipline — regardless of where or how it's manifested — is a key risk indicator for commanders to consider," he said. "While some might find it hard to make the connection between a traffic violation in a car or a non-judicial punishment resulting from an act of indiscipline and safe motorcycle riding, I think there's a connection. When Soldiers know what the chain of command expects of them and they still go out and ride recklessly, they're demonstrating a lack of judgment."

Christensen sees his brigade's MMP as a valuable tool for creating a responsible, safe riding environment.

"I think a good mentorship program establishes a self-policing environment," he said. "While the Army has made great strides with programs enhancing the knowledge and skills of our riders, it's left mostly to our mentors to uncover the underlying attitudes that can lead to risky (indisciplined) behavior."

He explained his goal is to modify rider behaviors in ways that will save lives, while encouraging mentors to share with unit leadership their concerns about high-risk Soldiers.

"For many Soldiers, safety briefings and the fear of consequences isn't sufficient to modify behavior," he said. "We have to get Soldiers to make the right decisions, even when the chain of command isn't watching them. In the cases where we can't modify behavior, we at least have to be aware of it and consider it as part of the risk management plan."

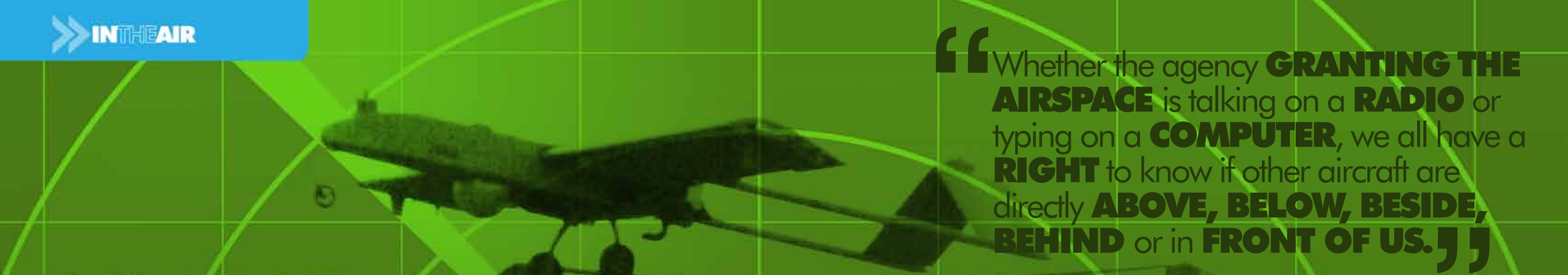
For more information on the MMP, visit https://safety.army.mil/mmp/.

RIDE FOR YOUR LIFE

The Motorcycle Mentorship Program establishes voluntary unit- or installation-level motorcycle associations where less experienced riders and seasoned riders can create a supportive environment of responsible motorcycle riding and enjoyment. This can create positive conduct and behavior and serve as a force multiplier that supports a commander's motorcycle accident prevention program.

Check out the USACR/Safety Center MMP website for some examples of active mentoring programs.

https://safety.army.mil/mmp/



WHO'S IN CONTROL?

CHIEF WARRANT OFFICER 3 CARL R. MILLER
2nd Brigade Combat Team, 4th Infantry Division
Fort Carson, Colo.

> "Whether the agency **GRANTING THE AIRSPACE** is talking on a **RADIO** or typing on a **COMPUTER**, we all have a **RIGHT** to know if other aircraft are directly **ABOVE, BELOW, BESIDE, BEHIND** or in **FRONT OF US.**"

The OPTEMPO had been heavy for our single Tactical Unmanned Aircraft System platoon site. I was the TUAS operations technician for the 2nd Stryker Calvary Regiment out of Vilseck, Germany. We were giving the troopers of my regiment 24 hours of continuous coverage. The attacks on the forward operating base and the troopers going out had slowed a great deal. Our TUASs were utilized not only as reconnaissance, surveillance and target acquisition assets, but also as a deterrent for enemy forces. I thought everything was going great, and we had our operations down pat. Little did I know!

I had just taken a combat shower and was lying in my bunk resting from a 16-hour day. Just after midnight, there was a knock on the door to my containerized housing unit. I opened it to see my platoon leader (captain) and platoon sergeant standing there with grim looks on their faces. I knew we hadn't crashed, but by the looks on their faces, I knew something had happened. They both stood there as if they were in trouble. Tired and knowing tomorrow was to be a direct reflection of today, I asked what was wrong.

The young, newly pinned captain proceeded to tell me the story. Only 30 minutes before their arrival, a young specialist, serving as a newly qualified mission commander, had gotten us some attention from the U.S. Air Force, and it wasn't the kind of recognition my troop or squadron commander was going to like. We had been the fine recipients of a hazardous air traffic report, or HATR. It gets better than just a report, though.

Somewhere about 11:30 p.m. the night before, the young specialist had the operators pre-position the unmanned aircraft for the next mission. He requested airspace for transitioning. He was cleared for his transition and given a whole keypad, or enough area to do the mission. The operators requested a lower altitude for the mission. A lower altitude meant better video for the ground commanders. However, this was a trade-off because engine noise could give away the aircraft's position, so the mission commander requested a new altitude. The controlling agency granted the request and told him to "elevator in place." The crew argued about what that meant, as they did not know. The mission commander instructed the crew to continue their transition across the keypad (since he was already cleared for it) and to descend to the new low altitude.

Not even three minutes into their descent, the mission commander's communications radio monitor went crazy. The controlling agency was lighting into him pretty good, saying he had busted airspace and had nearly caused a midair collision with a manned fixed-wing aircraft. The crew of that aircraft said they were going to do a HATR. The young specialist replied with, "LOL!!! What R U talking about? LOL!"

Lessons Learned

What the controlling agency had meant for the TUAS operators to do was to loiter and descend in place. Of course, this is not what happened. This was not a good thing, but no one was hurt and no equipment damaged, thankfully. The specialist was removed from mission commander duties, the whole crew was counseled and we got a safety stand down to go over some very important things we had forgotten. However, my Soldiers and I learned a few lessons that day, and I thought it best to share them with the whole aviation community.

1. The chat software being used is for official communications. It is not Yahoo! or MSN. Leaders should train their Soldiers to use proper messaging techniques with the software. In this case, the specialist thought they were joking around and calling him a "hater." Neither he nor any of the other crewmembers knew what a HATR was.
2. Crew coordination is an annual training topic and very important in the process of doing our jobs. Both Army Regulations 95-1 and 95-23 state crew coordination will be used through all aspects of the flight. There are no new accidents, so we should have the lessons learned for them. Whether we are manned or unmanned, there is no need to reinvent the wheel. If you are unsure of the terminology, then you need to ask someone. Every Soldier and piece of equipment we have is vital to winning the mission. If we are to lose either, then let it be because the enemy got lucky or were just better than us — not because we are too embarrassed or stubborn to ask.
3. Whether the agency granting the airspace is talking on a radio or typing on a computer, we all have a right to know if other aircraft are directly above, below, beside, behind or in front of us. The crew above got pictures of the aircraft because they always scan with a camera during their descent. However, air traffic control never conveyed to our crew or the manned crew that we were in the same airspace. This could have been a huge mishap with lives lost and equipment destroyed. Sadly, the armed forces have enough accidents that take the lives of our brave men and women. Let's not add to it by thinking that unmanned aircraft are just remote-controlled aircraft. I challenge all ATC units and Leaders to not treat these aircraft differently. The rules, regulations and standards are the same, so should the procedures in which the airspace is granted, disapproved and traffic advisories given.

The Pain of Lane Splitting

Last October, one of my closest friends, Cynthia, was involved in an accident while touring California on her motorcycle. She was accompanied by her husband and my good friend, Tim.

Cynthia was an experienced rider, and she and Tim enjoyed getting out on the weekends and taking trips on their bikes. On this particular trip, the two had taken a week off to travel from their home in northern New Mexico to California. As they rode on an interstate, Cynthia was "lane splitting" between a car and a pickup when the pickup suddenly changed lanes. Not seeing Cynthia, the driver of the pickup bumped her motorcycle, trapping her left leg between the truck and the bike. Cynthia was thrown off the bike and came to rest about 80 feet away in a field.

Cynthia was airlifted to the closest hospital, where she underwent surgery to save her life. The surgeries were successful; however, Cynthia, a beautiful immigrant from Germany, lost her left leg below the knee and suffered extensive cuts to her body that resulted in terrible scarring. Cynthia was in the intensive care unit for two weeks.

CHRISTOPHER S. RAINWATER, M.R.A.
358th Civil Affairs Brigade Safety
U.S. Army Reserve
Riverside, Calif.

Active and involved before the accident, Cynthia now found herself disabled. Her looks — she had been a model in Germany — were deeply affected by the injuries. It was uncertain if and when she could ever return to her career in New Mexico. In her eyes, life, as a result of the motorcycle accident, looked bleak.

I spoke with Cynthia and Tim on several occasions after the accident, and my wife and I happily tracked her improvement. She told me the crash was her fault. She knew lane splitting was dangerous and not allowed elsewhere, but she felt empowered by California's allowance of this dangerous practice. She thought she'd try it out.

Less than a month after the accident, I got an early morning call from Tim. He told me Cynthia had wheeled herself outside the previous night, watched the sun set over a New Mexico mesa and then took her own life. The physical agony she was enduring, the loss of her leg and the scarring were all too much for her. This incredibly lovely and bubbly woman, only 46 years old, was gone. Although what she'd done on her motorcycle may have been legal in California, it was anything but safe.

What is Lane Splitting?

California is unique in a number of ways. Its allowance of lane splitting, the term used to describe a motorcycle sharing your lane as they pass you (between you and another vehicle), has come under a lot of controversy.

While California does not specifically authorize lane splitting, at the same time, it fails to outlaw it. Worse, perhaps, California requires that motorcyclists simply use caution and operate their bikes "prudently."

This vague standard leaves plenty of room for bikers to interpret it however they wish.

On my drive from my home in Sun City, Calif., to March Air Reserve Base, located in Riverside, I travel on Interstate 215. Countless bikers, many wearing ACUs, blow by me as they weave between vehicles. Traffic is often slow during the commute, and the bikers travel at far greater speeds than traffic — adding to the many dangers of lane splitting.

If you are a biker, or if you have friends or relatives that ride motorcycles, share this with them. Remind them to follow these guidelines.

- Travel no more than 10 mph faster than the vehicles with which they're lane splitting.
- Merge back in with the traffic when they reach 30 to 35 mph.
- Never exceed the speed limit.
- Lane splitting between lanes one and two is preferred (lane one being the fast or inside lane)
- Stay, more or less, in one lane or the other. Excessive meandering might get you cited (California code 21658).
- Ride carefully to not cause damage to other vehicles.

Editor's note: The names have been changed to protect the family's privacy.

COMMENTS FROM A CALIFORNIA MOTORCYCLE OFFICER

The topic of lane splitting gets a lot of attention on the blog-o-sphere, especially in California. The following was an interesting contribution from a motorcycle officer responding to an individual who'd been ticketed for going 35 to 40 mph while lane splitting in stop-and-go traffic:

"At that speed you are traveling 58.7 feet per second … which is about four or five car lengths per second. An average reaction time is .75 seconds … meaning you have traveled 44 feet, or three to four car lengths, before you can even begin to apply the brakes or maneuver. If any of the cars within those three to four car lengths cuts you off, you would be a hood ornament before your brain could tell your body to react. Probably not a safe speed after all, don't you think? I ride over 130 miles on a motorcycle every weekday and I investigate very serious accidents. Speed on a motorcycle can be very deadly — even what you think is a slower speed could be fatal. Be safe while riding."

UP THE RIVER WITHOUT A PADDLE

RAYMOND OLYMPIO
Office of the Assistant Secretary of the Army
for Installation Environment and Energy
Washington, D.C.

Several good friends of mine and I took a trip across Eastern Europe from Mannheim, Germany, one Friday afternoon back in August 2008. We planned the trip months ahead of time, with no objectives or final destination in mind.

We took our first rest in Sibenik, Croatia, after partying and drinking local beer all night. The next day, with Croatia behind us, we found ourselves deep in Serbia, where we rented a room close to the Danube River. We familiarized ourselves with the area and made friends with two couples who occupied the rooms next to ours. Later that evening, we followed them to a karaoke bar, where we mingled with the locals and consumed countless shots of tuika, a locally brewed spirit.

The next morning about 9 a.m., while I was still trying to wake up, my friends and one of our neighbors persuaded me to go on a high-speed boat ride on the Danube. I finally woke up a few hours into the ride with a severe headache and quickly realized that the party from the night before was now continuing on the river. The boat was stocked with a liter of tuika, a bottle of vodka and 12 bottles of different types of local beer.

As we explored the river and drank, the boat finally started to slow down and all the occupants, excluding myself, began to practice their swimming skills. However, this phase of the river party didn't last long because my buddy, TJ, wasn't a very good swimmer. He was having difficulties swimming and, while everyone frolicked in the water, TJ began flailing around and nearly drowned! We were drunk, disorientated and unable to help him. Fortunately, good Samaritans fishing nearby came to the rescue and helped bring TJ to shore.

We didn't have any flotation devices or emergency procedures in place, and our cellphones were locked in the room. Horrified by the incident — even though tragedy was averted — we all learned a valuable lesson that day. This water-related incident could have been avoided had we followed these guidelines from the U.S. Army Corps of Engineers, National Water Safety Program:

- Take a safe boating course.
- Check your boat for all required safety equipment.
- Consider the size of your boat, the number of passengers and the amount of extra equipment that will be onboard. Don't overload the boat!
- If you will be in a powerboat, check your electrical system and fuel system for gas fumes.
- Follow the manufacturer's suggested procedures before starting the engine.
- Wear your life jacket; don't just carry one onboard.
- Leave alcohol behind to increase your safety and decrease your risk.
- Check the weather forecast.
- File a float plan with a member of your family or friend.

Also remember to:

- Never rely on toys such as inner tubes and water wings to stay afloat.
- Don't take chances by overestimating your swimming skills.
- Swim only in designated swimming areas.
- Never swim alone.

It's great to have fun with friends and Family during the summer months. However, don't let alcoholic beverages or good times turn off your safety common sense.

FYI

For more water safety tips, check out http://watersafety.usace.army.mil/safetytips.htm.

A COMMON PICTURE OF THE BATTLEFIELD

CHIEF WARRANT OFFICER 3 SHEILA PRESSLEY
A Company, 1st Battalion, 145th Aviation Regiment,
1st Aviation Brigade
Fort Rucker, Ala.

It was a day like any other. Our unit of Apache Longbows received a call from a ground unit requesting assistance on a street in downtown Baghdad. We pulled in collective, pushed the cyclic forward and headed toward the troops in contact. On the way, we received a situation report and the Attack Reconnaissance Team accessed the best tactics to employ for the situation. The cockpits of both aircraft were busy, with each individual accomplishing specific tasks along the way. Weapons armed, we were on our way to find the enemy. Once on station, we focused our attention on the ground. In the back of everyone's mind was our priority of protecting our ground forces.

The Baghdad area sectors, embedded in the map graphics of the multipurpose displays of the Longbows, provided easy recognition of boundaries for deconfliction of airspace. As a precaution, the crewmember tasked with monitoring Baghdad Radio called the controller and requested specific numbered sectors be closed to aircraft not in direct support of the troops in contact. The air traffic controller then made a call to all aircraft, reporting the sectors closed. Baghdad Radio also informed any aircraft checking into their airspace of the closed sectors by number. The attack aircraft called the controller once the mission was complete, and the controller then acknowledged and announced to all aircraft which numbered sectors were open for regular air traffic.

We took these safety precautions to avoid midair collisions and incidents of fratricide. Attack and Scout aircraft operate at varying altitudes and airspeeds, performing unpredictable maneuvers to avoid being shot down while supporting the troops. The crews were primarily focused on the ground rather than the airspace around them. The mission might call for ordnance in the form of Hellfire missiles, high-explosive 30 mm rounds and various types of rockets fired. If an aircraft inadvertently flies through a line of fire during an engagement, it can suffer friendly fire damage. If a pilot is forced into a maneuver to avoid a midair collision while the gunner is engaged, a fratricidal air-to-air or air-to-ground incident might also occur. Even illumination rockets, covert and overt, can pose a hazard to an aircraft flying beneath a falling flare, rocket body or motor. For a flight of non-participating aircraft to fly through the area can be catastrophic. Ground forces, already under fire and in need of assistance, may have to recover those crews and protect the crash site.

Medevac aircraft are always given right-of-way. They do a great job of calling Baghdad Radio or directly contacting the Attack or Scout aircraft for deconfliction if they must travel through the engagement area to save a life.

Unfortunately, close calls are regular events in closed sectors. Nonparticipating aircraft fly through closed sectors, not realizing or acknowledging the dangers. There are ways to mitigate the risks. What's required is situational awareness. More often than not, aircraft crews are simply unaware of the boundary they have crossed. Attack crews take for granted that we see the boundaries of our own ship, comparative to viewing those boundaries with a simple glance inside at the MPD at our customized map data. One way we can improve on our collective situational awareness — and, consequently, our safety — is through sharing that custom map data.

Any aircraft with glass cockpits or flying with Electronic Data Modules (also known as electronic kneeboards) can use the same map data with embedded graphics the Apaches use for boundary awareness and airspace deconfliction. Mostly, it's just a matter of sharing the map files or posting them where they are accessible to units in the same footprint. Things to consider are the classification of the map data once graphics are embedded and the display capabilities of aircraft in the task force.

Contrary to popular belief, the glass cockpit configuration is not common among aircraft. There are differences between aircraft type and among different lots, blocks and configurations within the same aircraft type. All glass cockpits can display 1:250 Joint Operations Graphics and 1:500 Tactical Pilotage Chart scale maps. The OH-58Ds are the most limited, and the CH-47Fs the most versatile when it comes to the various scales and types of maps that can be displayed in the cockpit. EDM users can display any maps FalconView can display and can fly with the very same JOG and TPC maps the glass cockpits are using.

To get a common picture of the battlefield amid aircraft, give priority to these scales of maps when embedding graphics. The subject matter expert for digital map data in aviation units is the tactical operations officer. This is the person to contact to find out which maps your unit aircraft are using to fly and their display capabilities. The TACOPS officers in brigade aviation elements can refine our air-to-ground integration by sharing the driver's maps used in their unit's brigade combat team as well. However, typically on a smaller scale than what we're flying with, key information can be graphically embedded in flight maps to provide a battlefield universal image, making operations safer. Through shared knowledge and products, we can all increase our situational awareness through a common picture of the battlefield.

LOST

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, email safe.knowledge@conus.army.mil.

AVIATION

AH-64D

CLASS C

- During refueling, the crew found the No. 1 engine nacelle opened and damaged. The crew reported checking it during preflight and in the closed position. The nacelle required replacement.

CH-47D

CLASS C

- The aircraft contacted a sod berm while landing to a landing zone under night vision goggles. The aircraft was repositioned for exfiltration, and damage was identified on postflight inspection.

CH-47F

CLASS A

- The aircraft was destroyed when it rolled rearward during a pinnacle landing in conjunction with environmental training.

MH-60L

CLASS C

- The aircraft FLIR turret shroud was damaged during landing in brownout conditions.

OH-58D(I)

CLASS C

- The aircraft struck a tree with the tail rotor during nap-of-the-earth training. Postflight and subsequent maintenance inspections revealed one tail rotor blade required replacement.

UH-60A

CLASS C

- The aircraft experienced a No. 1 engine compressor stall with TGT spike, followed by engine failure. The crew landed the aircraft at the closest airport without further incident. Postflight inspection revealed additional damage to a tail rotor blade from engine debris.

UH-60L

CLASS A

- A local national was injured when his helmet was struck by the main rotor blades during a pinnacle single-wheel landing for exfiltration of passengers.

UH-60M

CLASS C

- The aircraft was taxiing when the turret cover of a Mine Resistant Ambush Protected vehicle parked on the landing zone was sucked into the main rotor system. One MRB was damaged.

UAS

MQ-5B

CLASS A

- The unmanned aircraft swerved and came to rest off the runway after contacting the arresting cable. The nose wheel collapsed and the propeller was damaged.

CLASS C

- The UA landed during contractor currency evaluation and sustained damage to the main landing gear and forward propeller.

RQ-7B

CLASS B

- The operator experienced uncommanded airspeed/altitude fluctuations while the UA was at 15,000 feet altitude, after which he received an inertial measurement unit failure and loss of control. The flight termination system was deployed, but it was not reported whether the system was recovered.

CLASS C

- The UA experienced an engine failure and the FTS/recovery chute was deployed. The UA was recovered with damage.
- The UA experienced an engine failure while being flown to base. The operator was able to fly/guide the aircraft within 200 meters of the base and deployed the recovery chute. The UA was recovered.

LOSSES AVIATION — FISCAL 2012 Class A/Fatalities thru March 2012

ATTACK	3/0
RECON	1/4
UTILITY	3/1
CARGO	2/0
TRAINING	0/0
FIXED-WING	1/0
UAS	2/0
TOTAL	12/5

as of Apr. 4, 2012

LOSSES GROUND — FISCAL 2012 Class A/Fatalities thru March 2012

AMV	8/4
ACV	4/2
PERSONNEL INJURY (includes weapons-handling accidents)	11/11
FIRE/EXPLOSIVE	3/2
PROPERTY DAMAGE	0/0
TOTAL	26/19

as of Apr. 4, 2012

GROUND

Personnel Injury

CLASS A

- A Soldier died when he was struck in the abdomen by an M72 Light Anti-Tank Weapon warhead. Three nearby Soldiers also suffered injuries.
- A Soldier was killed when he was struck by a .22-caliber round while hunting with three other Soldiers. Their hunting dog reportedly leapt up as one of the Soldiers was taking aim and struck the butt of the rifle, causing it to shift fire.

DRIVING

POV

CLASS A

- A Soldier was killed when he crashed his car while returning from leave.

CLASS C

- A Soldier was injured when he turned onto an interstate exit and was struck from behind by a speeding vehicle.
- A Soldier was injured when he hit black ice and slid into a parked van.

POM

CLASS A

- A Soldier was killed when he struck a guardrail while speeding and weaving through traffic. The Soldier was wearing his helmet and had completed the Motorcycle Safety Foundation's Basic *RiderCourse*.
- A Soldier died after he ran a red light and was struck by an SUV. The Soldier was wearing a DOT-approved helmet and personal protective equipment.

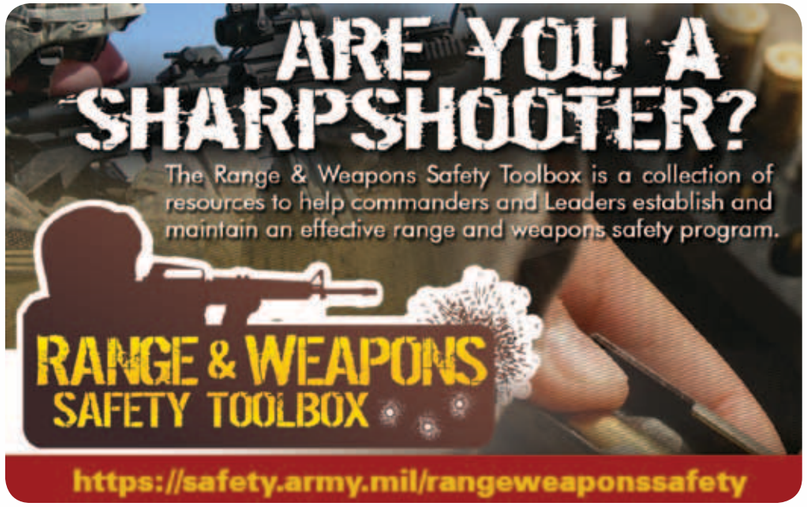
LOSSES POV/POM — FISCAL 2012 Class A/Fatalities thru March 2012

CAR	16/16
SUV/JEEP	7/6
TRUCK	2/2
MOTORCYCLE	17/16
PEDESTRIAN	3/3
OTHER* (*Includes vans, ATVs, snowmobiles and bicycles)	1/1
TOTAL	46/44

as of Apr. 4, 2012 — Fiscal Year 2011: 45 — Three Year Average: 45

CLASS C

- A Soldier was injured when a vehicle driver violated right of way in an intersection and pulled in front of him. The Soldier was wearing his helmet and PPE.



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& SISTERS

AMMO STORAGE: HOW SAFE IS YOUR ARSENAL?

KNOWLEDGE

VOL 6 JUNE 2012

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

DRIVING DRUNK

ONCE IS ALL IT TAKES

+

AIRCREW COMPLACENCY

- RIP CURRENTS
- FALL PROTECTION
- HYDROPLANING

U.S.ARMY
ARMY STRONG.

THE BAND OF BROTHERS & SISTERS

SCAN HERE FOR KNOWLEDGE ONLINE

2012 National Safety Month

During the past several years, our Army has reduced preventable accidents to near peacetime levels. This remarkable success has been achieved despite the high operations tempo of our continuing missions overseas, proving once again the diligence and dedication of our Soldiers. We commend each and every one of you for your hard work in making safety a top priority, both on and off duty.

While risk management deserves our attention and focus 24/7, our Army is again placing special emphasis on safety this summer by observing National Safety Month in June. This annual commemoration provides each of us with an opportunity to evaluate our safety programs and make necessary adjustments for the months ahead. One of four topic areas will be highlighted each week during the month — Civilian safety, ground safety, aviation safety and driving safety. To facilitate training, the U.S. Army Combat Readiness/Safety Center will release programs and tools targeted to each of these areas through the end of June, so visit their website at https://safety.army.mil often for products that will help you keep your Soldiers and Civilian employees safe.

Looking past June, the fourth quarter (July-September) is historically the deadliest time of the year for our Soldiers off duty. Privately owned vehicle and motorcycle accidents dominate fatality reports, but drowning and other water-related deaths have also been on the rise in recent years. Compounding the tragedy, indiscipline is cited as a root cause in most of these losses. Discipline and standards are at the core of our profession, and preventable deaths due to reckless behavior hit our units, our Families and our surviving Soldiers especially hard. Engagement between Leaders and Soldiers, and among peers, is the key to identifying high-risk behavior, addressing indiscipline and saving lives. We ask that leaders actively promote an atmosphere of risk mitigation for all activities both on and off duty to ensure the safety and well being of the Force.

Thank you for your support of National Safety Month and for doing your part to reduce preventable accidents across our Army. Keeping our Soldiers safe is both a force protection and a readiness issue – and it is everyone's responsibility. The smart decisions we make every day will have a lasting impact on our Army now and into the future.

ARMY SAFE IS ARMY STRONG!

Raymond F. Chandler, III
Sergeant Major of the Army

Raymond T. Odierno
General, United States Army
Chief of Staff

John M. McHugh
Secretary of the Army

KNOWLEDGE

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

LEADERS SOLDIERS CIVILIANS FAMILIES

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U.S. ARMY COMBAT READINESS/SAFETY CENTER

ARMY SAFE IS ARMY STRONG

Mission statement: The United States Army Combat Readiness/Safety Center (USACR/Safety Center) supports our Army by collecting, analyzing and communicating actionable information to assist Leaders, Soldiers, Families and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please email comments to **safe.knowledge@conus.army.mil**.

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FORGING THE WAY AHEAD

> "SOLDIER-TO-SOLDIER engagement is making a HUGE DIFFERENCE in BOTH on- and off-duty SAFETY."

Another season of change is upon us, and our Army is getting summer off to a great start by officially observing National Safety Month during June. Army Leadership is asking that commanders across the force take this opportunity to evaluate their safety programs and prepare for the months ahead, which are historically the deadliest time of year for our Soldiers off duty. I'd like to kick off the month and the 101 Critical Days of Summer with an evaluation of my own, looking at the amazing strides our Army has made for safety and the people who have made that success possible.

First, I cannot express how proud I am of the way our Leaders have grown during the past decade. They have accepted every challenge put before them and accomplished increasingly complicated missions not only well, but more safely than ever. From the first-line Leader through the entire chain of command, engagement has been the key to our Army's historic reduction of preventable accidents during wartime. This is a feat unprecedented in our nation's history, and it couldn't have happened without our Leaders remaining focused and looking out for their Soldiers all the time.

Our Soldiers have grown right along with their Leaders. Those of us who wear the uniform have always been concerned for one another's well-being, but I've never seen the level of engagement regarding safety among peers as what exists today. Whether it's reminding a friend to wear a seat belt or personal protective equipment, slowing down on the highway or calling a cab after a night of celebrating, Soldier-to-Soldier engagement is making a huge difference in both on- and off-duty safety. I commend our men and women for the fantastic job they are doing for each other and ultimately our Army, whether on patrol in Afghanistan, in the barracks back home or at a backyard cookout.

After more than 10 years of war, our Family members have shown an amazing resilience and accepted the hardships of Army life with grace and dignity. Our Army remains ready for any challenge because its backbone, our Families, is forged with steel that gets tougher by the day. As such, our spouses, children, parents and siblings have proved indispensible in promoting safety. Leaders, please remember to include your Families in your safety programs — we owe it to them as part of the Army Team and, when aware of the risks, they are a vital and influential part of your safety program, helping our Soldiers make the right life decisions to stay safe.

Additionally, our safety professionals and Army Civilians continue to work diligently to keep Soldiers safe. I've said many times there is no more noble goal than striving for Soldier safety, and I emphatically repeat that statement now. Our Civilian safety professionals often work in the shadows of day-to-day operations, but their impact is felt all the way to the front line. Commanders are extremely fortunate to have these highly educated and motivated professionals within their ranks, and I encourage you to take full advantage of their expertise in all matters. Even the most mundane of topics could have safety implications, and the knowledge and wisdom of these safety professionals has proven priceless both in theater and back home.

Finally, the USACR/Safety Center team has grown and evolved with the rest of our Army Family. Leaders and Soldiers have provided invaluable feedback that has led to important changes in the way we provide training, outreach and tools to help them live safer lives. Army safety is becoming more professionalized and mainstream than ever, and this success is due to the combined efforts and support from senior Army Leadership, Leaders in the field, and the work accomplished daily at the USACR/Safety Center.

Whether you're a Leader, Soldier, Family member or Civilian — thank you for what you have done and continue to do. It has been an honor to serve alongside each of you, and I ask that you welcome our incoming director of Army Safety, Brig. Gen. Tim Edens, with the same enthusiasm you have shown me these past three years. I have no doubt our mission will continue to flourish in his capable hands, especially with your help. Now and always, we will see you on the high ground; in the meantime, continue to keep safety a part of all you do each and every day, on and off duty.

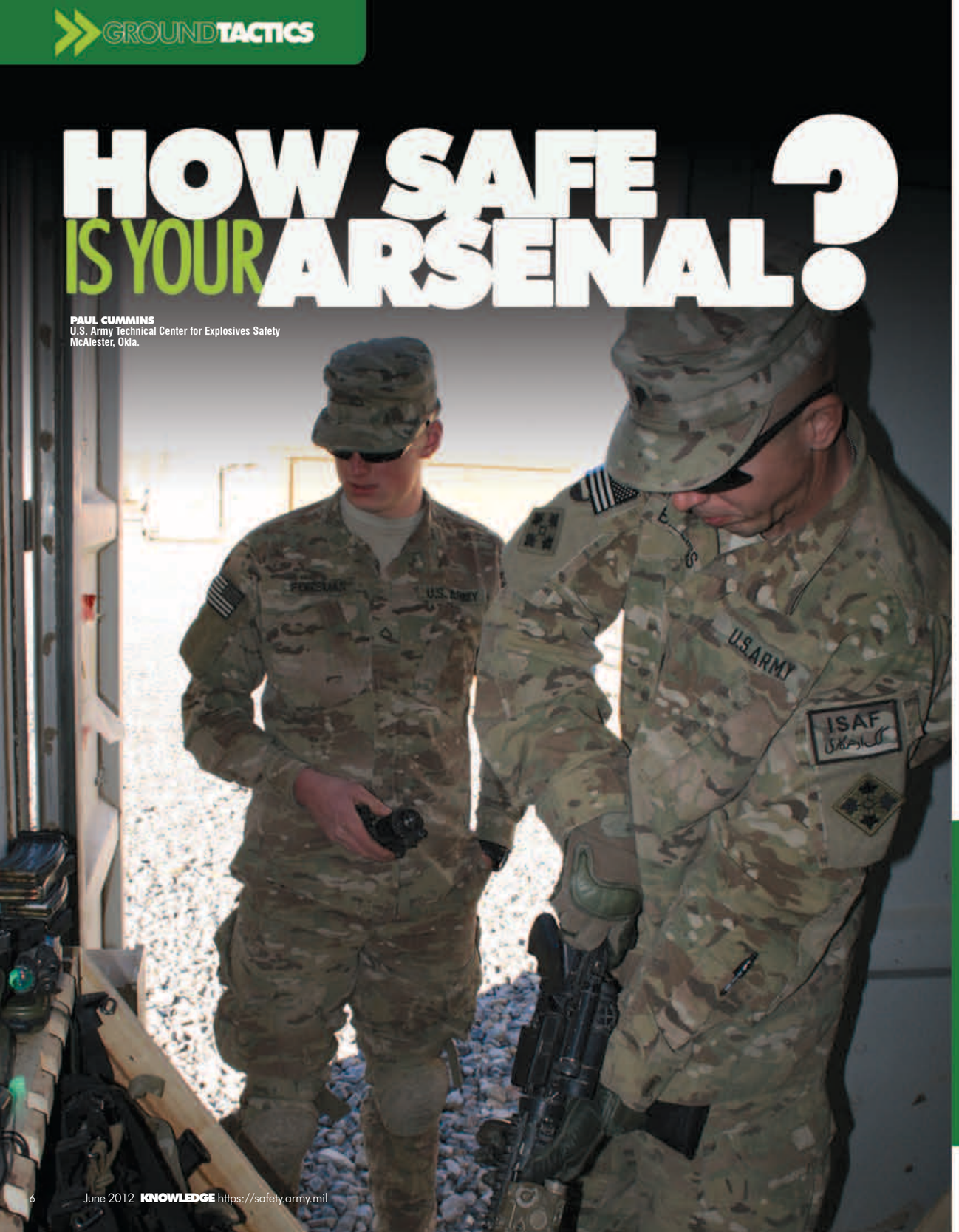
God bless our Soldiers, their Families and our Army Civilians!

Army Safe Is Army Strong!

WILLIAM T. WOLF
Brigadier General, USA
Director of Army Safety

HOW SAFE IS YOUR ARSENAL?

PAUL CUMMINS
U.S. Army Technical Center for Explosives Safety
McAlester, Okla.



In a tactical environment, a Soldier's access to ammunition and explosives is virtually unlimited. Downrange, Soldiers may go to bed with their boots on, their web gear full of grenades hanging on the back of their bunk and a Light Anti-Tank Weapon stored on the floor underneath. As a Soldier, what are you to do to keep yourself and your battle buddies safe?

To begin with, Soldiers need to remember to treat weapons and ammo with respect. Never point the muzzle of a weapon at a buddy or anything you don't intend to shoot. Don't store inert or dummy munitions in the same location you store your live ammo. In addition, ensure your dummy/inert munitions are clearly marked. Inert munitions are valuable training tools, but remember, training never starts with the words "watch this."

Muzzle awareness and proper storage — hooah, got it. That's it, right? Not exactly. Let's say you've been designated as the ammo officer during this deployment and you're responsible for the storage of all the ammunition and explosives on your contingency operating base. Your commander informs you that you have a shipment of your unit's basic operating load showing up in two days. The previous unit's ammo officer hands you a crumpled piece of paper that is supposedly a list of their remaining ammo, tosses you the keys to some containers and jumps on the freedom bird home. Reluctantly, you go to the first container (luckily, it's located next to your tent and the dining facility), unlock the door and peek inside. What greets you is a stack of small-arms ammo that looks like it's been there since World War II. Not only that, it looks like someone shook the container like a martini.

When you open the second container, you're relieved. This one is neatly stacked with 60 and 81 mm mortars and 105 mm rounds. They even have ammunition data cards on top. That's all good, except your unit doesn't use 105 mm rounds and doesn't even have a 105 mm gun. What's a Soldier to do? Actually, you have help. Your brigade safety officer and brigade ammunition warrant officer know about ammo and explosives safety. Besides their immediate assistance, they know the ammunition specialists throughout the theater that have experience with your issues.

A good first step is to set up a visit with an ammunition logistics assistance representative, or ammo LAR. The ammo LAR is a brigade asset that will help with storage compatibility, unserviceable ammo, packing, excess ammunition and documentation. This representative works closely with quality assurance specialist ammunition surveillance and the theater explosives safety officers. The QASAS are at the larger forward operating bases' ammunition transfer holding points and ammunition supply points. The theater explosives safety officers are generally at higher headquarters. Together, with your brigade safety officer and ammo warrant officers, their jobs

DID YOU KNOW?

The Range and Weapons Safety Toolbox is a centralized collection of online resources for managing range operations and safe weapons handling. The toolbox hosts various references and materials, including publications, training support packages, multimedia products, ammunition and explosives information, and safety messages and alerts. The toolbox also provides links to useful sites and tools like the Defense Ammunition Center's Explosives Safety Toolbox and the Ground Risk Assessment Tool. Check it out at https://safety.army.mil/rangeweaponssafety/. Shoot straight, stay safe.

are to provide you the assistance needed to establish a safe and effective ammunition storage site.

Now, what can you do to help yourself? Start by organizing your ammo. Put it on pallets, separated by lot number. Record these different lot numbers and give the list to your ammo LAR or brigade ammunition warrant officer. They will review the list, focusing on items that are suspended or restricted. Let them know which munitions you don't need and what items will likely require replenishment in the future. If you know some items are unserviceable or restricted, segregate these from the rest of your assets. Again, don't store your inert/dummy/training munitions with your regular ammo.

With a complete list of all your ammo, your next step needs to be looking up net explosives weights in your "yellow book" (Hazard Classification of U.S. Military Explosives and Munitions). Using your calculator, you figure out that you have 1,500 pounds net explosives weight in your containers. Maybe having your ammo storage "conveniently" located next to your tent and the dining facility isn't such a good idea. Bring this to the attention of the COB mayor. It might be time to move your arsenal.

OK, separate ammo by lot numbers, check. Call the ammo LAR, check. Segregate unserviceable items, check. Coordinate with the COB mayor, check. Point muzzles at the bad guys only, check. Wait, what about that LAW rocket? Maybe storing it underneath your bunk isn't the best place. Come to think of it, you probably don't need the web gear with grenades hanging off the back of your bunk either. But you just convinced the COB mayor to relocate the ammo to a safer location. Consider a ready ammo storage location. Just enough to meet mission requirements, but not so much that we have to crawl over it to get to what we need. Sounds like a good recommendation for the first sergeant.

Safely handling and storing ammunition and explosives in a tactical environment isn't as simple as some think, but it's much easier when you ask for and get the help you need. Remember, you can meet mission requirements better when you have a safe and effective storage location.

Editor's note: The guidelines, tips and best practices in this article are applicable at COBs as well as forward operating bases and combat outposts.

ARE YOU READY?

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Wouldn't you like to prevent the loss of personnel and equipment?

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ARAP

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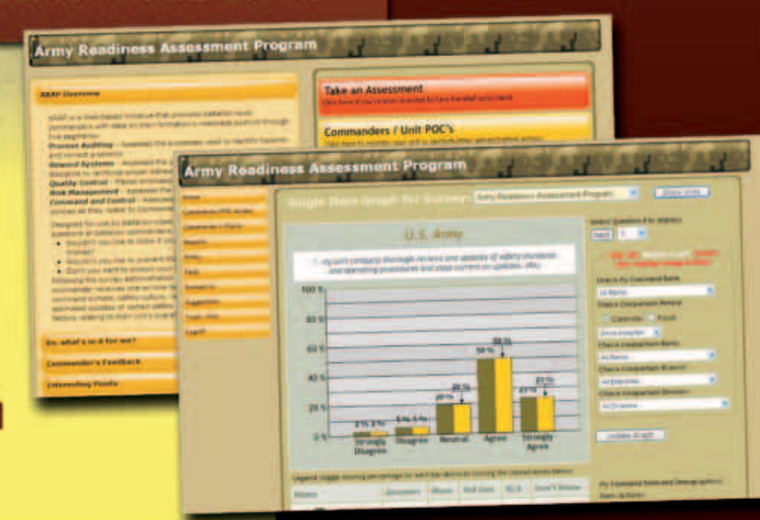
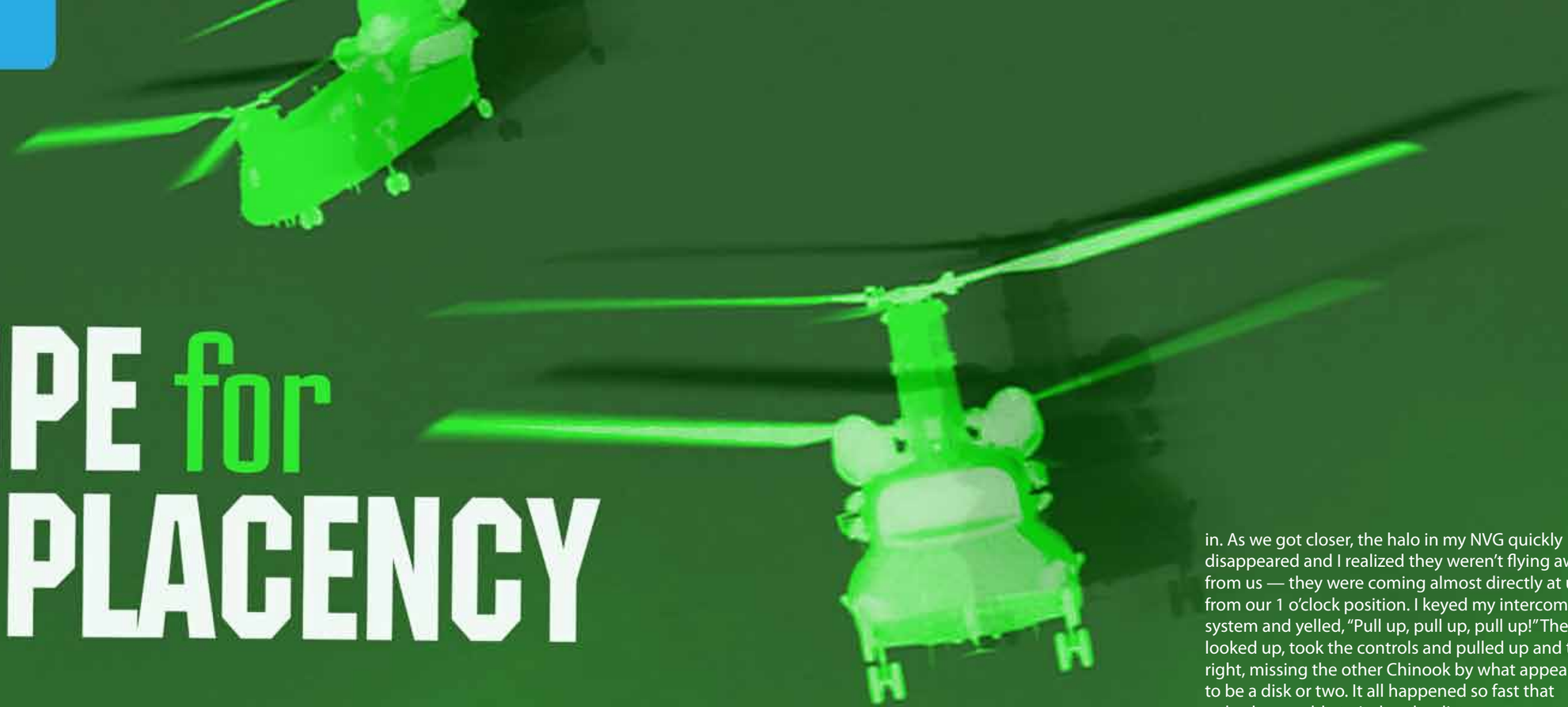




RECIPE for COMPLACENCY

CHIEF WARRANT OFFICER 2 KYLE JOHNSON
U.S. Army Air Ambulance Detachment
Yakima Training Center
Yakima, Wash.

We were on a routine night training mission on Fort Stewart, Ga., to prepare us for combat operations. I was sitting in the jump seat in one of two CH-47s operating in the southeast corner of the range. We were flying south on Blue route heading toward Jaeck landing zone, where another CH-47 was practicing pinnacle landings. Our instructor pilot was in the left seat while the pilot in progression was on the controls in the right seat. The weather was fine and we had good visibility. There were only a few other aircraft operating on the range that night, so we didn't anticipate much risk. That mindset would prove a recipe for complacency.

While Army aviators talk a lot about crew coordination within the cockpit, if they're not flying formation, they often don't say much about other aircraft being a factor. When training, you don't typically have a coordinated plan of maneuver with other aircraft in the area. A radio call here and there typically does the trick.

As we neared the airfield, we made a common traffic advisory frequency call to let the other aircraft know we were heading their way. They responded, advising that they had us in sight and would stay clear of us. We took this as a green light to continue without worrying too much about what the other aircraft were doing. I was watching the CH-47 as it came off the pinnacle, but the halo effect of their lights through my night vision goggles made it difficult to see which direction they were flying. The IP was looking inside, setting up the radios, while the PI was on the controls heading toward the LZ in preparation for landing.

I watched the other Chinook as it gained altitude and turned to the right, appearing to fly away from us. We all know that an aircraft will tend to look stationary in the sky if it's headed for a midair collision. If my memory serves me right, I thought the Chinook appeared to be moving very slowly to the left. Again, I didn't think much of it considering they were going to stay clear of us. I assumed they must be heading away from us as they departed the area.

I was wrong, however, and things suddenly got a bit hairy as, within a second or two, reality set in. As we got closer, the halo in my NVG quickly disappeared and I realized they weren't flying away from us — they were coming almost directly at us from our 1 o'clock position. I keyed my intercom system and yelled, "Pull up, pull up, pull up!" The IP looked up, took the controls and pulled up and to the right, missing the other Chinook by what appeared to be a disk or two. It all happened so fast that nobody was able to judge the distance accurately. As far as I know, the other crew never even saw us.

This situation reminds me that anything can happen, even when you least expect it. We thought we'd done the right thing by announcing our position to the other aircraft in the vicinity. We thought we mitigated the danger when they told us they had us in sight. We dropped our guard too soon and barely avoided a catastrophic accident. This was a good reminder to me and the other members of my crew to always stay cognizant of the conditions and dangers — no matter what the situation — whether training or in combat. Being complacent, even if it's just for a few seconds, can kill you.

> "While Army **AVIATORS** talk a lot about **CREW COORDINATION** within the cockpit, if they're not flying **FORMATION**, they often **DON'T** say **MUCH** about **OTHER** aircraft being a **FACTOR.**"

PUSHING the LIMITS

CHIEF WARRANT OFFICER 3 TODD JACOBSON
Operational Support Airlift Command Regional Flight Center
Fort Hood, Texas

There I was, the "temporary" untracked aviation safety officer for my company, purposely speeding on my motorcycle after work and — worst of all —right in sight of my company! Looking back more than six years later, I have to shake my head and ask, "Why would I do such a stupid thing?"

Neither then nor now could I provide a logical answer to that question. Was I a new motorcycle owner? No, I'd been riding sport bikes for more than seven years. Was I trained to ride a motorcycle properly? I sure was; I'd completed the Army-approved Motorcycle Safety Foundation Experienced *RiderCourse* more than once and also taken the dirt bike course. Did I fit the demographic of an unsafe rider? Not completely. Although my age put me within the target demographic of Soldiers between the ages of 23 and 33, I was considered an experienced rider. I always wore my personal protective equipment and wasn't labeled a high-risk Soldier. I was a chief warrant officer at the time and mentored many Soldiers in my company. Sure, I'd just come back from deployment and perhaps felt the need to blow off some steam. However, I should've considered some other method for doing that. At the speeds I was traveling, had I been distracted or needed to make a slight correction, I'd have ended up the subject of a preliminary loss report.

The thought of costing my unit some of its combat readiness wasn't enough motivation to stop my high-risk activities. Despite the safety briefs I'd given or heard presented by my commander, I chose to push the limits on my bike. By my actions, I contradicted what I was

JUST THE FACTS

DIXON DYKMAN
Operations Research and Systems Analysis
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

In fiscal 2011, there were 178 motorcycle accidents, including 47 Class A (an accident resulting in a fatality, permanent total disability or $2 million in damage), nine Class B, 93 Class C and 29 Class D accidents reported to the U.S. Army Combat Readiness/Safety Center. These accidents resulted in the loss of 45 Soldiers. There were also 122 Soldiers who received nonfatal injuries as a result of these accidents. In addition to the loss of life and injuries, these accidents cost the Army 1,504 workdays, 518 days of hospitalization and 3,556 days of restricted duty for the Soldiers involved.

Of those who died, the majority (42 of 45) were enlisted. Of those, 26 were sergeants and below. Additionally, nine were staff sergeants, six were sergeants first class and two were master sergeants/sergeants major. Three Soldiers who died were either commissioned or warrant officers. While the youngest fatality was 19 and the oldest was 48, 13 of the Soldiers who died were 23 years old or younger. The average age of a motorcycle crash victim was 30.2 years old. Most of the victims had completed the required training, wore personal protective equipment and were licensed to operate their motorcycles. However, four Soldiers weren't wearing helmets, four didn't have a motorcycle operator's license and five hadn't completed Motorcycle Safety Foundation training. Twenty-six fatalities occurred during daylight hours, 16 occurred at night and the remaining three occurred at dusk. One in four fatal accidents involved Solders who had redeployed within the previous 180 days.

Sport bike accidents accounted for 23 fatalities. In fact, 10 Soldiers were killed while operating a Suzuki GSX-R-series motorcycle. Cruiser accidents accounted nine fatalities, with six of those Soldiers riding Harley-Davidsons. In 13 fatal accidents, the motorcycle type wasn't reported.

As summer begins and more Soldiers take advantage of the warm weather to ride their motorcycles, there will likely be more accidents. Of the 45 fatalities in fiscal 2011, 29 died between the months of April and September. Riders must remain vigilant for other vehicles while operating their motorcycles and observe local traffic laws. Leaders must ensure that all riders follow Army regulations and policies when operating motorcycles.

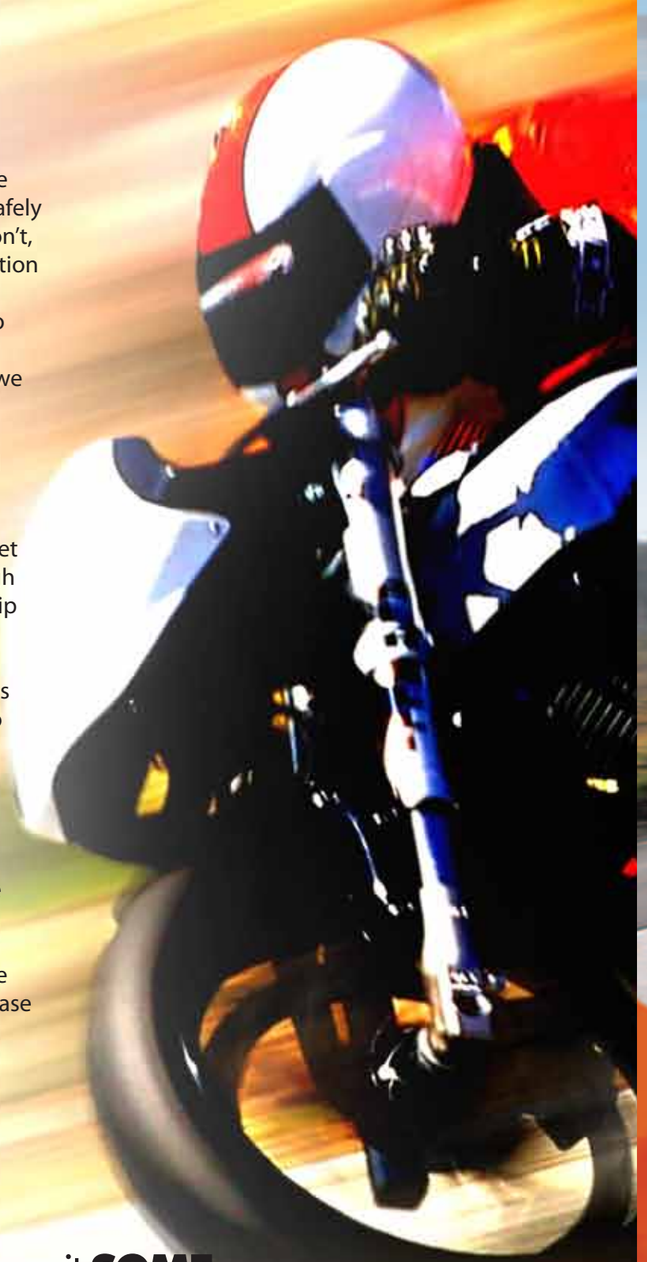
telling my Soldiers. What finally snapped me back into reality was the thought of leaving my wife without a husband and my kids without a father. I didn't want to miss spending the rest of my life with them.

So, what will it take for us to understand that when we push ourselves to the limit on our bikes, sooner or later we're going to lose? Whether it's safety videos put out by the U.S. Army Combat Readiness/ Safety Center or realizing our Families are more important than our need for speed, we — especially us sport bike riders — need to change the way we ride. If we don't, someone higher up will do it for us.

Look at the PLRs — the statistics don't lie. Motorcycle accidents and fatalities are a big safety concern. In fiscal 2010, 39 of 153 PLRs — more than 25 percent — reflected motorcycle fatalities. Don't get me wrong; I'm not saying we shouldn't buy and ride motorcycles. I still ride and I love it. However, we need to choose to ride safely and responsibly. If we don't, we might not get the option in the future.

The Army is losing too many Soldiers and, with the training we receive, we should be smarter than this. We're provided the MSF's basic, experienced and sport bike courses for free. When we return from deployments, we get refresher training through newly created mentorship programs. Still, for some reason, too many riders decide to test themselves by pushing their bikes to the limit. I was lucky, but statistics and PLRs show many riders are not.

I decided to discuss my mistakes openly to encourage others to ride responsibly. Fortunately, I wasn't hurt and my wakeup call came in time to make a difference. Please don't let your wakeup call come too late.



> "The thought of **COSTING** my unit **SOME** of its combat **READINESS** wasn't enough **MOTIVATION** to **STOP** my **HIGH-RISK** activities. **DESPITE** the safety **BRIEFS** I'd **GIVEN** or heard presented by my commander, I chose to **PUSH** the **LIMITS** on my **BIKE.**"

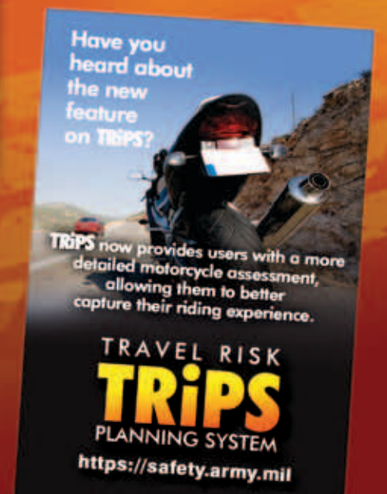
RIDE FOR YOUR LIFE

The Motorcycle Mentorship Program establishes voluntary unit- or installation-level motorcycle associations where less experienced riders and seasoned riders can create a supportive environment of responsible motorcycle riding and enjoyment. This can create positive conduct and behavior and serve as a force multiplier that supports a commander's motorcycle accident prevention program.

MMP
MOTORCYCLE MENTORSHIP PROGRAM

Check out the USACR/Safety Center MMP website for some examples of active mentoring programs.

https://safety.army.mil/mmp/



My Not-So-Fun FOURTH

RETIRED GUNNERY SGT. JEFF CARLSON
U.S. Marine Corps
Lafayette, Ind.

What holiday is better than the Fourth of July? None — especially when you're an 11-year-old boy fascinated with firecrackers, bottle rockets and anything that goes "boom!"

What's not to love about the Fourth of July? Barbecues, staying up late and watching all the magnificent fireworks were annual traditions when I was growing up. One afternoon, my friends and I decided to start the festivities a little early and headed to a local fireworks stand. We looked in awe at all the wonderful Chinese-made packages of fun and picked out our favorites. My friend, Eric, chose bottle rockets, while another friend grabbed some firecrackers. I picked out some Roman candles. In those days, you could buy anything you wanted as long as you told the fireworks stand owner it was for your father.

With our purchases in hand, we happily rode our bikes back to Eric's house because he had a huge backyard and his parents were never home. After all, who wants parents around when you're doing things you're not supposed to do? Eric went searching inside his house for something we could blow up and returned with several of his brother's model cars. After loading the cars with fireworks, we spent the next hour destroying them. Yes, we did this without parental supervision, proper personal protective equipment or regard to our safety.

Once the cars were satisfactorily dismantled, it was time for the bottle rockets. We started off by launching them out of an old Pepsi bottle. At first, we'd light them, step away and watch them explode in the air. After a while, however, we decided it would be more fun to hold the Pepsi bottle so we could shoot them at various things in the yard. While this was fun, it was not very smart or safe.

Once the bottle rockets ran out, it was time for the big finale — Roman candles! For those who aren't familiar with Roman candles, they are long, narrow cardboard tubes that shoot fireballs. As I held one of the Roman candles, I noticed a warning on the side that stated, "Do Not Hold in Hand." "Really," I thought. "How can we enjoy the fireballs if we don't hold them?"

Throwing caution to the wind, we decide to ignore the warning and hold the Roman candles anyway. It started wonderfully — colored balls of fire shooting everywhere. Suddenly, as I pointed mine at a tree, I heard a weird pop and saw a cloud of smoke. Then I felt a searing pain in my right hand. The candle had exploded in my hand! All I could think of was the warning label and how it was right.

I nervously looked at my hand to survey the damage. There was blister the size of a silver dollar swelling up, and I was now in horrible pain. Luckily, that was the extent of the damage. My fingers were intact and I wasn't bleeding. However, my parents did ground me for two weeks when I told them what happened. Take my advice and heed the warning labels on fireworks. They're there for a reason.

FYI

To help you celebrate safely this Fourth of July, the Consumer Product Safety Commission and the National Council on Fireworks Safety offer the following safety tips:

- **Always read and follow label directions.**
- **Have an adult present.**
- **Buy from reliable sellers.**
- **Use outdoors only.**
- **Always have water handy (a garden hose and a bucket).**
- **Never experiment or make your own fireworks.**
- **Light only one firework at a time.**
- **Never re-light a "dud" firework (wait 15 to 20 minutes and then soak it in a bucket of water).**
- **Never give fireworks to small children.**
- **If necessary, store fireworks in a cool, dry place.**
- **Dispose of fireworks properly by soaking them in water and then disposing of them in your trashcan.**
- **Never throw or point fireworks at other people.**
- **Never carry fireworks in your pocket.**
- **Never shoot fireworks in metal or glass containers.**
- **The shooter should always wear eye protection and never have any part of the body over the firework.**
- **Stay away from illegal explosives.**

ALL JACKED UP

CHIEF WARRANT OFFICER 3 LEWIS BLASE
A Company, 5th Aviation Battalion
Fort Polk, La.

It had been a long trip, but my destination was now less than an hour away. I was on the second day of a roughly 11-hour road trip to my new assignment at Fort Polk, La. The day had been filled with frustrating delays, thanks to waking up late that morning, traffic jams and long lines at gas stations. Every delay seemed worse than it actually was and my mid-afternoon arrival time had slipped to early evening. The sun was beginning to set when, finally, I felt my trip was coming to an end. That's when "it" — a blown tire — happened.

I could feel my SUV pulling to the right as the road noise got louder. Because my vehicle was less than a year old, my supervisor gave it only a quick inspection before I took off. That's not to say we "pencil-whipped" it, but we definitely didn't look all that hard for problems.

I pulled into the right-side emergency lane. Luckily, I was on a four-way divided road, so traffic could get over if needed. Not that there was any traffic now, late as it was on a Tuesday afternoon. If I hurried, I had just enough daylight left to change the tire before it got dark. And that was important because there weren't any streetlights and I didn't have a flashlight. If I didn't fix it quickly, I'd have to wait for a tow truck, delaying my trip even more.

I shifted into "Park," turned on my flashers and headlights, checked my rear and side view mirrors for approaching traffic and then climbed out. I circled around the front of my SUV and saw the right-front tire was flat, sitting on the rim. Rather than spending a lot of time looking for the leak, I got the jack handle and lug wrench from the back of the SUV and then crawled underneath and dropped the spare tire. It was dirty, but it was full of air and didn't show any signs of dry rot or damage.

I quickly rolled the spare next to the flat tire. I positioned the jack under the vehicle frame at what looked like the most secure and logical spot. I'd changed several tires in the past, so I thought this wouldn't be any different. The jack had a label stating, "WARNING: Consult owner's manual before use." I disregarded the warning and raised the jack just enough to contact the jack point on the vehicle. I then grabbed the lug wrench, turned the lug nuts loose and jacked up the vehicle so I could pull off the flat and slip on the spare. I'd taken off the lug nuts from the flat and was starting to remove it when my SUV leaned forward on the jack, bending it beneath the vehicle's weight. Instantly, I grabbed the spare tire and slid it beneath the wheel hub, barely making it before the jack gave way. I quickly jumped back, expecting my SUV to continue rolling forward and to the right. Fortunately, it stayed right there.

Because I'd been in such a hurry, I'd forgotten to set the emergency brake. Between that and the vehicle's weight shifting as I removed the flat, the jack began leaning and gravity did the rest. I called a tow company and an hour and a half later, the SUV was ready to go again.

What I thought was an easy task turned out to be a dangerous accident waiting to happen. Complacency and being in a hurry can have tragic consequences. All it took for me to avoid that danger was to slow down, take a step back and apply some composite risk management. The hazards — including the approaching darkness, the sloping roadway and failing to follow the recommended directions for the jack — could all have been identified. Had I read how to change a tire in the owner's manual, it would have reminded me to apply the emergency brake. Just the loss of daylight alone without having any artificial light available should have made calling a wrecker a no-brainer.

Even when the task seems easy and routine, taking a step back and looking at the larger picture can save you time and, in worst-case scenarios, from getting hurt. A long time ago someone came up with the saying, "Haste makes waste." That's a piece of wisdom that still applies today.

> "Had I **READ** how to **CHANGE** a tire in the owner's **MANUAL**, it would have **REMINDED** me to **APPLY** the emergency **BRAKE.**"

INCLUDE YOUR CREWMEMBERS

CHIEF WARRANT OFFICER 2 JOSIAH A. JOHN
A Company, 2nd Battalion, 158th Assault Helicopter Regiment,
16th Combat Aviation Brigade
Joint Base Lewis-McChord, Wash.

It was a fairly routine flight. The flight crew, besides me as pilot in command, included a senior chief warrant officer as the pilot and a specialist and sergeant as the crew chief and gunner in the back of our UH-60. It was getting late in the evening and we were on the last leg of our combat circulation flight over Iraq. The weather reports showed conditions deteriorating slightly, but the weather was still within our briefed minimums and the unit command had approved the flight.

We were flying just north of Ramadi en route to our home base of Taji when we came into an organized ambush. It seemed like our aircraft was subject to the "golden bullet" rule because the first rounds went up into our hydraulic deck and disabled the pilot assist module. The next rounds impacted somewhere in the transmission section, knocking out our stabilator automatic control. Luckily, we still had manual control of the stabilator. We managed to get out of the ambush, but not until another chain of rounds went through the cockpit, taking out my pilot. I immediately took the controls, got on the radio and declared an emergency and notified my trail aircraft of the situation. I looked up just as the weather we'd anticipated would remain legal dramatically worsened. Before we knew it, we were in inadvertent instrument meteorological conditions.

Luckily for me and the crew, this was just a simulation performed as a part of my pilot in command evaluation. The flight taught me an important lesson about flying as a crew — that it is important to get the backseaters involved in the flight. As pilots, sometimes we fail to integrate our crews fully into the mission. As much as feasible, they need to be involved in every aspect of the mission from the train-up and planning phases through the post-mission after-action review. This training should include at least a basic understanding of the operation of the avionics we use up front. In the situation I described, I had one crewmember on a restraint harness across the center console trying to program the GPS for an approach into Taji. I was flying off the aircraft boost while, at the same time, trying to explain to him how to program the approach we wanted into the GPS. Had I trained him on the ground before the mission, it would have only taken a few minutes. Under much less stressful conditions, he'd have had a better chance of retaining the training.

Including crewmembers in the required pilot training classes we conduct on a regular basis would also be valuable. While crewmembers are involved in the general courses, when the subject turns to a pilot-specific topic — such as aerodynamics or emergency procedures — too often they're released to their own duties without the option of remaining behind to learn more.

Planning and briefing missions are also a phase of operations where, more often than not, crewmembers are left out because it does not pertain to them. The result is crewmembers are unfamiliar with the mission route and unaware of any anticipated threats they need to be watching for. Able to see beside and behind the aircraft in ways that we pilots cannot, crews are vital to mission safety. By including crewmembers in mission briefings, they can be more effective at identifying potential threats.

Regardless of how you do it, make sure you include your crewmembers as active participants in the flight. From pre-mission planning to post-mission AAR, your crewmembers are a vital part of your team.

THE STRAIGHT SHRINK

COL. MANUEL VALENTIN
Command Surgeon
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

As Soldiers, we are expected to meet rigorous height and weight standards and perform well physically. Unfortunately, many Soldiers resort to an "easy" solution for weight loss and improvement of their physical prowess in the form of metabolic enhancers. While many of these enhancers are legal and readily available at commissaries and exchanges, as well as local chain stores and online, there are banned products on the market. Soldiers need to be aware that the purchase or use of drugs, supplements or banned products, or the misuse of prescription drugs, is illegal and may be punishable under the Uniform Code of Military Justice. Let's take a look at thermogenics and stimulants to see exactly how they affect our bodies.

Thermogenics are drugs or supplements that facilitate weight loss and increase energy. Most thermogenic products usually contain stimulants that increase energy levels and blood flow, leading to an increase in body temperature. They are typically classified by the Food and Drug Administration as food additives; therefore, they're not controlled by state or federal medical agencies. Common substances used as thermogenics contain different forms of caffeine such as kola nut, guarana and green tea. Other thermogenic substances include bitter orange, ma huang (ephedra) and dimethylamylamine, or DMAA, which was originally sold as a nasal decongestant.

In 2004, the FDA banned the use of ephedra in over-the-counter supplements. Recently, the Department of Defense suspended the sale of products containing DMAA at all military installations pending further study because a Soldier died after collapsing during a unit run and another died following a physical fitness test.

Even over-the-counter thermogenic supplements can be associated with significant side effects, many of which can be life threatening. These include changes in heart rate, increased body temperature, addiction, gastrointestinal problems and anxiety, among others. Nationwide, many deaths have been associated to their use because of significant cardiac compromise or severe heat injuries. Although many over-the-counter supplements and energy enhancers can produce injury or death, the latest emphasis has been on DMAA, mostly as a result of the possible link between the recent deaths of the two Soldiers and their suspected use of products containing this supplement.

Most medical professionals acknowledge that DMAA is linked to serious medical conditions, including dangerous increase in blood pressure, headaches, lightheadedness, stroke, depression, irregular heartbeat, dehydration, tremors and lethal exhaustion. In our Army population, the usual mechanism of bodily injury from the use of thermogenics is heat injuries, which could lead to heat stroke. Although increased ambient temperature can contribute to heat injuries, these can also occur with low ambient temperature, and we have seen an increased trend of heat injuries during the cooler months of fall, winter and early spring. We do know thermogenic substances can cause a dramatic and rapid increase in body temperature. If our natural compensating mechanisms are overwhelmed, this increase in temperature can lead to heat stroke or death.

For now, the FDA and DOD continue to study many of these substances, including DMAA. Although these products remain legal, many have been placed on the U.S. Anti-Doping Agency's banned list. The DOD has promised that better guidance for many of these drugs is forthcoming after the review of past and current research.

Although the use of vitamins and certain amino acids are encouraged for most individuals, the use of performance-enhancing substances and over-the-counter weight loss supplements is not recommended. If you feel you must use these products for any reason, consult your personal physician, as he or she can discuss the pros and cons of each product as it pertains to your specific health and set of circumstances.

In the meanwhile, there is no substitute for a well-balanced meal, good rest and moderate exercise to achieve your weight or performance standards. Try not to bet your life on the alternative.

Once is All it Takes

1ST LT. TAMMI COLEY
B Company, 1st Battalion, 145th Aviation Regiment
Fort Rucker, Ala.

The night began innocently enough — just a group of friends celebrating graduating Army flight school. We started with dinner and ordered a round of beers. I was driving that night, and I knew (or thought) one beer wasn't going to get me drunk. As we continued to eat, we ordered another round of beers. With a stomach full of food and two beers, I felt sober and drove everyone to our next location, where the celebration continued.

When the night finally ended, my buddy asked me, "Are you OK to drive?" Despite the amount of alcohol I drank, I thought I felt fine and believed my blood alcohol concentration was under the legal limit. I am embarrassed to say I was wrong, which I found out when I was pulled over by the local police and later arrested for driving under the influence.

Prior to my arrest, I attended the mandatory safety briefs. For me and most of my classmates, briefs were just a check-the-block necessity to have our leaves and passes approved. I can tell you what my classmates were thinking during the brief — if they were even listening. It was either, "I am so lucky I didn't get caught last weekend," or, like myself, "I rarely go out, and when I do, I'm never the one

WHAT'S IT WORTH?

MAJ. JENNIFER CLARK
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Parties are fun. Getting a DUI is not. Putting your life, your passengers' lives and the lives of innocent motorists and pedestrians at risk should be deterrent enough. If you are lucky enough not to have injured anyone, you may still face a variety of administrative or punitive actions because of the DUI.

If a Soldier receives a DUI on post and is not prosecuted by civilian authorities, the command may pursue punitive (Uniform Code of Military Justice) action ranging from an Article 15 to a trial by court martial. If a Soldier receives a DUI off post, he or she will face prosecution from the civilian authorities. However, this would not prevent the Soldier's command from pursuing punitive action for associated conduct not prosecuted by civilian authorities such as Article 133, Conduct Unbecoming an Officer and Gentlemen; Article 134, Disorderly Conduct; or Article 95, Resistance of Arrest.

A General Officer Memorandum of Reprimand is automatically initiated and the chain of command will make filing recommendations. They could recommend permanent filing, which means the reprimand goes into a Soldier's official military personnel file and follows them wherever they go. There are other possible administrative actions the command could take regardless of the Soldier's prosecution by civilian authorities or having received UCMJ action. Examples are a non-transferable suspension of favorable action — a flag — lifted when court proceedings or UCMJ is served and complete; revocation of pass and/or driving privileges; a Relief for Cause evaluation report; a bar to reenlistment; and if convicted by a civilian court, an administrative reduction in grade.

Injury due to driving under the influence may result in a finding of not in the line of duty - due to own misconduct. Soldiers could find themselves losing pay and/or a variety of veterans administration benefits.

Is driving under the influence of drugs or alcohol worth it? Be smart and always make sure you have a designated driver.

driving." Unfortunately, I am living proof that once is all it takes.

As many of us look to our peers for advice, guidance and council, I am writing this to you, Soldier to Soldier. My hope is to inspire at least one other Soldier to not make the same decision I did when I chose to get behind the wheel after drinking alcohol.

I have the same dream as many of you. When I was 8 years old, I told my father, "Daddy, I want to be an officer in the Army and I want to fly helicopters." As a 67J aeromedical evacuation officer, my path to flight school may have been slightly different than some aviators, but it was no less difficult. I took the same flight physical as everyone else, assembled a packet that was reviewed by a flight board and I waited patiently … anxiously for the results. When I received the phone call congratulating me on my acceptance, I thought I had finally achieved my childhood dream. That dream came to a screeching halt the night I drove while intoxicated.

I am now facing a General Officer Memorandum of Record, which will most likely end my career. No more flight school, no more promotions and no more Army. As I write this, my future in the armed services is uncertain.

Although the end of your career may seem like the end of the world, DUIs can have more serious consequences. How many Soldiers do we have to lose to drunk driving? How many innocent Family members do we have to lose after being hit by a drunk driver? I consider myself lucky that a police officer pulled me over before I wrapped my car around a tree or hit an innocent motorist driving the opposite direction. Could you bear the guilt of taking someone's life?

There is also the organization as a whole to consider. We are an Army at war. I was chosen above my peers to fill a slot as a 67J. As a result of my mistake, there is the very real possibility that I will be separated from the Army, and this slot will go unfilled. Consequently, there may be one less pilot available to evacuate a wounded Soldier.

Unfortunately, many of us try to subjectively judge our level of impairment without knowing exactly how a BAC of .08 feels. I know now that if I had even the slightest doubt of my sobriety, I should have called a taxi and never subjected my friends to ride in my vehicle or risked my career. It didn't matter whether I had one beer or 10 before getting behind the wheel. It wasn't worth taking the chance.

While people might react differently to alcohol, we can't use the excuse of not feeling drunk to justify a stupid mistake. Our careers, our lives and the lives of those around us are at risk and are worth far more than any taxi fare. As a Soldier, I can tell you from first-hand experience.«

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Don't Get Ripped

Growing up in northern Maine, I didn't have much experience with swimming in the ocean. My family had taken a handful of camping trips to Maine's coast, but my swimming experience was associated with lakes, rivers or pools. However, I had seen a Discovery Channel show about the dangers of rip currents and tips on how to get out of them. Years later, I recalled these tips when I found myself caught in a dangerous situation.

CHIEF WARRANT OFFICER 3 MEAGHAN FALONE
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Maine Army National Guard
Bangor, Maine

A few friends invited me on a weekend trip to Panama City Beach, Fla. At the time, we were about six months into our flight school training at Fort Rucker, Ala., and had definitely earned a break from our studies. I packed an overnight bag and we headed south to the beach.

The next morning, we headed out onto the beach. I was feeling a little under the weather from the previous evening's activities, so my goal for the day was to lie in the sun and relax. I was doing just that when the guys asked me to join them in the water. I knew I wasn't a strong swimmer and the waves were pretty large, but I figured I'd just jump in for a second to cool off.

At first, we were laughing and letting the waves crash into us. I didn't intend to go in past where I could touch the bottom with my feet, but as I was jumping through a wave, I lost my balance. It all happened so fast that I was oblivious to the fact that the current was pulling me out. I looked over at my buddies and one of them asked if I was OK. They were farther out than I and looked to be turning to come back to shore. I answered that I was fine. I decided I should also head back to shore. That's when I realized I was in trouble.

Waves began crashing over my head. I was swimming and swimming but wasn't going anywhere. One of my friends saw me struggling and yelled for help, but the sound of the waves muffled his cries. I joined in, trying not to panic, remembering what I had watched on television about rip currents. However, the waves were relentless and wouldn't stop crashing over my head. I didn't know how much longer I was going to be able to stay afloat. The guys were yelling words of encouragement. I tried swimming parallel to the shore, but I still wasn't moving.

I then started to panic. I thought about a discussion we had in the car on the drive down about how being an aviator is one of the most dangerous jobs in the Army. I thought, "How ironic, I'm going to die, but the cause is not going to be related to flying. All of this work in the Army was for nothing." I then thought of my Family.

As my head went underwater, I thought, "This is it." I was exhausted from fighting the current and out of ideas on how to save myself. Suddenly, someone grabbed my arm, pulled me to the surface and told me to relax. It was one of my friends, who, fortunately for me, had been a lifeguard prior to flight school. He put his hands on my waist and pushed me up out of the water so I could breathe. We eventually made it to shore, where he helped me to my towel. I was in complete shock. I had to go to the car and sit for a few minutes to compose myself.

If you get caught in a rip current:

- Remain calm to conserve energy and think clearly.
- Don't fight the current. Swim out of the current in a direction following the shoreline. When out of the current, swim toward shore.
- If you are unable to swim out of the rip current, float or calmly tread water. When out of the current, swim toward shore.
- If you are still unable to reach shore, draw attention to yourself — face the shore, wave your arms and yell for help.
- If you see someone in trouble, get help from a lifeguard. If a lifeguard is not available, have someone call 911. Throw the rip current victim something that floats and yell instructions on how to escape. Remember, many people drown while trying to save someone else from a rip current.

I should have done many things differently that day. I'm lucky that I'm able to share my story; some folks don't get the chance.

FYI

Water-related fatalities were on the rise during fiscal 2011, with 11 Soldiers losing their lives to drowning or boating accidents. The U.S. Army Combat Readiness/Safety Center developed the Water Safety interactive website to promote water safety awareness through user challenges, informational videos and links to related safety resources. The site provides realistic challenges and scenarios Soldiers and their Family members are likely to encounter while at the beach, lake, pool or other bodies of water. Visit https://safety.army.mil/safetycity to learn more.

DID YOU KNOW?

Before your next beach trip, keep the following tips in mind:

- ***Get yourself familiar.*** Google the beach you're visiting so you can find information such as if there is a lifeguard on duty, the condition of the water, etc.
- ***Pay attention to the warning flags.*** Know what the different colors mean, as well as your swimming experience level.
- ***Trust your instincts.*** If it doesn't feel safe, it probably isn't safe.

Visit the National Oceanic and Atmospheric Administration website at http://www.ripcurrents.noaa.gov/tips.shtml for more rip current safety tips.

For years, the U.S. Army has performed maintenance on rotary-wing aircraft deployed in the field, including war-threatened areas around the globe. In the field, it is standard practice for maintenance personnel and flight crews to climb on top of CH-47 helicopters to inspect and service the rotor blades. This practice was necessary for accomplishing the mission, but it came with unsecured high-risk maneuvers, resulting in serious injuries and even fatalities.

Safe and Secure

BRIGITTE ROX
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Army aviation flight crews and maintenance personnel at Fort Rucker, Ala., have developed a safer way to get the job done. Their approach has been to design an anchor connector that locks on a Chinook rotor head with the blades still in place. This provides maintenance crews an anchor point for attaching a full-body harness.

In the field, crews often don't have the benefit of aircraft platforms or overhead anchors for tying off, making their task challenging. Additionally, environmental conditions don't lend themselves well to providing flat nonslip walking surfaces. The rugged working conditions have contributed to too many accidents involving personnel falling from CH-47s.

The Fort Rucker anchor connector dramatically increased the sense of stability and engaged the maintenance crewmember's focus on the mission. While providing field maintenance support, a crew from the Corpus Christi Army Depot recognized this device as a best safety practice when they saw it used at Fort Rucker. CCAD is an Occupational Safety and Health Administration Volunteer Protection Program Star Site, continuously finding the safest way to get the job done. The CCAD crew noticed the device could not be used when working with the rotor blades removed from the rotor head. This limitation and other related factors were studied by a cross-discipline CCAD team of tool engineers, craftsmen and safety professionals. The result was a redesigned, deployable anchor system with the dual-purpose versatility of functioning on the CH-47 rotor head with or without blades attached.

The anchor connector is a double-ended tubular construction with a central flange section for attaching the limiter of the body harness rig. The tube and flange material is aluminum 6061-T6, known for both strength and lightness, making the anchor relatively easy to handle. Outer diameters of the body are precision-milled for inserting into the pitch housing of the rotor head with or without the blade pin installed. The central flange, where the limiter connects, also functions as an integrated carry handle. Polytetra-fluoroethylene rings are seated at either side of the flange to prevent metal-to-metal impact and abrasion.

The anchor connector is designed for use by one person as a part of a personal fall arrest system. It must only be used in the manner indicated in the instruction manual provided with CCAD's CH-47 rotary-wing head fall arrest anchorage connector kit. The rated working load of the anchor system is 400 pounds. The complete kit includes a CH-47 anchor connector, a fall arrest limiter, a body harness, a carrying case and an instruction manual.

The fall arrest anchorage connector is a fully deployable tool with lifesaving potential. The goal of CCAD now is to include the fall arrest anchorage connector as standard gear for CH-47 maintenance crews. When faced with the situation of climbing onto CH-47s, crews can get the job done with a sense of safety and security.

> "In the field, **CREWS** often **DON'T HAVE** the benefit of **AIRCRAFT PLATFORMS** or **OVERHEAD ANCHORS** for tying off, making their task **CHALLENGING.**"

Boating in a Bronco

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It was the start of another beautiful weekend. My wife and I arose at a leisurely hour and loaded our Bronco II with all the things we thought we'd need for a weekend at the family farm. At the time, I was stationed in San Antonio, and the farm was located two hours away. We'd been married three years, and our first daughter was 8 months old. The weather that morning wasn't the greatest, being overcast with frequent showers. However, we loaded our vehicle, fed our daughter and took off.

After an uneventful drive around the city, we merged onto Interstate 10 and continued east. Our daughter had already fallen asleep in her car seat in the back. The rain began coming down harder and my wife and I got into a somewhat heated "discussion," which distracted me from my driving. As a result, I lost track of how fast we were going. As the rain worsened, so did our argument and I picked up speed, hitting 74 mph as I topped a rise. My tires suddenly lost traction with the pavement and began riding on a thin layer of water. I was hydroplaning! What happened next probably didn't last more than 20 seconds, but it felt like an eternity.

I had no control over the vehicle as we went down the rise. Regardless what direction I turned the steering wheel, the Bronco remained in a slow spin. Time seemed to almost freeze and I was acutely aware of my thoughts and actions. I looked over at my wife and yelled, "I have no control!"

The vehicle headed toward the median and spun through the soft grass, sending mud and grass flying everywhere. I was afraid one of my tires might catch an edge on a firmly embedded rock, stick or something else protruding above ground. That was a particular concern because the Bronco's high center-of-gravity made it prone to rollover accidents. Ahead I could see a 6-foot-wide drainage culvert with a 4-foot drop-off. As we got closer, I was expecting us to hit the drop-off and flip over. Fortunately, the Bronco stopped just short of the culvert.

I looked at my wife, took a deep breath, said a quick prayer of thanks and relaxed my white-knuckle grip on the steering wheel. Even though we'd been out of control and attempting to steer didn't help, I'd still hung on for dear life. I leaned over to hug my wife and we both checked the backseat to see if our daughter was OK. Surprisingly, she was still sleeping soundly. Exiting the vehicle, I did a walk around and saw the only damage was some mud and grass on our Bronco. I then locked the hubs and drove back onto the interstate toward our destination.

When we arrived at the farm, my father-in-law, who was a former Air Force fighter pilot, told me about a hydroplaning accident he had in an F-101 jet fighter. He said he was landing at Ellington Air Force Base, Texas, on a rain-drenched runway. As he touched down, his tires began riding on a thin layer of water, making the aircraft's brakes useless as he

> "**REGARDLESS** what direction I **TURNED** the steering **WHEEL,** the Bronco remained in a **SLOW SPIN** as it **WENT DOWN THE INTERSTATE.**"

tried to decelerate. He was still going at a pretty good clip when his tail hook failed to grab the barrier and he ran off the end of the runway. Another pilot in my father-in-law's squadron was a NASA test pilot doing research on hydroplaning. My father-in-law learned that the minimum hydroplaning speed equals nine times the square root of your tire inflation pressure in pounds per square inch.

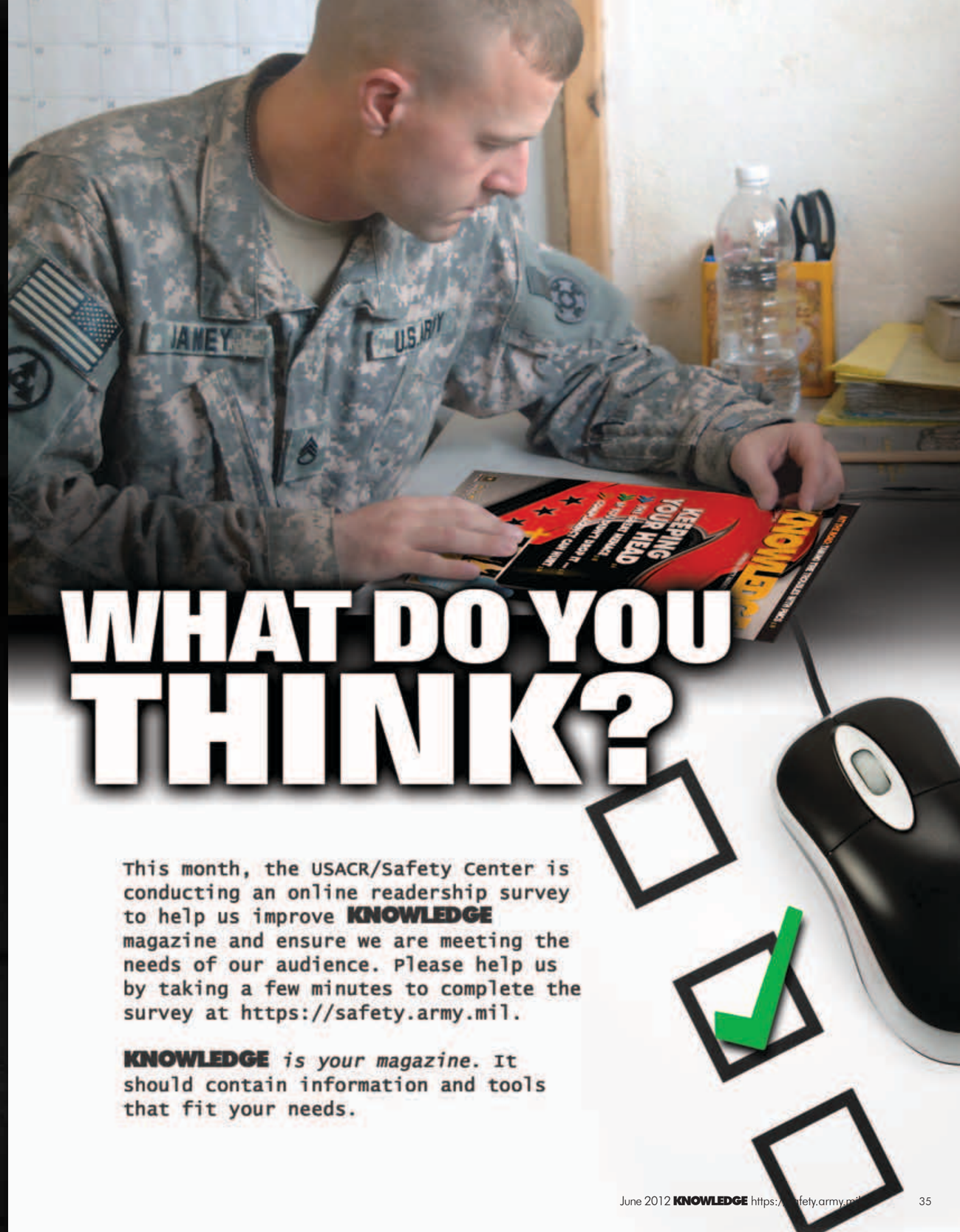
For most automobiles, the recommended tire pressure is between 35 and 40 psi. This means when driving on wet roads, your maximum speed should be less than 54 mph. You can calculate this by using 36 psi as your tire pressure, taking its square root, which is 6, and multiplying it by 9 to come up with 54 mph.

To drive safely in wet and rainy conditions, reduce your speed to below 54 mph for your protection as well as others. Remember, it only takes a second before you're no longer in control.

WHEN THE ROADS ARE WET AND WILD

- **Prevent skids by driving slowly and carefully, especially on curves. Use a light touch when steering and braking.**
- **If you do find yourself in a skid, remain calm, ease your foot off the gas and carefully steer in the direction you want the front of the car to go. You must be prepared to turn the steering wheel repeatedly until your vehicle is traveling in a straight line. For cars without anti-lock brakes, avoid using your brakes if possible. If your car has ABS, brake firmly as you steer into the skid.**
- **Avoid hydroplaning by keeping your tires inflated correctly. Maintain good tire tread. (*Editor's note: The old standard of sticking a penny into your tread to see if it touches Lincoln's head may not be the best advice. Check out the stopping tests at http://www.tirerack.com and consider using a quarter instead*).**
- **Don't put off replacing worn tires. Slow down when roads are wet and stay away from puddles. Try to drive in the tire tracks left by the cars in front of you.**
- **If you find yourself hydroplaning, do not brake or turn suddenly, as this could throw your car into a skid. Ease your foot off the gas until the car slows and you can feel the road again. If you need to brake and your vehicle doesn't have ABS, do it gently with light pumping actions. If your car has ABS, then brake normally. The car's computer will automatically pump the brakes much more effectively than a person can do.**
- **A defensive driver adjusts his or her speed to the wet road conditions in time to avoid having to use any of these measures.**

Editor's note: Information reprinted with permission from the National Safety Council.



WHAT DO YOU THINK?

This month, the USACR/Safety Center is conducting an online readership survey to help us improve **KNOWLEDGE** magazine and ensure we are meeting the needs of our audience. Please help us by taking a few minutes to complete the survey at https://safety.army.mil.

KNOWLEDGE *is your magazine*. It should contain information and tools that fit your needs.

AN ACCIDENT WAITING TO HAPPEN

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Back in the summer of 2008, I was home for a little rest and recuperation from Iraq with a long honey-do list, including some projects I wanted to accomplish myself. Living in Alaska, my first priority was to install a wood pellet stove in an effort to help my wife endure another Alaskan winter. My second project was to build a 12-by-12-foot shed for my toys — an all-terrain vehicle, snowmobile and lawnmower.

As I began working on the shed, I had no idea what was in store for me. I had some construction experience, but I had never built anything this large by myself. I found some plans online and researched all of the building techniques I needed for the project. While downrange, I mentally "built" the shed many times and was confident I had the tools and expertise needed to complete the project.

With all the materials in hand, I began building. Everything started well, except I severely underestimated the amount of time I needed to complete each task. After finishing the floor and framing the walls, I turned my attention to the roof trusses. This is when I encountered my first near miss.

To reach the trusses, I stood on the top step of my 6-foot stepladder, which was positioned on the newly built floor. I rationalized that I could mitigate the risk of standing on the top step by using the top plate of the completed wall for balance. What I didn't expect was that in the process of struggling to nail the two trusses together, I wiggled the ladder so now only three legs were still on the floor. The fourth leg was hanging over the edge, touching nothing!

> "The Consumer Product Safety Commission **REPORTS** that more than **90,000 PEOPLE** receive emergency room **TREATMENT** for **LADDER ACCIDENTS** each year."

Realizing my predicament, I attempted to go down the ladder, keeping my weight back and away from the floating leg. No luck; with my first step, the ladder tipped over. Fortunately, I was still holding on the completed truss assembly and didn't fall. As I was hanging there, a nail that was sticking out caught my sweatshirt. Thankfully, as I dropped to safety, the sweatshirt tore instead of holding me hostage.

Unfortunately, my second near miss wasn't far behind the first. With the roof constructed, my next task was to cover it with felt paper and architectural shingles. Laying the first couple courses of shingles was the tricky part. I borrowed several ladders and was able to line them up side-by-side across the 14-foot span of the roof. This allowed me to step from ladder to ladder — instead of climbing up and down — as I worked my way across the roof applying the base course of shingles. This worked fine until I got in a hurry, stepped wrong and missed one of the ladders. However, I was able to catch myself on the roof and prevent a fall. Other than a scraped arm and having to change my shorts, I escaped uninjured.

By shortcutting safety protocols to complete my project, I narrowly missed injury not once, but twice! Remember, safety guidelines are in place for a reason. The Consumer Product Safety Commission reports that more than 90,000 people receive emergency room treatment for ladder accidents each year. Don't be one of those statistics. Never step on the top step or bucket shelf or attempt to climb or stand on the rear section of a stepladder.

Do-it-yourself projects can be rewarding and save you money. But if you don't take precautions and factor safety into your project, can you afford the consequences of an accident?

DIY HOME SAFETY CHECKLIST

Use a checklist as a guide to help with the do-it-yourself projects you are tackling in and outside your home. This checklist is not all-inclusive; you can visit the Safe Kids USA website at http://www.homesafetycouncil.org/ to learn more about ways to protect your home and Family.

CHECKLIST	
Have you read the owner's manual for the specific tools you will be using? KNOW THE TOOL: This point will ensure you use the tool properly and safely.	
Is it the proper tool for the job? Forcing a tool to do something that it was not intended to do can result in an accident.	
Did you examine each tool for damage before using it? Torn electrical cords exposing wires can cause electrocution; a broken handle can send a hammer head flying into the air, striking yourself or someone standing near your project.	
Are you wearing the proper personal protective equipment for your project? Dropping a board, power drill or saw on your foot while wearing flip-flops can cause a serious foot injury.	
Do you have a clean and uncluttered work area? Slipping or tripping hazards can cause you to fall onto tools or the ground, resulting in broken bones or puncture wounds.	
Are you working in a damp, wet area or in standing water while using an electrical power tool? Keeping cords and tools away from these areas will prevent electrical shock and electrocutions.	
Are you working in an area that has combustible materials or flammable liquids (cloths, gasoline, paint thinners, etc.)? Placing an electric drill with a hot drill bit or a hot saw blade on or near combustibles and flammables can cause a fire. These can also cause a serious burn to you.	
Will you use a ladder during your project? Make sure the ladder is in good working condition.	
Is the ladder erected on a level surface? If your ladder is positioned on an unstable area, it could tip over, causing you to fall.	
Is your extension ladder positioned properly? Use the 4-to-1 rule for extension ladders. For each 4 feet of distance between the ground and the upper point of contact (such as the wall or roof), move the base of the ladder out 1 foot.	
Is your ladder placed near high-voltage electrical wires or cables? Metal ladders contacting these wires will cause an electrocution.	
Do you have local emergency numbers available and posted? If an accident does happen, you don't have time to look for the phone number of your emergency agency.	

Family engagement Kit

https://safety.army.mil

On the home front, a Soldier's "battle buddy" is often his or her Family. Check out the new Family Engagement Kit to learn how you can look out for the safety of your Soldier. The kit features a variety of tools, including videos, real-life stories, resources and tips to keep your Soldier safe.

Adhere to Checklists

NAME WITHHELD BY REQUEST

It took 15 years in the cockpit, but I have become a born-again believer in the importance of checklists and procedures. I once followed them religiously, but over the years, as I became a skilled pilot, I no longer needed them — or so I thought.

I'd been back in the fleet for two weeks after an absence of two years. I'd been flying every day and relearning tactics and my aircraft. There I was, hanging onto the vertical stab — wind rushing through my hair and the scream of the engines (as well as my electronic countermeasures officer) ringing in my ears. I was befuddled. How did I forget to perform another mission-critical item? How did I get so far behind the aircraft? As I sat alone in my room, I thought back to a night long ago ...

It was during a recovery that was winning high marks for buffoonery. The room was very quiet as the Commander, Air Group muttered and swore. Finally, as the recovery was completed, the CAG turned slowly to the assembled group of commanders, executive officers and department heads and growled, "The most dangerous SOB on that flight deck is a new XO." We all nodded sagely. I had no idea what he was talking about.

numerous distractions and low proficiency is no way to go through a line, period.

There was no great epiphany. I should have expected it. When I left the cockpit two years ago, I was a seasoned aviator, current in my warfare specialty and proficient. I could juggle and compartmentalize the responsibilities of a strike leader, instructor and department head. While I was confident, I was not complacent. Now back in the cockpit without the proficiency, situational awareness or confidence of two years ago, I made two important discoveries. I depended on the habit patterns I had developed over the years and, unfortunately, I had forgotten many of them.

This is where my renewed faith in checklists and procedures came in. Good habit patterns can be used as a template to overlay on a mission to prioritize and order tasks. They serve as an internal master caution panel. Break a

awareness, they can point to something unsafe or adverse to the mission. However, this ability is perishable, and the longer you are out of the cockpit or away from certain missions, the less reliable these habits may be. Some examples include forgetting the fuel dumps are on, failing to complete combat checks as the strike pushes or starting the descent out of the marshal stack with the incorrect radios or navaids selected. All these demonstrate the danger of relying on habit rather than checklists.

Habit patterns take time and discipline to develop. When these habit patterns are lost or corrupted, you often don't realize it until it's too late. They have their place in the development of experienced aviators because tactical aviation is a complex and dynamic environment. Anything that can increase one's ability to process data and maintain situational awareness should be embraced. In our profession,

> "I was **BEFUDDLED.** How did I **FORGET** to **PERFORM** another **MISSION-CRITICAL ITEM?**"

Now I understand. A new nugget may be green, but he knows enough to ask questions and follow a checklist. Someone who remembers having been there and done that needs to have a large risk management bull's-eye painted on his helmet. Managing high expectations,

habit pattern and a series of intuitive warnings sound: the nagging, vague uneasiness of having forgotten something; the butterflies in the gut; and the hair standing at attention on the back of your neck. When habits are based on checklists, procedures, system knowledge and situational

the intuitive answer is not necessarily the correct answer and often there's enough pressure to shrink one's brain to the size of a peanut. It's an environment made manageable by the adherence to checklists and procedures.

The summer of 1996 changed my perception of invincibility. I was only 16 years old, but I learned an important lesson that forever changed my attitude about wearing seat belts. Until then, I'd worn seat belts because it was the law, but I'd never thought about why they were important.

My Brother's Life

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It was the middle of summer and my best friend, Tom, and I had received our driver's licenses a few months earlier. It was an exciting time because we were now able to do things we couldn't before. Growing up without fathers, we didn't get to go on fishing trips often. It had been quite a while since Tom and I had gone fishing together, so we decided to take advantage of our newfound freedom.

The lake was only 45 minutes away, so we left after work on Friday to find a good overnight spot and get in some early morning fishing. Everything went according to schedule until my older brother, "DeeCee," and his friend, Jim, joined us Saturday and decided to spend the day fishing with us. The lake didn't offer much shade and by 4 p.m. we were out of water. Fortunately, there was a store about 15 minutes down the road.

Because Jim and DeeCee hadn't brought any water or supplies, they felt obligated to accompany Tom and me to the store. Tom's standard cab Toyota only seated two, so Jim took his Ford Ranger and DeeCee rode with him. Jim typically drove like he was racing in the Baja 1000. While he'd gotten his license the year before and had more experience driving, the best way to describe his attitude about safety was "complacent."

Jim was ahead of us as we drove toward the store. The lake was located on a high plateau, so the road to the store descended the plateau, winding through a series of small hills. Parts of the road had so many curves that it was hard to see what was ahead. When Jim decided to race through some of those, we followed at a slightly slower pace.

We were halfway through the winding portion of the road when Jim hit a patch of dirt from a road construction project and lost control. He overcorrected to the left and then to the right and ran off the road. Sliding sideways on the dirt shoulder, Jim's Ranger went into a small drainage ditch and overturned.

Neither Jim nor DeeCee were wearing seat belts. As the pickup rolled, I saw my brother's head and right arm fly out the passenger-side window. If the truck hadn't stopped rolling when it did, I'm certain he would have been killed. When I got to the Ranger, I was very surprised no one was severely injured. Still, the memory of centrifugal force trying to fling my brother out of the truck haunts me to this day.

Watching my brother almost get killed that day made a believer out of me. I realized that when it comes to seat belts, it's not just about following the law. It's about staying alive.

GET BELTED — IT'S GOOD FOR YOU!

Pickups are popular in Montana, so the state's Department of Transportation offers the following safety information to pickup owners.

- **Seat belts and air bags are meant to work together. The presence of air bags in a vehicle doesn't mean seat belts are unnecessary.**
- **Seat belts protect the head and spinal cord from impacts inside the vehicle, such as with the steering wheel and windshield.**
- **Buckling up on every trip — not just the long-distance ones — can save your life.**
- **Pickups have a high fatality rate because occupants are less likely to wear seat belts and pickups and SUVs are more likely to roll over than passenger cars.**
- **For light truck occupants, safety belts reduce the risk of death by 60 percent and moderate-to-critical injuries by 65 percent.**
- **Restraints prevent ejections. Ejected occupants are four times as likely to die and 14 times as likely to sustain spinal cord injuries.**

DID YOU KNOW?

New Hampshire is the only state without a mandatory seat belt law.

LOST

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, email safe.knowledge@conus.army.mil.

AVIATION

AH-64D

CLASS A

- Both crewmembers were injured when the aircraft crashed en route to the base following mission completion. The tailboom separated from the aircraft upon impact.

CLASS B

- The crew received a No. 2 Engine-OUT indication during an ATM hover maneuver at 8 to 11 feet above ground level. The pilot in command assumed the controls and landed the aircraft without further incident. The engine failure resulted in high-side damage to other components, including NR overspeed.

CLASS C

- The post-maintenance test flight inspection revealed damage to the No. 1 engine cowling, which came loose in flight.
- The crew experienced a bird strike during ferry flight and executed an emergency landing. The aircraft sustained damage to one main rotor blade, resulting in separation of a one-foot section. Replacement was conducted onsite, and the aircraft returned to home station.

CH-47F

CLASS C

- Postflight inspection revealed ramp damage. The ramp is suspected to have contacted a rock during a night vision goggle landing to an HLZ.

HH-60L

CLASS C

- The VHF antenna penetrated the undercarriage when the aircraft settled into soft terrain during environmental training. The damage was found during a follow-up maintenance inspection.

OH-58D(R)

CLASS C

- The crew experienced a partial engine failure during a maintenance test flight and landed. Inspection revealed the engine compressor had ingested a mirror that was left in the plenum chamber.

UH-60L

CLASS C

- The aircraft had been used for environmental training and dust landing iterations. Postflight inspection revealed a hole in the intermediate gearbox cover. The crew reported no indications of contact with an obstacle.

EO-5C

CLASS A

- The aircraft contacted the runway with the landing gear in the stowed position during a demonstrated emergency procedure, resulting in damage to the undercarriage.

LOSSES AVIATION — FISCAL 2012 Class A/Fatalities thru April 2012

ATTACK	3/0
RECON	1/4
UTILITY	3/1
CARGO	3/0
TRAINING	0/0
FIXED-WING	1/0
UAS	2/0
TOTAL	13/5

as of May 6, 2012

UAS

RQ-7B

CLASS B

- The crew experienced a GEN FAIL during flight, followed by loss of link. The aircraft crash landed and was deemed unrecoverable.
- The operator lost link following a missed approach. The UA was destroyed after crashing into a mountainside in a military training area.

LOSSES GROUND — FISCAL 2012 Class A/Fatalities thru April 2012

AMV	11/8
ACV	5/3
PERSONNEL INJURY includes weapons-handling accidents	13/12
FIRE/ EXPLOSIVE	3/2
PROPERTY DAMAGE	1/0
TOTAL	33/25

as of May 6, 2012

GROUND

Other

CLASS A

- A Soldier was killed when the leased non-tactical vehicle he was riding in overturned after the driver swerved to avoid another vehicle. Four of the other NTV occupants, also Soldiers, were injured. All of the occupants were wearing seat belts.
- One Soldier was killed and two others injured when the officially leased vehicle they were passengers in struck a telephone pole. The local national driver of the vehicle was reportedly driving above the posted speed limit on a wet road. Seat belt use was not reported.

Personnel Injury

CLASS A

- A Soldier was killed and his wife critically injured when they were struck by a commuter train as they walked on the tracks over a railroad trestle.

DRIVING

POV

CLASS A

- Two Soldiers riding as passengers died when their intoxicated civilian driver went off the road in a curve and struck a tree.

POM

CLASS A

- A Soldier was killed when he was hit head-on by a driver who'd pulled into his lane while attempting to pass other vehicles.
- A Soldier was killed when he collided with a vehicle as it was turning left onto the roadway. The Soldier was wearing a helmet, but was operating with an expired learner's permit and hadn't registered his bike on post.

CLASS C

- A Soldier was injured when a vehicle in the oncoming lane turned left and struck him. The Soldier was transported to a hospital, where his left leg was amputated below the knee. The Soldier had completed motorcycle safety training and was wearing the required personnel protective equipment.

LOSSES POV/POM — FISCAL 2012 Class A/Fatalities thru April 2012

CAR	19/18
SUV/JEEP	7/6
TRUCK	2/2
MOTORCYCLE	26/23
PEDESTRIAN	3/3
OTHER* *Includes vans, ATVs, snowmobiles and bicycles	1/1
TOTAL	58/53

as of May 6, 2012 — Fiscal Year 2011: 52 — Three Year Average: 53

Pedestrian

CLASS C

- A Soldier's legs were fractured when he was struck by a vehicle while performing perimeter guard duty on a military reservation.

IS THE SAFETY ON?

The Range & Weapons Safety Toolbox contains information, tools and links related to the safe handling of military and privately owned weapons.

RANGE & WEAPONS SAFETY TOOLBOX

https://safety.army.mil/rangeweaponssafety

SOLDIERS LEADERS CIVILIANS FAMILIES

Take 5 for Boating Safety

- Take a boating safety course.
- Know your boat and the rules of the water.
- Check your boat for all required safety equipment.
- Wear a life jacket and have one on hand for all passengers.
- Don't consume alcohol.
- Check the weather forecast.
- File a float plan with a family member or friend.
- Operate your boat at a safe speed.

Take 5 ... then take action.

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ARMY SAFE IS ARMY STRONG

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VEHICLE PARKING: DON'T FORGET THE CHOCK BLOCKS

KNOWLEDGE

VOL 6 JULY 2012

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

GUIDING TO SAFETY

- DESIGNATED DRIVERS
- REFRESHER TRAINING
- SETTING STANDARDS

WIRE STRIKES

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Beginning this month, **KNOWLEDGE** magazine subscribers will see a 20 percent reduction in the number of copies their units/organizations receive. While the U.S. Army Combat Readiness/Safety Center wants **KNOWLEDGE** to reach as many readers as possible, this action is necessary to trim production and distribution costs without losing any of the valuable safety information contained within the pages of the magazine. We are asking you, as a **KNOWLEDGE** subscriber, to assist us in this endeavor by reviewing your organization's distribution plan to ensure the number of magazines you have requested supports our new target magazine-to-reader ratio of 1:10. You can further help our efforts by letting us know if your unit is deploying or returning from a deployment so we can ensure your subscription follows your unit through the deployment cycle.

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KNOWLEDGE

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

LEADERS SOLDIERS CIVILIANS FAMILIES

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Mission statement: The United States Army Combat Readiness/Safety Center (USACR/Safety Center) supports our Army by collecting, analyzing and communicating actionable information to assist Leaders, Soldiers, Families and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please email comments to **safe.knowledge@conus.army.mil**.

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FROM THE CSM

"The Army is the **FIRST** adult **EXPERIENCE** many Soldiers will have, and we **CAN'T SET THEM UP FOR FAILURE** by acting like children **OURSELVES**."

NCOs: THE BACKBONE OF STANDARDS

There's no doubt noncommissioned officers have one of the toughest jobs in today's Army, but the corps is still going strong after more than a decade at war. Even in the face of extreme challenges, NCOs at every level continue to prove they truly are the backbone of our force, doing great things for their Soldiers every day. I would be remiss as an NCO myself, however, if I didn't talk with you about our continuing issue with enlisted leaders and indiscipline, especially regarding privately owned motorcycles.

In general, I don't like to repeat the same things you've already heard many times, often from me. But this problem is too important to ignore, and it bears repeating that we simply have to get a handle on NCO indiscipline. It's not just their lives on the line — the example they're setting by willfully disregarding the standard also puts their Soldiers at risk.

The numbers from this fiscal year are sobering: Of all motorcycle fatalities recorded through June 1, more than half were NCOs. With the exception of a couple accidents where other drivers were at fault, nearly every incident involved some form of indiscipline, whether speeding, nonuse of personal protective equipment or improper passing of other vehicles. Although we can't watch our Soldiers every minute of every day, we do have control over our own behavior, and the bottom line is an NCO is a leader all the time.

We also have to remember these losses reflect only those NCOs whose risky behavior caught up with them. How many more among our ranks are taking potentially deadly risks every day? There's a difference between an undisciplined Soldier and an indisciplined one. Undisciplined Soldiers haven't been trained to know what right looks like but can be brought to standard in everything they do, including riding. An indisciplined Soldier, however, is one who knows the standard and is trained to it, but consciously chooses to do whatever he or she wants anyway. Even though the majority of NCOs involved in this year's fatal motorcycle accidents had the proper training and the right personal protective equipment, they simply chose not to follow the standard, and that's the textbook definition of indiscipline.

The trickle-down effect of this mentality is particularly dangerous. Our junior enlisted Soldiers are almost invariably young and impressionable. When they see their leaders making bad decisions with impunity, what's to stop them from doing the same? Not counting NCOs, every Soldier killed in a motorcycle accident — and all but three killed in privately owned vehicle accidents — thus far in fiscal 2012 has been a junior enlisted member. This doesn't mean these Soldiers had bad leadership, but it does indicate our NCOs need to step up and take the lead on enforcing standards and modeling appropriate behavior. The Army is the first adult experience many Soldiers will have, and we can't set them up for failure by acting like children ourselves.

I don't mean to be harsh and I'm certainly not saying all, or even most, of our NCOs are indisciplined. But we have a tough problem with at least a few of our leaders, and it must be addressed immediately. From the squad leader to the command sergeant major, we should all be engaged with and looking out for one another's well being, ensuring the duties of leadership are fulfilled both on and off duty. It's not an issue of rank; it's about taking personal ownership of your responsibilities as an NCO, and leaders looking out for leaders as fellow Soldiers.

We're all in this fight together, and I'm here to help any way I can. Please don't hesitate to let me know how I or the USACR/Safety Center can augment your safety efforts. Also keep in mind that with summer in full swing, water-related incidents are sure to increase these next couple months. Please talk with your Soldiers about their plans and reinforce the dangers of alcohol and boating or swimming. Many drowning deaths are attributed to alcohol every year, and its effects can dull the reflexes and judgment of even experienced swimmers.

Thanks again for all your hard work every day — you are making a difference for our Soldiers and our Army. Enjoy your summer, and always play it safe!

Army Safe is Army Strong!

RICK STIDLEY
Command Sergeant Major
U.S. Army Combat Readiness/Safety Center

What Would You Do?

CHIEF WARRANT OFFICER 4 TIMOTHY EDGETTE
Accident Investigations Division
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Our mission was to conduct a multiship air assault of ground forces. We were under night vision goggles with less than 20 percent illumination and below 300 feet above ground level. I suddenly noticed out of the left side of my field of view a set of wires perpendicular to our route of flight. At that exact moment, my left-side door gunner announced, "Wires!"

I took the controls, or at least the cyclic, and nosed the aircraft toward the ground to clear the barely visible set of wires. Simultaneously, I lowered the thrust control lever in an effort to dive/drop the aft rotor system under the wires. Ahead, the narrow valley we were following made an almost 90-degree right turn followed immediately by a sharp left turn.

We were within three miles of our intended helicopter landing zone and there were still several more aircraft, three to five minutes behind our position, intending to use the same valley for their infiltration. Nosing the cyclic forward toward the ground assisted our clearing the wires with the forward rotor head. However, I wasn't as certain about the aft rotor head.

In case you're wondering, the aircraft we were flying was a Chinook. So what would you have done if you were in my cockpit — besides asking yourself, "Where did those wires come from?" or "How come we were not told or warned of those wires?"

There is nothing taught in flight school that can prepare us for this situation. Of course, we did all of the preflight preparations such as reviewing maps and imagery, both digital and paper. We can always recall "all roads have wires" — only there was no road in this valley. We also had no chart update manual map available that depicted those wires.

There I was, flying in a dark valley with 28 passengers and a crew of seven, wondering if we had hit those wires. We were within three miles of our HLZ and a 20-minute flight from the nearest forward operating base. I thought, "Do I reference my technical manual or my -10 checklist with a condensed version of the emergency procedures?" Recalling the underlined steps of an emergency procedure or asking the crew to help me with the -10 checklist would not have helped. The Chinook is not equipped with a wire strike protection system and there are no emergency procedures for a suspected or actual wire strike. Still, we know that regardless of the aircraft size, wires and power lines pose a serious threat to the safety of our crew and aircraft. Therefore, as we rapidly approached the sharp right turn, we were still not confident our aft rotor system could actually clear the wires safely. Given that situation, what would you do?

I chose to land immediately to verify if the aircraft was still airworthy. This was important before I committed the passengers, crew and myself any deeper into the valley beyond the point of no return with a broken aircraft on the verge of coming apart.

There are many accidents involving aircraft hitting wires. We must have the vigilance, maturity and a desire to arrive alive and fight another day. After all, an assault aviator's portion of the mission is just that, a portion of the overall mission. Jeopardizing the passengers and crew with continued flight without ensuring the airworthiness of the aircraft would not have been prudent.

What are we expecting to find once we've landed? What are we looking for to confirm or deny the wire strike? What do we do if we find damage? These are all valid questions. Those thoughts probably crossed my crew's mind, but the decision to immediately land was so fast that it wasn't until afterward that I was able to explain to the crew what just happened.

When we were safely on the ground with little to no moon and/or celestial light, I asked the crew to inspect the aircraft for a suspected wire strike. I instructed them to look for wire wrapped around the

> "There is **NOTHING** taught in flight **SCHOOL** that can **PREPARE** us for this **SITUATION.** Of course, we **DID** all of the preflight **PREPARATIONS** such as reviewing **MAPS** and **IMAGERY**, both digital and paper."

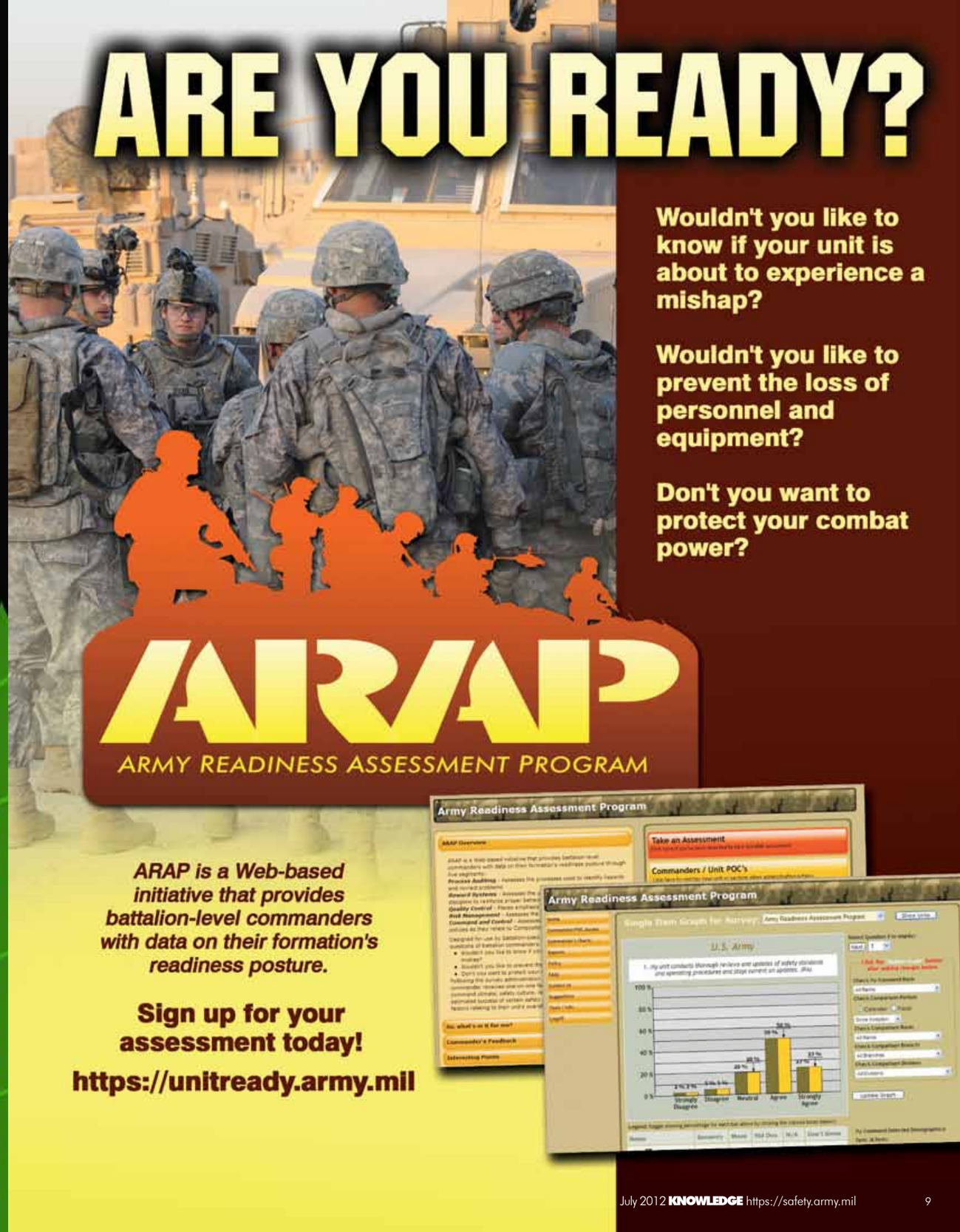
aft head or possibly visible pieces of the aft rotor head out of place because the wire either severed or sheared it. My biggest concern was the aircraft had not exhibited any unusual flight characteristics during the 20- to 30-second flight after the suspected strike. I feared it was just a matter of time before a portion of the aft rotor came apart, making continued flight impossible.

I instructed the crew to use their white lights and inspect the aft rotor head, paying particular attention to the aft pylon area, blades and rotor head. Following a quick but thorough look, we found no visible damage and discussed our next course of action. I decided to conduct a final verification. Although I was confident the aircraft was capable of flight, I wanted to pick it up to a hover, thereby loading the aft head and moving the flight controls similarly to a flight controls check conducted as part of a hover check per Chapter 8 of the -10. This check was to verify the aircraft's airworthiness — the theory being that if something should fail during the hover check, our chances of survival were far greater falling from 5 to 10 feet to the ground than if we were to proceed to the HLZ at 60 to 80 knots and 150 to 300 feet AGL.

I picked up the aircraft to approximately 8 feet and conducted a quick flight controls check. Now more confident that the aircraft was functioning normally, I transferred the controls and we proceeded to the HLZ. Following our infiltration, we returned to our home station/base and shut down the aircraft. With the sun coming up, we inspected the aircraft and noted the forward rotor head had cleared the wires, but there was a scratch found on the aft pylon, No. 1 engine side, which was suspected to have been caused by the wires rubbing along the aft pylon below the level of the rotor system. No repairs or maintenance were required.

Despite the fact the operator's manual does not tell us what to do in the event of a suspected wire strike during a stateside aircrew training manual flight, I believe most aviators would have immediately landed, shutdown and gone over the aircraft with a fine-tooth comb. However, this suspected wire strike was while conducting a combat mission.

What would you have done? Would you have continued to the HLZ? Would you have turned around and flown to the nearest FOB more than 20 minutes away? Or, would you have landed and inspected the aircraft with it running like we did or would you have shut down the aircraft while in a combat zone? We can simulate and discuss a myriad of emergency procedures and unanticipated events that could occur during a flight, but do we really ever ask ourselves what we would do in a similar situation?



DESIGNATED DISASTER

2ND LT. CHRIS FOUNTAIN
Wheeler Army Airfield, Hawaii

It was a Friday night and the four of us were drinking and having a good time at a party. One of my friends, Becky, was our designated driver for the night. Another friend, Al, was getting loaded, while my friends, Mike and Steve, were putting down their fair share, too, albeit at a more responsible rate.

The night was going pretty well until some of the guys — motivated by being a bit too hammered — started getting into fights. Meanwhile, Becky had gotten bored with the party and was sneaking drinks. By the end of the night, everyone was ready to go. We got into our cars and headed home, driving on familiar roads out in the country.

On our way home, we noticed Becky was having trouble driving and swerving a little. We more or less ignored that because Al, who'd had way too much, was distracting us from Becky's driving. She was driving a bit too fast, especially for her condition, lost control, swerved into a ditch and hit a pole. Her air bag opened up, but Al — unbelted in the backseat — was tossed around inside the car. Mike, sitting in the right-front passenger seat, had his air bag inflate, while Steve, who was in the backseat, was in a daze, drifting in and out of consciousness.

After the accident, we all got out of the car. Fortunately, none of us were seriously hurt. We called 911, and emergency responders came out and treated us for our injuries. The police checked Becky and found her blood alcohol concentration was over the legal limit for driving. She was taken to jail for the night and issued a court date for driving under the influence.

Besides the humiliation of being arrested for DUI, Becky had to complete several courses and perform community service as part of her sentencing. She also had to pay a hefty fine, not to mention her car was totaled. Al, although not seriously injured, was scarred for life because he was not wearing his seat belt. Mike and Steve are now against people drinking and driving, even if they've only had just a little bit.

There were some simple lessons to be learned from this experience. First, don't drink and drive; alcohol affects your judgment from the very first drink. Second, don't ride with a driver who has been drinking. Whoever the designated driver is, make sure they're actually sober and haven't been sneaking a few. If you suspect they have, do yourself a favor and call a friend or cab to get you home safely. Be responsible for yourself by knowing your limit and not letting distractions in the vehicle jeopardize your safety or that of other passengers.

Mixing alcohol with asphalt can easily turn a night into a nightmare. Before you get caught up in that, remember you've got three options for the next morning. You can wake up remembering the fun you had. You can wake up with a head-pounding hangover you'd probably gladly forget. Or, you can skip waking up the next morning and just "rest" quietly in the morgue. What's your choice?

Editor's note: The names of the individuals involved in this incident have been changed to protect their privacy.

WHY DIDN'T HE WAIT?

CHIEF WARRANT OFFICER 2 JONATHAN MORRISON
F Company, 1st Aviation Regiment
Fort Riley, Kan.

A great friend of mine was killed in Iraq in 2003. I was a specialist at the time and never could've imagined how the loss of someone I was close to — a noncommissioned officer — would affect me. Together, we entered Iraq and survived the harsh conditions. Driving in the sand with night vision goggles and blackouts on — you name it, we did it. Our unit accomplished a monumental task of driving more than 20 hours nonstop without a single accident. We were vigilant about making safety our top priority.

The days leading up to the death of my friend were very hot. I remember one day the temperature reached 137 F! In heat like that, no one wants to move around. In fact, when it's that hot, it's hard to even think straight. Every thought seems to revolve around who is going to rotate into the cooling tent next. More important thoughts, such as what tools are necessary to perform a potentially hazardous job, seem to fall by the wayside.

On the day of the accident, my friend had a few odds and ends to do, but one task in particular had to be completed. A Heavy Expanded Mobility Tactical Truck tire needed to be changed. My friend, along with another NCO and two specialists, set out to accomplish the mission. The tools needed for the job were typical heavy equipment tools, including a tire cage and a 10-foot extension air hose. Unfortunately, the motor sergeant wasn't at the motor pool and wouldn't be back until later in the day, so they didn't have access to the necessary tools to change the tire.

The four Soldiers needed

DID YOU KNOW?

Personnel must receive training and be qualified to perform tire maintenance. Tire maintenance is a high-risk task, so it is important that personnel conducting this task understand and perform the procedures correctly using the proper tools and equipment. Failing to do so could cost a Soldier his/her life or serious injury. Here are a few safety tips to assist during tire maintenance operations:

- Follow all the steps outlined in the respective technical manuals to include the cautions and warnings.
- Deflate the tire by removing the valve core from the valve stem before attempting to disassemble wheel components.
- Always use a tire safety cage to inflate the tire/rim assembly not mounted on a tire-changing machine that has a positive lockdown device designed to hold the assembly during inflation. When using a tire-changing machine, always follow the manufacturer's mounting and safety instructions.
- Always use an extension air hose (minimum 10 foot) and a pneumatic tire inflator-gauge when inflating tires in a tire safety cage.
- Never lean, stand or reach over the tire/rim assembly during inflation. Remain out of the trajectory of the side ring flange and lockring.
- Never put hands or fingers near the rim flanges or bead seats. Keep all body parts out of the inflation safety cage during inflation. Never overinflate tires; stick to the PSI requirements listed in the TM. If the beads do not seat, deflate, demount and check the tire/rim match. Mount and lubricate according to the instructions.
- Apply composite risk management to all tasks — to include maintenance. Take into account mission criticality, equipment characteristics and environmental conditions.

Useful Resources:

- TM 9-2610-200-14, Care, Maintenance, Repair, and Inspection of Pneumatic Tires and Inner Tubes: https://www.logsa.army.mil/etmpdf/files/040000/045000/045844.pdf
- USACR/Safety Center's Driver's Training Toolbox: https://safety.army.mil/drivertrainingtoolbox
- OSHA Servicing Multi-Piece & Single-Piece Rim Booklet: http://www.osha.gov/Publications/wheel/wheel-chart-booklet.pdf
- OSHA Dismounting and Mounting Tubeless & Tube-Type Tires: http://www.osha.gov/pls/publications/publicationathruz?pType=Industry&pID=319

> "My friend **SURVIVED COMBAT** only to **MEET HIS END** at the unforgiving **METALLIC EDGES OF A SPLIT RIM.**"

TIRE SAFETY CHECKLIST

- Check tire pressure regularly (at least once a month), including the spare.
- Inspect tires for uneven wear patterns on the tread, cracks, foreign objects or other signs of wear or trauma.
- Remove bits of glass and other foreign objects wedged in the tread.
- Make sure your tire valves have valve caps.
- Check tire pressure before going on a long trip.
- Do not overload your vehicle. Check the tire information placard or owner's manual for the maximum recommended load for the vehicle.
- If you are towing a trailer, remember that some of the weight of the loaded trailer is transferred to the towing vehicle.

For more information, visit www.nhtsa.gov or call 1-888-327-4236.

to get the HEMTT's tire changed quickly and didn't want to wait for the motor sergeant to return. They discussed using field expedient methods to change the tire, and my friend brought up an idea he used in a previous deployment. He wanted to use a crane that was attached to the HEMTT to hold down the tire while they inflated it.

After 30 minutes, they had the tire on the split rim and decided to put it back on the truck. They accomplished that task without any problems, but when my friend added more air, the split rim exploded. He wasn't as far away from the tire as he would've been had he been using the 10-foot extension air hose required for the job. The split rim came out with a vengeance, striking my friend in the chest and neck. He died almost instantly. The other NCO was injured — his jaw, shoulder and arm broken. The other two Soldiers suffered partial hearing loss.

My friend survived combat only to meet his end at the unforgiving metallic edges of a split rim. After the fact, I tried to imagine what he was thinking. I never knew him to be in such a rush that he would jeopardize his safety. All I came up with was, "Why didn't he wait?"

Sometimes we make decisions we think will move along the mission faster. However, sometimes those decisions end in a needless loss for the unit as well as for Family members. This was a sad lesson learned. I miss my friend terribly and am proud to have served with him in defense of our country. I hate losing him to such a senseless accident.

FYI

Studies of tire safety show that maintaining proper tire pressure, observing tire and vehicle load limits (not carrying more weight in your vehicle than your tires or vehicle can safely handle), avoiding road hazards and inspecting tires for cuts, slashes and other irregularities are the most important things you can do to avoid tire failure, such as tread separation or blowout and flat tires. These actions, along with other care and maintenance activities, can also:

- Improve vehicle handling
- Help protect you and others from avoidable breakdowns and accidents
- Improve fuel economy
- Increase the life of your tires

STEPS FOR MAINTAINING PROPER TIRE PRESSURE

Step 1: Locate the recommended tire pressure on the vehicle's tire information placard, certification label or in the owner's manual.

Step 2: Record the tire pressure of all tires.

Step 3: If the tire pressure is too high in any of the tires, slowly release air by gently pressing on the tire valve stem with the edge of your tire gauge until you get to the correct pressure.

Step 4: If the tire pressure is too low, note the difference between the measured tire pressure and the correct tire pressure. These "missing" pounds of pressure are what you will need to add.

Step 5: At a service station, add the missing pounds of air pressure to each tire that is underinflated.

Step 6: Check all the tires to make sure they have the same air pressure (except in cases in which the front and rear tires are supposed to have different amounts of pressure).

If you have been driving your vehicle and think that a tire is underinflated, fill it to the recommended cold inflation pressure indicated on your vehicle's tire information placard or certification label. While your tire may still be slightly underinflated due to the extra pounds of pressure in the warm tire, it is safer to drive with air pressure that is slightly lower than the vehicle manufacturer's recommended cold inflation pressure than to drive with a significantly underinflated tire. Since this is a temporary fix, don't forget to recheck and adjust the tire's pressure when you can obtain a cold reading.

SAFETY BEFORE GLORY

CHIEF WARRANT OFFICER 4 ROBERT C. RUSSELL
1st Military Intelligence Battalion (Aerial Exploitation)
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"Dakota" was announced over the Air Battle Net, indicating the flight of four CH-47s with dual shotgun HMMWVs on long lines had reached the release point and would starburst to four separate landing zones. After about one minute of flight, all aircraft lost communication with each other due to the limited line of sight and aged, failing equipment. In zero illumination, I was in the lead aircraft using my limited experience and flight training to find an LZ, which was located along the border of a non-allied country in a very austere environment. Once we delivered the load and our passengers, we exited the LZ en route to the start point. Our plan was to link up with the flight as we returned to the pickup zone for one more trip into the objective area. Just shy of the SP, I heard a broken radio transmission over the ABN: "The HMMWVs are in a pile, but we're OK."

One of the infantryman's mottos is, "Close with and destroy the enemy by fire and maneuver." There is no mission we cannot conduct, no piece of high ground we cannot secure and no objective we cannot conquer — by any and all means necessary. Sometimes these thought processes overextend our abilities. As leaders and Soldiers, we educate ourselves to recognize and ensure we do not put ourselves in vulnerable situations. We must adhere to our knowledge and training and the experience of those around us to ensure we accomplish the mission while taking care of Soldiers. It's an age-old thought, I know; however, this way of thinking has helped us create the most feared military force on the planet.

As with all air assaults, there's a ton of planning that occurs prior to the aircraft reaching the RP. Many different planning techniques and procedures have surfaced over the years. Most factors can be controlled or overcome with some thought and creativity. However, some factors simply cannot be changed. We cannot control the weather, illumination or landing environment. We can engineer better aircraft, night vision goggles, weather reporting equipment and tools to help mitigate risks and ensure crewmember safety and mission accomplishment.

Mitigation seems simple; all we have to do is change times, move our location or change techniques. We hold extensive planning and coordinating meetings to ensure missions are prepared with the expectation that no individual or equipment will be harmed, killed or destroyed. There are times in planning when some risks just cannot be mitigated; these instances require the approval from appropriate levels of command. However, most risk factors can be mitigated in the planning process. We cannot eliminate the risk, but we can definitely reduce the level of severity.

Composite risk management was used extensively during the planning of the aforementioned mission. Great aircraft, global positioning systems, improved NVG and superior imagery enabled the mission to be conducted very close to an unfriendly border. External load training while using NVG was completed in the months prior to execution. This training allowed the pilots to perfect their skills for this extremely difficult long-line external load. Long lines allow the aircrew to increase the distance of the aircraft from the load that hangs below. Hovering over 100 feet while the load remains at 10 feet above the ground increases the difficulty of the maneuver and the need for superior-skilled pilots.

This leaves the weather, illumination and environment to be mitigated. The weather forecast for this particular night was great for aviators, with visual flight rules and visual meteorological conditions. The LZs were chosen with top-notch imagery and overhead video, with few, if any, hazards expected. Lastly was the factor of illumination. All aviators know that it's easier to see with larger percentages of illumination. This night and the time of insertion was a zero-illumination night. Easy mitigation, right? Just move the insertion time later to increase the illumination.

Wrong! Based on that exact recommendation, the planning officer in charge decided to execute the mission while the illumination was zero percent.

Thankfully, all that was lost that night were two HMMWVs. With zero illumination, the damages could have been a lot worse, including crashed CH-47s, dead or injured aircrew members and/or dead or injured infantrymen.

Once back in the PZ, I contacted the crew that jettisoned the load and asked how they felt. The crew assured me all was good and they could continue the mission for the second trip to the LZs. The second insertion went without an issue. By then, 30 minutes had passed and the moon had risen, allowing for 60 percent illumination. It's too bad that a simple and legitimate recommendation was denied for a one-hour time change. We all want success and victory, but don't let the glory of your idea get in the way of safety!

> "**WE** must adhere to our **KNOWLEDGE** and **TRAINING** and the experience of those **AROUND** us to ensure we **ACCOMPLISH** the **MISSION** while taking care of **SOLDIERS.**"

Refresher Training Saved Me

1ST SGT. GEORGE DESROCHERS
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North Kingstown, R.I.

Home on leave during Operation Iraqi Freedom III, my wife and I wanted to do something special. We booked a 10-day dive trip to Cozumel, Mexico, with 16 of our closest friends and Family. Our timeline was tight; I had only 26 hours at home before we had to leave for our vacation. Thinking ahead, my wife had my dive gear serviced and suitcase packed before I even arrived home.

The trip was easy, with just a short layover in Atlanta and then straight to Cozumel. Once we arrived at the hotel, our group agreed to unpack, have a bite to eat, grab our gear and meet at the dock for our checkout dive. Knowing it had been more than a year since my last dive, our friend, Dave, a professional dive instructor, took me aside to review emergency procedures and hand signals. I'd logged more than 250 dives and taken both Professional Association of Diving Instructor advanced and rescue diver courses. I wasn't convinced I needed a mini refresher on diving, but I was too tired to argue.

We did our checkout dives in front of the hotel that afternoon and everything went well. The equipment functioned perfectly and the water temperature was 84 F with unlimited visibility. We saw some spotted eagle rays, schools of jacks and there were huge parrotfish everywhere. There was a hint of anticipation among the group as we were all looking forward to the next day's dive.

The second day started better than the first. On the way to the dive destination, a group of dolphins led the way. For our first dive, we descended to about 90 feet and drifted along the colorful reef. However, about 20 minutes into the dive, my regulator had a catastrophic failure. At first, I wasn't sure what had happened. The water around me was filled

> "The **WATER** around me was **FILLED** with compressed air bubbles and **I WAS UNABLE TO TAKE A BREATH!**"

with compressed air bubbles and I was unable to take a breath! I spat out my main regulator and attempted to clear and breathe off my secondary regulator. With all the air rapidly leaking from my tank, I gave the signal to my wife to buddy breathe. We ascended to the surface and the boat picked us up.

I inspected my equipment and discovered my regulator failed because of unseen cracks in the internal housing. I ended up renting a new regulator from the dive shop and, after good preventive maintenance checks and services on the equipment and a checkout dive, we headed out for more diving. The trip ended up being one of my most memorable — on many levels— and well-deserved vacations.

I'm convinced the refresher training my buddy gave me on the first day saved my life. Even though I was tired and not completely focused, the quick refresher on emergency procedures and hand signals helped me avert disaster. Take it from me — applying composite risk management works in everything we do both on and off duty. We can never give safety a day off, even on vacation.«

DID YOU KNOW?

According to familydoctor.org, most severe dive-related injuries and deaths happen to beginner divers. To be safe, always dive within the limits of your experience and training level. Good rules to follow for safe diving include:

- **Never dive if you feel uncomfortable with your equipment or surroundings.**
- **During descent, you should gently equalize your ears and mask. At depth, never dive outside the parameters of the dive tables or your dive computer (information that helps you avoid decompression sickness).**
- **Never hold your breath while ascending. You should always ascend slowly while breathing normally.**
- **Become familiar with the underwater area and its dangers. Learn which fish, coral and other hazards to avoid so injuries do not occur. Be aware of local tides and currents.**
- **Never panic underwater. If you become confused or afraid during a dive, stop, try to relax and think the problem through. You can also get help from your dive buddy or dive master.**
- **Never dive without a buddy.**
- **Always plan your dive; then always dive your plan.**
- **Be sure your diving equipment can handle the dive you have planned and your equipment is working well.**
- **Don't drink alcohol before diving.**
- **Never dive while taking medicine unless your doctor tells you it's safe.**
- **Diving can be dangerous if you have certain medical problems. Ask your doctor how diving could affect your health.**
- **Cave diving is dangerous and should only be attempted by divers with proper training and equipment.**
- **If you don't feel good or if you are in pain after diving, go to the nearest emergency room immediately.**
- **Don't fly for 12 hours after a no-decompression dive, even in a pressurized airplane. If your dive required decompression stops, don't fly for at least 24 hours.**

For more information on scuba diving, visit familydoctor.org.

CLICK IT FOR LIFE

STAFF SGT. VASIL MENCEV
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A little more than two years ago, a friend of mine was involved in an accident where an oncoming car crossed the centerline and struck his truck head-on. The tremendous impact forces caused by the vehicles' combined 120-mph speeds crushed my friend's truck, trapping him inside for two hours before rescue personnel could free him. He suffered multiple fractures to his feet, legs and knees, and doctors estimated it would be a year before he could walk again.

Medical personnel said if my friend had not been wearing his seat belt, he could have been instantly killed or his spine or neck broken. Despite the advances in automobile safety such as seat belts and air bags, thousands of people are killed and injured in accidents each year. Police officers are confronted daily with reasons why people don't wear their seat belts. Here are some of the most common myths they encounter:

"I don't need a seat belt when I'm traveling at low speeds or going on a short trip." In reality, more than 80 percent of all accidents occur at speeds less than 40 mph. Three out of four accidents occur within 25 miles of home.

"I stand a better chance if I am thrown clear of an accident." Actually, your chances of being killed are almost 25 times higher if you are thrown from the car in an accident. Seat belts can keep you from being thrown through the windshield or sunroof, scraped along the ground or crushed by your own car.

"If I wear a seat belt, I might be trapped in a burning car." Less than one-half of 1 percent of injury accidents involves a fire. If you are not restrained, you could be stunned or knocked unconscious and unable to get out of your car. You are also more likely to be crushed between the floor and dashboard if you don't wear your seat belt.

"If it is my time to go, it won't matter if I am wearing my seat belt." Don't leave your life in the hands of fate to decide whether you live or die. Choose to improve your chances of survival by wearing your seat belts.

Since the invention of air bags, many people believe they no longer have to wear their seat belts. Relying on air bags alone and not using your seat belt is more dangerous than not having air bags at all. Air bags should be considered additional protection, not a replacement for safety belts.

Set the example for your children. If you don't wear your seat belt, chances are they won't wear theirs. Don't jeopardize your children's lives by not restraining them while in the car.

Editor's note: Drivers who choose to not buckle up and rely on air bags to protect them fail to understand the dynamics occurring during a collision, according to the Insurance Institute for Highway Safety. The Institute reports that such drivers tend to move forward in their seats when braking or maneuvering to avoid a frontal collision. This puts them dangerously close to their air bag and more likely to hit it while it is still expanding at its greatest force and velocity. The result is a greater likelihood of serious or even fatal injuries.

> "**SET** the **EXAMPLE** for your **CHILDREN.** If you don't **WEAR** your **SEAT BELT**, chances are **THEY** won't wear **THEIRS.**"

Guiding to Safety

MICHAEL WOOD
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Moving large pieces of equipment in tight spaces requires a properly trained and positioned ground guide. However, it only takes a split second to lose sight of your ground guide, or for him or her to make a wrong move that could result in major damage to a piece of equipment or, even worse, a fatal injury. The Army's equipment is often large and can be awkward to move into position, and rough terrain and adverse weather create extra hazards.

As a new division safety manager on my first deployment, one of the first lessons I learned was to visit the surgeon's and provost marshal's offices before each battle update brief. As a safety manager, you never want the commander to ask you about an injury or accident you don't know about. Reviewing injuries treated by the medical staff and accidents reported in the military police blotter will provide you with information to analyze hazards in your area of operations. This information was invaluable to me as I prepared to brief commanders during the nightly BUB. I was able to talk about incidents and recommend what measures/controls we needed to implement in our

DID YOU KNOW?

Army Regulation 385-10, The Army Safety Program, provides detailed guidance on safe motor vehicle operation. Chapter 11-4 outlines the requirements of using a ground guide. It states:

c. Assistant driver scheduling guidance.
(1) If more than 10 hours are needed to complete operations, commanders will assign to each vehicle an assistant driver who is qualified to operate the vehicle.
(2) Assistant drivers for other operations will at a minimum, be familiar with the vehicle operations and trained for ground guide duties. Other operations that require assistant drivers include—
***(a)* More than 4 hours of the mission are expected to be during darkness.**
***(b)* The need to wear mission-oriented protective posture equipment is anticipated.**
***(c)* Night vision goggles will be worn during the mission.**
***(d)* Travel over unfamiliar terrain will require detailed en route navigation.**
***(e)* Use of a ground guide is anticipated and required.**
***(f)* Deteriorating weather or road conditions are expected.**
***(g)* High-value or mission-critical weapons systems or equipment is being transported.**
***(h)* Other unusually difficult mission conditions are expected.**

***h. Ground guides.* Ground guides are required when wheeled and tracked vehicles are backed, or when moved within an assembly area or motor pool.**
(1) Ground guides will be properly trained in accordance with FM 21–60, Visual Signals; TC 21–305-20, Manual for the Wheeled Vehicle Operator and TC 21–306, Tracked Combat Vehicle Driver Training.

AR 385-10, Chap. 11–10. Army combat vehicle safety guidelines
d. Bivouac and assembly areas.
(4) Operators will move ACVs in motor pools, parking areas, cantonments, assembly, and sleeping areas only when a dismounted ground guide assists. When visibility is reduced, guides will use flashlights to direct vehicles. The TC or VC, driver, and dismounted ground guide will maintain visual contact at all times.

efforts to prevent future mishaps.

After the first few weeks of reviewing the MP blotter, a trend began to develop. The failure to use ground guides was causing minor fender benders with Army motor vehicles as they maneuvered. In hopes of reversing this trend, I stepped up my efforts and provided additional information related to ground-guiding procedures. Unfortunately, our first major accident was caused by failure to use a ground guide.

A wheeled convoy mission began at 7 a.m., traveling a route that included traversing an armored vehicle-launched bridge over a mountain pass, and concluded with a return over the same route after completing the mission. The convoy consisted of four HMMWVs and one HEMTT tanker. The first leg of the mission was completed successfully; but on the return trip at 8:40 p.m., complacency and indiscipline resulted in a fatal accident. Two HMMWVs crossed the AVLB without a problem. However, as the HEMTT attempted to cross, the driver noticed that because of the turn radius and the width of the bridge, he could not make the turn. He made the decision to back up and make a second attempt to line up with the bridge. As he drove onto the bridge, the HEMTT's left-rear wheels slid off, causing the tanker to tumble into a deep gorge and land upside down. The driver only fractured his shoulder, but the assistant driver was killed.

The driver's failure to use a ground guide caused the accident. The day before, a different HEMTT crew completed the same type of mission. It took them four attempts to cross the bridge, but with the use of ground guides, they made it safely. In the Army, we must maneuver equipment in all types of operations, including uploading/downloading equipment on rail cars, lining up for convoys, movement in motor pools and maneuvering on unimproved roads, mountain passes and narrow roads. Ground guiding procedures must be included in your unit's training and used to ensure the personnel and equipment are maneuvered safely.

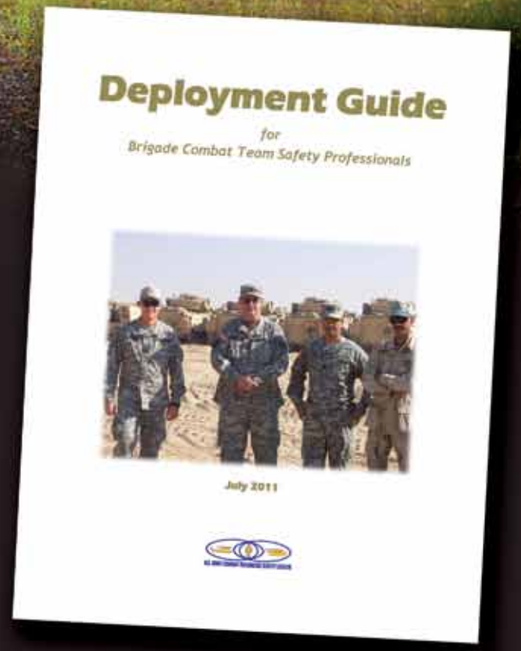
Keep the following tips in mind when conducting ground-guiding operations:

- Ensure drivers understand they must immediately stop if they lose sight of the ground guide or don't understand a signal.
- Make sure everyone understands the basic signals to control vehicle drivers (don't forget about flashlight signals) from Field Manual 21-60, Visual Signs.
- Position front ground guides to the left front of vehicles. Never allow a ground guide to walk directly in the vehicle's path. Ground guides and drivers must understand this.
- When using two ground guides, they must maintain visual contact with each other. The front ground guide must stop the vehicle if he or she loses sight of the rear ground guide.
- Ensure the ground guide, not the vehicle commander, is in charge of the vehicle. Whenever the vehicle is under the control of a ground guide, the only command the vehicle commander should issue to the driver is "stop."

Efficient vehicle operations and safety of personnel depends on clear, accurate and secured communication among ground Soldiers and through the use of arm and hand signals. For standardized visual signals, check out FM 21-60, GTA 17-02-091 (Visual Signals Armor Fighting Vehicle) and ground guide materials currently posted in Driver's Training Toolbox. Convoy and Ground Materials are also located in the toolbox. Visit https://safety.army.mil/drivertrainingtoolbox for more information.

You don't have to reinvent the wheel.

When preparing to go downrange, check out the Deployment Guide for Brigade Combat Team Safety Professionals for valuable lessons learned, resources, tools and other useful information. While developed for BCT safety professionals, anybody can use this deployment guide. Visit https://safety.army.mil/deploymentguide to download or order a DVD copy of the guide.



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ARMY SAFE IS ARMY STRONG

1 BAND OF BROTHERS & SISTERS

BY THE NUMBERS

U.S. ARMY

MASTER SGT. JOHN COLLINS
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

It is amazing how the Army has changed in the 19 years since I reported for basic training at Fort Knox, Ky. I remember going through basic continually doing the same drills that were done step-by-step or by the numbers. That method of training is forever etched in my mind as the way things are done. In talking with junior Soldiers, that method of training is still conducted today. The systematic order of operations ingrained into our daily routines is designed to make all our actions as safe as possible while simultaneously accomplishing the mission. However, in the last 14 months that I have served as the operations noncommissioned officer and an accident investigator at the U.S. Army Combat Readiness/Safety Center, I have seen a trend that is alarming and confusing at the same time.

The trend I'm referring to is accidents involving Soldiers of all ranks and military occupational specialties from different backgrounds making poor decisions. Seemingly, an epidemic of "how to forget" is plaguing the highly trained individuals who survive combat and feel invincible upon their return.

For example, Soldiers receive training on their assigned weapons. We are taught to have muzzle awareness, how to properly clear weapons, not to point weapons at anything we don't intend to shoot and to treat all weapons as if they're loaded. If we, as professionals, are taught to handle weapons properly, why are Soldiers being injured or killed by negligent discharges? Why are we not going by the numbers?

In the motor pool, we're taught to ensure chock blocks are used, along with proper jack stands, when working underneath vehicles. Soldiers receive a brief on safety procedures and how to mitigate risk when conducting maintenance operations. Yet cars are falling on Soldiers working on privately owned vehicles because they weren't properly chocked or supported. Why are we not going by the numbers?

Serving in the aviation community has broadened my knowledge of aviation. I believe aviators and maintainers are the most safety-conscious group of Soldiers serving today. When it comes to aircraft, they are meticulous about every aspect of their machines, both internally and externally. Before they fly, there's always a final walk-around to ensure the outside of the aircraft is visually inspected and there are no foreign objects near the intended path of departure. Yet aircraft are hitting portable fire extinguishers sitting on the parking pads. Did that aviator forget his or her checks? Again, why are we not going by the numbers?

Usually each Friday at the close of business, commanders brief Soldiers on the use of seat belts, tell them to not drink and drive and cover other important issues they should be aware of before they head out for the weekend. Recently, I was part of an investigation where a supposedly strong leader — who trained the Army's future leaders — died in a single-vehicle automobile accident. This senior NCO was intoxicated and not wearing his seat belt at the time of the accident. Each day, this individual instilled values in young Soldiers that will affect the rest of their careers. However, it's evident this Soldier felt the steps taken at work only applied when he was wearing the uniform. Why did he not go by the numbers he instilled in young Soldiers?

It's time we get back to going by the numbers and follow the values impressed upon us as young Soldiers. The only way to get back to the basics is simple. We, as leaders, need to enforce the standards and hold individuals accountable for their actions. Reiterate the importance of the basics at all levels. Most importantly, begin instilling the tenets of safety in your junior Soldiers and put an emphasis on the importance of maintaining these values throughout their careers.

As leaders, don't just talk the talk in front of your Soldiers; live by the numbers even when you think no one is looking. The old saying "Actions speak louder than words" goes a long way on impressionable minds. We are Soldiers 24/7, and we need to live by the numbers to promote a safety-conscious environment for all.

Just like many Army aviators, I've lost friends to helicopter accidents. I'd like to share what happened in one of those accidents so others can learn the hard lessons and correct the way they do business and improve the safety of operations in their units.

STICK TO THE STANDARDS

CHIEF WARRANT OFFICER 3 RACE BAKER
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My friend, Chief Warrant Officer Smith, lost his life in the summer of 2009. The accident investigation identified many root causes and systemic defects. What is truly unfortunate about this accident is another member of the organization, CWO Jones, had brought these deficiencies to the attention of our previous supervisor. When the supervisor failed to take corrective action, Jones went to the next supervisor in the chain of command. Again, no action was taken. It wasn't long after this that the tragic accident occurred. Sadly, this is often the case.

Smith had been promoted to the section supervisor after the previous supervisor retired. He had a true love of flying, dedicated himself to the organization and tried to make it better — largely by listening to the other aviators around him. His loss had a tremendous impact on the organization. With Smith gone, Jones was the only helicopter pilot in the organization and was put in charge of the section.

The loss of the aircraft had shut down the helicopter section. Jones was determined to fix the system defects before the new helicopter arrived to the unit. He went to work immediately. He started with the basics, drafting standing operating procedures based on operations he had previously noted at other locations. He identified training defects and manning shortages and lobbied in the name of aviation safety to have them filled. Using this back-to-basics approach, Jones was able to have programs and policies in place when the new helicopter arrived.

Jones was under extreme pressure to rush the new program; however, he refused to cave in. He demanded everyone to follow the program. He flew missions only when necessary and put training ahead of all else. New pilots and additional aircrew members were hired and placed in the training program. When opportunities came for more efficient operations, Jones made the changes. When unexpected problems were encountered, they were evaluated and appropriate actions were taken. The program continued and was actually ahead of schedule. Pilots received the required training, and aircrew members, in this case tactical flight operators, were developed. No one was flying missions before they were ready.

Fast-forward two years. Another pilot in command, CWO Dixon, had been "raised" through the program. He had been signed-off the previous week and, for his first mission, took the aircraft to a location where it would be a static display. A simple mission, if there is such a thing, in which he could become more comfortable operating the aircraft as PC. The crew was briefed,

another process developed by Jones, and a pilot and the TFO flew the mission. Everything was normal during takeoff and the 30-minute flight, but that was about to change.

During the final approach to landing, the aircraft began to yaw uncontrollably. Dixon immediately identified the problem and maintained his airspeed so he could control the aircraft. He directed the TFO to get out the operator's handbook and go through loss of tail rotor emergency procedures. Dixon notified tower of the emergency, and the airfield began preparations for an aircraft crash. Dixon continued to troubleshoot the problem, but it matched nothing in the handbook. His only course of action was a power-off autorotation. The airfield was prepped, the aircraft entered autorotation and Dixon completed a perfect landing without damage to the aircraft or injury to the crew.

I don't want to take anything away from Dixon's superior airmanship. It was superb; but what I want is leaders to take something away from this whole scenario. Everyone has been in a unit where one guy thinks the sky is falling, but the commander briefs how great his unit is doing. What I would like is to challenge leaders at all levels to determine the true status of your organization. I once had a commander sum it up for me when it came to hearing differing opinions: "The truth lies somewhere in the middle." Recognition of a unit's systemic defects is vital to preserving its fighting capabilities.

> "Recognition of a **UNIT'S SYSTEMIC DEFECTS** is **VITAL** to preserving its **FIGHTING CAPABILITIES.**"

Sometimes an organization is forced to take a step back to move forward. The goal of all leaders should be to recognize the need to reset the unit prior to a tragic accident like the one that occurred in this organization. Set standards and stick to them. Ensure your organization is combat ready with clear, defined and obtainable standards before sending them into combat.

Editor's note: The names of the individuals involved in this incident have been changed to protect their privacy.

I was tired as I sat in class thinking, "I can't wait to get in my bed." I'd woken up at 4:30 that morning to report to work and, as soon as I got off, headed to class. As I tried to pay attention during the four-hour-long class, I kept wishing it would get over early. I had already worked 40 hours that week and it was only Wednesday.

As I hopped into my car after class, I checked my phone and realized I'd missed several calls. I decided to return them immediately because I knew once I arrived home, I wouldn't have time. I popped in my favorite CD, dialed the number to return a call and headed home.

> "I looked around inside the car **THINKING**, "Oh, where is my **PHONE?**" Now, however, I wasn't concerned about returning calls; **I NEEDED TO CALL FOR HELP.**"

MULTITASK equals MAXI-RISK

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I was traveling 70 mph in the fast lane and talking on the phone when I crested a hill on the interstate. Suddenly, the car in front of me swerved to the right to avoid a stopped vehicle in our lane. Before I could react, I sideswiped the stopped car. Fortunately, I missed the people standing beside the car trying to change a flat. However, I lost control and slammed into a concrete barrier. Everything happened in a matter of seconds. When I finally stopped, the impact of the crash and my air bag deploying managed to bust my lip, fracture my wrist and demolish my car. I looked around inside the car thinking, "Oh, where is my phone?" Now, however, I wasn't concerned about returning calls; I needed to call for help.

We have all juggled in-car distractions. Because of that, we can benefit from developing safer, less distracted driving habits. Driving is a task that needs our undivided attention. Here are some driving distractions we all may be able to relate to:

Physical Driving Distractions

- Eating or drinking
- Cellphones
- Passengers such as small children
- Putting on makeup or shaving
- Adjusting a radio, MP3 player or inserting CDs
- Other cellphone-related operations such as text messaging and voicemail

Mental Driving Distractions

- Fatigue
- Aggression
- In-depth conversations with passengers in the car
- Listening to audio books
- Preoccupation with personal or work-related problems

Safety Tips

- **Cellphones** — Turn off or use only when the vehicle is safely stopped.
- **Eating and drinking** — Avoid eating while on the road. Only eat when your vehicle is safely stopped.
- **Radio, MP3 player and CDs** — Select one station and set the volume level. Preselect CDs for the trip.
- **Fatigue and drowsiness** — Get eight hours of sleep each night. If fatigued on the road, pull over where it is safe and take a nap.
- **Passengers** — Avoid potentially emotional conversations. Properly restrain children.
- **Reading and writing** — Avoid flipping though the map while driving. Only read or write when the vehicle is safely stopped. Review driving directions ahead of time. If needed, make a large-print copy to tape to the dashboard.
- **Makeup or grooming** — Do these things at home or only when the vehicle is safely stopped.
- **Aggression** — Be a courteous driver. Allow plenty of time for commutes so a tight schedule doesn't lead to a short fuse.
- **In-car electronic systems** — Use only when the vehicle is stopped.

For additional useful safety tips concerning distracted driving, visit www.drivingtips.org/distracted-driving.html.

DID YOU KNOW?

According to the Insurance Institute for Highway Safety, motorists are prohibited from talking on a hand-held cellphone while driving in California, Connecticut, Delaware, Maryland, Nevada, New Jersey, New York, Oregon, Washington and West Virginia, as well as the District of Columbia. In addition, texting while driving is banned in 38 states and the District of Columbia. To view the cellphone and texting laws for your state, visit the IIHS website at http://www.iihs.org/laws/cellphonelaws.aspx.

DON'T FORGET THE CHOCK BLOCKS

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Fort Carson, Colo.

Several years ago while stationed at Fort Lee, Va., my company rolled out for a routine field training exercise. It was a gloomy, overcast day as my commander and first sergeant led our convoy to Fort Pickett, about 60 miles away. As we occupied a bivouac area, we were focused on the mission and unaware that as the FTX progressed, an easily preventable incident would snowball into a near catastrophe for our unit.

We began staging/parking our vehicles and equipment in a designated area, which happened to be located on a hill next to a cliff. We were instructed to park the vehicles and equipment facing the road (combat parking) and reminded to use chock blocks to prevent them from sliding down the hill.

The next morning, we received safety briefings from our first-line supervisor and team leader. We then began installing an Inland Petroleum Distribution System — a rapid deployment, general support, bulk fuel storage and pipeline system designed to move bulk fuel forward. That afternoon, dark clouds filled the sky and it started to rain, so our company commander decided to stop the mission. As soon as everyone got back in the bivouac area, we parked the equipment. The rain continued throughout the night.

Early the next morning, everyone got up and went about their business. After I grabbed some breakfast, I went back to my tent to get gloves and a CamelBak for the day's mission. Along the way, I ran into one of my Soldiers, Spc. Mills. As we were chatting, we happened to be looking at the vehicle/equipment parking area. We couldn't believe our eyes … both Mills and I watched as a 30k forklift started to roll backward. Mills yelled, "Look, sergeant, that forklift is heading off the cliff!"

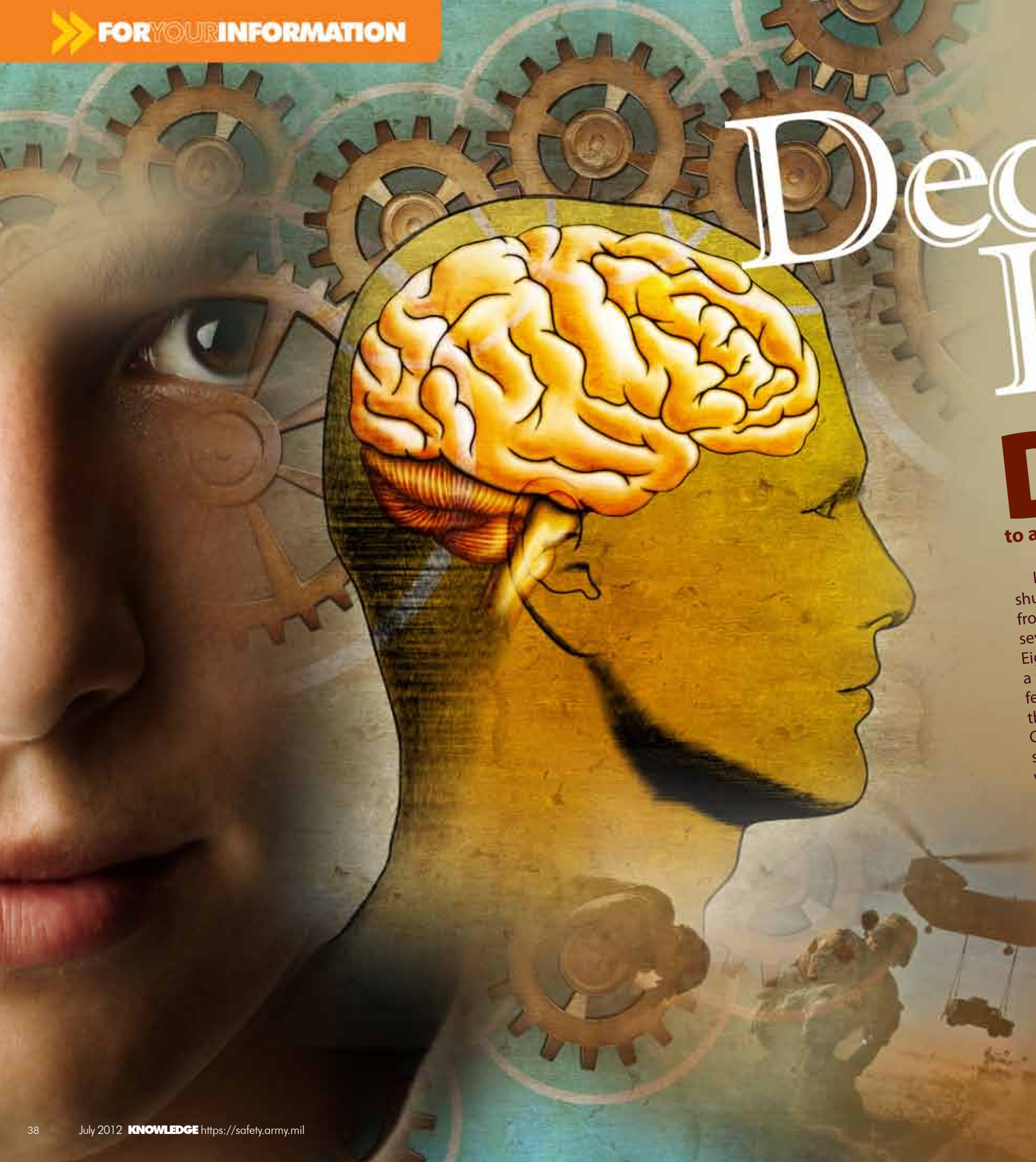
Instinctively, we sprang into action. I was about two steps behind Mills when she got a grip on the forklift's door. As soon as she opened it, she dived inside the cab and tried to engage the brake. While I was holding her feet, she exclaimed, "Sergeant, the brake isn't working!" I told her to hang on and let go of her feet. I ran to the nearest parked vehicle — 5-ton truck — and took its chock blocks and hurried back to the forklift. I put the first chock block behind the left-rear tire and told Mills to turn the forklift wheel to the left to prevent it from sliding. Once Mills turned the wheel, the forklift started to slow down. I put the other chock block behind the right-front wheel, which did the trick. With tragedy averted, the commander and first sergeant immediately changed the location of the parking area and briefed the company on the importance of safety, especially the use of chock blocks.

Several factors contributed to this incident, and we were fortunate no one was injured or, even worse, killed. Indiscipline was a big factor; the forklift didn't have any chock blocks even after we were briefed at the beginning of the exercise to use them. Materiel failure also played a part, as the emergency brake wasn't working. In addition, the parking area wasn't in an ideal location, and the rain-soaked ground didn't help matters any.

As leaders, it's important we check and recheck not only ourselves, but our Soldiers too. Soldiers do what is checked. If Leaders let the standards slip, can we hold our Soldiers accountable?

FYI

In addition to possessing specific skills to operate tactical equipment, operators must also know how to properly park vehicles, use proper-sized chock blocks and conduct preventive maintenance checks and services. Army Regulation 385-10, The Army Safety Program, states Army motor vehicles, except nontactical vehicles, are required to be equipped with properly sized chock blocks for use when parked on sloping terrain, while maintenance is being performed or when a vehicle is parked and a trailer is attached. To access equipment technical manuals, training guides for material handling equipment and a copy of AR 385-10, visit the Driver's Training Toolbox at https://safety.army.mil/drivertrainingtoolbox. An AKO login is required.



Decisions, Decisions

PETER ZIMMERMAN AND JENNIFER S. LERNER
Harvard University
Cambridge, Mass.

Do emotions influence your decision-making? Should they? Do they mislead or convey important information and aid your decision-making? The answer to all these questions is "Yes."

In January 2003, the space shuttle Columbia lifted off from Cape Canaveral, Fla., with seven astronauts on board. Eighty-one seconds into flight, a piece of foam insulation fell from the external tank that fueled the main engine. Cameras recorded the foam striking Columbia on its left wing. Foam had struck the spacecraft on prior flights but never caused much damage. Some engineers were alarmed by this latest incident, but senior NASA managers were reluctant to check for damage. To do so, they would have had to track down satellite imagery from other agencies or improvise a space walk. Neither approach was attractive. More troubling, officials seemed unwilling or unable to face the possibility of serious damage. "I don't think there is much we can do about it," said one senior manager.

The damage wasn't detected until Columbia re-entered Earth's atmosphere 15 days later. As sensors sent erratic, confusing data, the shuttle lost control, broke apart and plunged to Earth, tragically ending the lives of its crew. The investigations that followed the disaster cited many failures, from technical problems to flaws in NASA's organization and culture. Investigators identified numerous opportunities in which management decisions could have led to an assessment of the damage. Decisions based on emotion and assumptions sealed Columbia's fate.

Longtime decision-making models assume people base decisions on evidence and rational analysis of alternatives, including attendant risks and uncertainties. But scientific discoveries about the brain undercut that basic assumption. Research shows the model of rational, self-aware decision-making rarely plays out in the real world. To begin with, most human cognition is unconscious. People absorb millions of bits of data per second through the senses and then compress, screen and process this data automatically through shortcuts in the brain. Neuroscience breakthroughs show the brain's emotional pathways engage more rapidly than

> "Looking at **PROBLEMS** through the **EYES OF OTHERS** can **IMPROVE YOUR JUDGMENT.**"

cognitive pathways. Consequently, the emotional centers of the brain influence what people see, hear and feel in response to an event or task well before they experience a conscious thought. What emerges in conscious awareness are snap judgments, instant recognition, intuitions and feelings of certainty that can't be fully explained. Though wondrously efficient, these processes generate biases that can result in errors.

Two types of emotion influence decision-making: integral emotions arise from the situation at hand, while incidental emotions carry over from past events. Integral emotions are legitimate decision inputs. Your brain is sending you an alert. In the Columbia case, the apprehension, alarm, even fear many NASA engineers felt were integral to judgments about safety. No one knew where foam had struck Columbia or with what effect, and the engineers wanted to find out. Incidental emotions can be misleading.

Top NASA managers harked back to past incidents of foam strikes that caused little damage. They drew false comfort from the past, diverting their attention from the situation at hand and the risk to Columbia and its crew. Their failure to recognize and act on integral emotions helped seal Columbia's fate.

Here are some ways managers can recognize and deal with their emotions when it's decision time.

- **Diagnose your feelings.** A common mistake among experienced executives is to assume the types of decision-making errors seen in the Columbia case don't affect them. Yet countless studies conducted in the Harvard Decision Science Laboratory reveal incidental emotions affect everyone, whether or not they're aware of them. Any situation can trigger cognitive and emotional biases that spill over into current experience. Probe whether your emotions are integral or incidental and whether they are appropriate.

- **Consider other perspectives.** Consultants, advisers and confidantes can help you identify how your personal history and the situations you encounter are likely to bias your thinking. Education and training also can help. When asked what prepared him for leadership in Iraq as head of U.S. Central Command, Army Gen. David Petraeus cited the diverse perspectives he encountered in civilian graduate school. Looking at problems through the eyes of others can improve your judgment.

- **Treat each situation as unique.** Our minds are hard-wired to assume the past reliably predicts the future. In fact, the neural pathways associated with prediction mirror those associated with memory. This explains why NASA managers felt comfortable with their decision based on incidents that turned out fine. If they instead had categorized earlier foam losses as near misses worthy of investigation, rather than as successes, catastrophe might have been averted.

Emotions can lead you astray, but they are time-tested evolutionary adaptations to universal life challenges. Rather than writing off your fears, investigate them fully and carefully weigh their role in your decisions.

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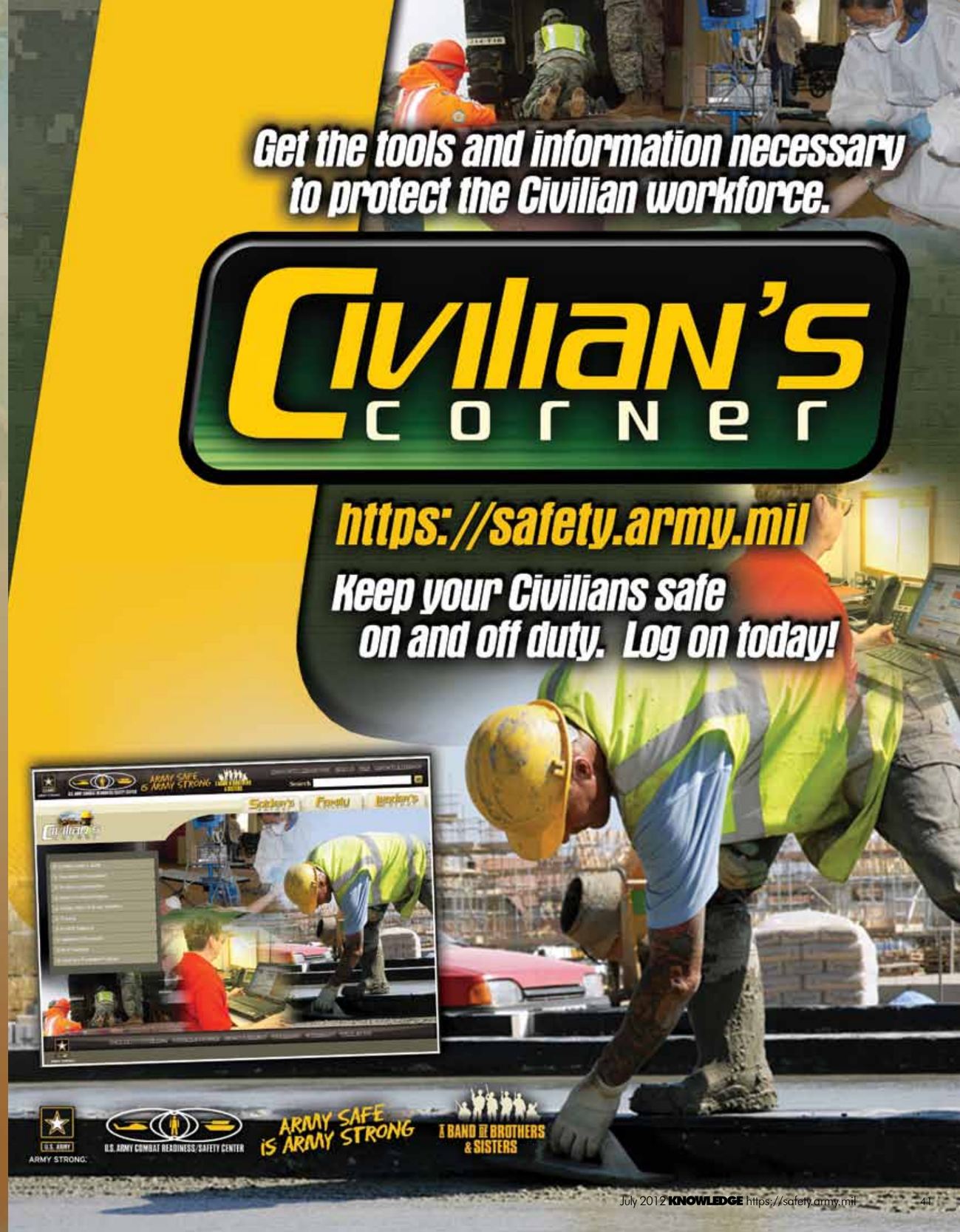

Classified Ads

For Sale

The Hard, Right Choice

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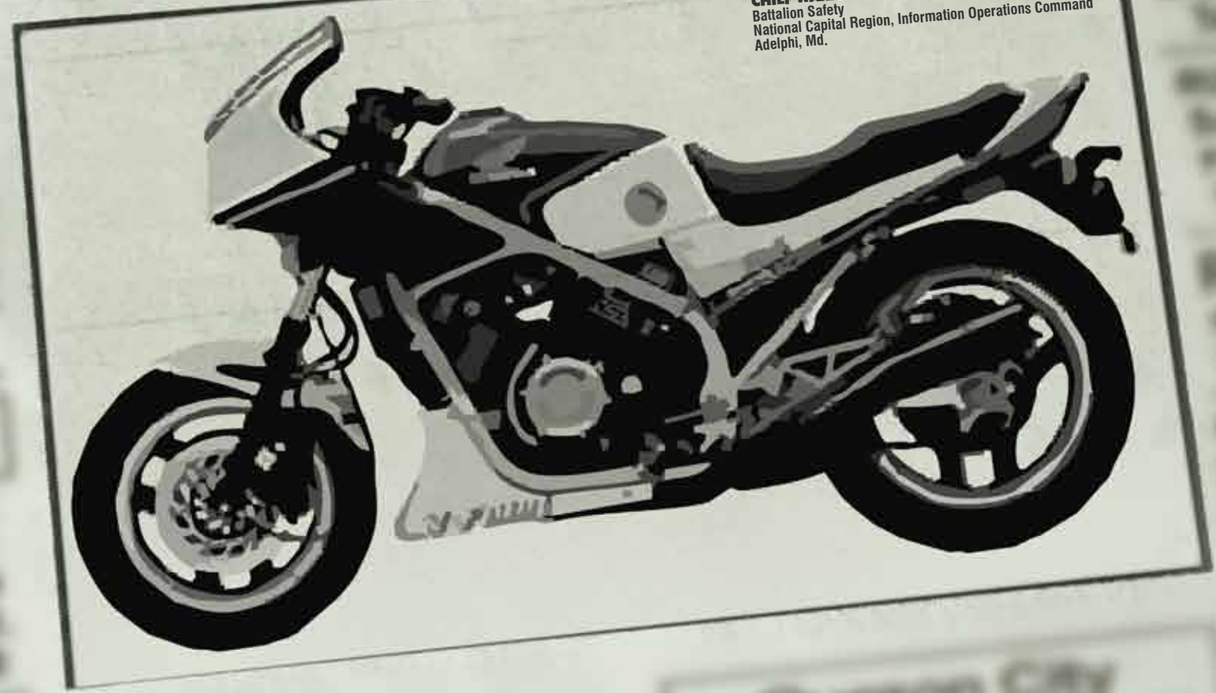
National Capital Region, Information Operations Command
Adelphi, Md.



As the wind whipped by at 155 mph, I noticed two things. First, the Porsche I was racing had finally dropped off — not even he was this crazy. Second, with the turbo kicked in full-bore to hold this speed, I could actually see the needle on my motorcycle's gas gauge dropping. I backed it down and took the next exit as the Porsche screamed past and the driver waved.

It was 1986 and I was, at least in my mind, a hotshot military pilot. My buddy and I had bought sport bikes and spent our free time tearing up the German countryside, doing wheelies at 60 mph and racing fast cars on the autobahn.

We flew hard and played harder, and I never worried about what my wife and four children would do without me. After all, I was invincible — even though friends kept saying my motorcycle was going to get me killed.

Less than a year later, I was back at Fort Rucker, Ala.

"Want to take it for a ride?" said the Soldier selling a 750 Honda sport bike.

"Sure," I responded in an even, steady voice. This was no time to let him see how eager I was to get this screamer on the road. I had just returned from Germany and was assigned to the flight school as a training and counseling officer. I had left my bike in Germany because it was illegal in the states and, as a result, hadn't ridden in months.

As I mounted the bike, the kids gathered around to look at daddy's potential new toy. My wife stood off under the carport, arms crossed. She saw it in my eyes — the decision to buy had already been made.

The engine roared to life and I carefully pulled out of the driveway and headed out of military housing toward the road leading to Lowe Army Airfield. It was a quiet two-mile stretch of curvy country two-lane I had been longing to try out on a fast bike. Within seconds of turning onto it, I was at 110 mph.

I don't know if it was coincidence or the sound of a sport bike in full-throated roar that attracted the military police. However, just as I turned near the entrance to the airfield and was about to pour on the power again, I spotted a patrol car rounding the corner and heading my way. I eased it down and smiled at them as they drove past, trying to stare a hole through my dark-tinted helmet visor. They knew.

That was a close one. A reckless driving charge could have cost me my license and maybe even my career, as the Army was starting to come down hard on stuff like this. I began to think about other close calls I'd had. There was the time I barely missed a Mercedes that pulled in front of me in Nuremberg, or the time I laid down my bike when I braked too hard trying to round a curve on a rain-slicked road. My helmet and leathers saved me that day.

I thought about my wife and children. My oldest son was playing sports now and my daughter was turning into a beauty; they needed Dad in their lives. I even thought about my flight school Soldiers. Who would keep them in line?

As I pulled into the driveway, the kids stopped playing and ran toward the bike. My wife remained on the porch leaning against the support pole, arms still crossed. The Soldier selling the bike, confident of the sale, walked up.

"So, what did you think?" he asked.

"Great bike," I responded, as I dropped the keys into his outstretched hand. "But sorry, no sale. This thing will get me killed."

My wife stood up straight from where she had been leaning against the pole. The kids fell silent as I walked into the house, not looking back.

More than 25 years later, I'm still flying and playing hard. Luckily for me, I learned early on when challenging myself and just being stupid needed to take separate roads. That day, I made the right choice that my Family came before my fun. While rocketing down the road on a fast bike gives a few moments thrill, the joy of watching your children grow up lasts a lifetime.

> "**THAT WAS A CLOSE ONE.** A reckless driving charge could have **COST ME MY LICENSE** and maybe even my **CAREER**, as the Army was **STARTING TO COME DOWN HARD** on stuff like this."

LOST

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, email safe.knowledge@conus.army.mil.

AVIATION

AH-64D

CLASS A

- The aircraft was at a 25- to 40-foot hover when the crew experienced loss of lift during a soft-pedal turn. The aircraft impacted the ground and the main rotor system struck the canopy, injuring the front-seat pilot. The aircraft was destroyed.

CLASS B

- The aircraft contacted and severed a Persistent Ground Surveillance System aerostat tether as the crew was flying security over a combat outpost under forward-looking infrared radar. The sister ship observed the suspected strike, although the aircraft crew detected nothing. Damage to the No. 2 main rotor blade tip cap found on postflight inspection confirmed contact.

OH-58A

CLASS C

- During a demonstrated autorotation, the aircraft experienced an N2 spike (113 percent) at 200 feet above ground level.

OH-58D(R)

CLASS C

- The aircraft experienced an NP exceedance (124 percent/8 seconds) while in Full Authority Digital Engine Control manual mode at 100 percent RPM during engine run-up.

UH-60A

CLASS C

- A postflight inspection revealed damage to all four MRBs due to contact with the Blue Force Tracker antenna during night roll-on landing training.
- The aircraft landed on rocks in snow-covered terrain during night vision goggle training. The aircraft was released for return flight to the Army Aviation Support Facility, where damage was found on the undercarriage.

UH-60L

CLASS C

- During landing at a training site, a landing marker was ingested into the MRS. Two MRBs were damaged.
- The aircraft was being run-up for a high-speed shaft balance check as part of post-phase maintenance when the crew experienced caution readings and noise from the No. 1 engine. The initial indication was failure of the No. 1 input module, resulting in further damage to the horizontal stores support sleeve and gimbal seal.
- The aircraft was in the process of a hot-refuel when the clip separated from the grounding cable during handling and blew into the MRS. One MRB required replacement.

LOSSES AVIATION — FISCAL 2012 Class A/Fatalities thru May 2012

ATTACK	3/0
RECON	1/4
UTILITY	5/5
CARGO	3/0
TRAINING	0/0
FIXED-WING	1/0
UAS	2/0
TOTAL	15/9

as of Jun. 6, 2012

UAS

MQ-1B

CLASS A

- The unmanned aircraft exhibited low oil temperature and pressure indications, accompanied by manifold temperature spikes. The crew lost link as the UA was returning to base.

LOSSES GROUND — FISCAL 2012 Class A/Fatalities thru May 2012

AMV	11/8
ACV	5/3
PERSONNEL INJURY (includes weapons-handling accidents)	15/13
FIRE/ EXPLOSIVE	2/2
PROPERTY DAMAGE	0/0
TOTAL	33/26

as of Jun. 6, 2012

GROUND

ACV

CLASS A

- A Soldier was killed when the Mine Resistant Ambush Protected vehicle he was ground guiding struck him. The Soldier was attempting to reach a local national child that had ducked under the MRAP.

AMV

CLASS A

- A Soldier died when the Light Medium Tactical Vehicle she was ground guiding struck her.

Personnel Injury

CLASS A

- A Soldier was killed when the 40 mm round he was handling detonated. Six other Soldiers were seriously injured in the blast.
- A Soldier died from blast injuries while training with the Anti-Tank 4 weapon system.

DRIVING

POV

CLASS A

- Three Soldiers were returning to post when the driver swerved to avoid an animal. One of the Soldiers was killed when he was ejected as the vehicle overturned.
- A Soldier died after he lost control of his vehicle and struck a tree.
- A Soldier was killed in a hit-and-run after exiting a vehicle to help another Soldier involved in a minor motorcycle accident.
- Two Soldiers were walking along a highway at night when one was struck and killed by a vehicle driven by another Soldier.

CLASS C

- A Soldier was injured when he was rear-ended by a texting driver.
- Two Soldiers were injured when they struck a tractor-trailer they were attempting to pass. The Soldiers' vehicle spun off the road, struck a ditch and overturned.

LOSSES POV/POM — FISCAL 2012 Class A/Fatalities thru May 2012

CAR	23/22
SUV/JEEP	7/6
TRUCK	2/2
MOTORCYCLE	33/30
PEDESTRIAN	4/3
OTHER* (*Includes vans, ATVs, snowmobiles and bicycles)	1/1
TOTAL	70/64

as of Jun. 6, 2012 — Fiscal Year 2011: 59 — Three Year Average: 64

POM

CLASS C

- A Soldier was injured when he ran off the road to avoid being struck by an oncoming vehicle that entered his lane.

Be a SMART Soldier

Be **SMART** – protect yourself and those around you.
When in a car, ensure everyone wears their seat belt.
Learn more at https://safety.army.mil.

WEAR YOUR SEAT BELT

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SMART

SAFE
MATURE
ACCOUNTABLE
RELIABLE
TRUSTWORTHY

SOLDIERS LEADERS CIVILIANS FAMILIES

Take 5 for Sports and Fitness

- Know your limits for physical activity.
- Just because you're deployed doesn't mean you can ignore safe practices and take risks.
- Establish an emergency medical plan.
- Don't let indiscipline during sports or fitness activities take you out of the fight.

Take 5 ... then take action.

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HUNTING SAFETY: TAKE A 'STAND'

KNOWLEDGE

VOL 6 AUGUST 2012

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

WHEN THE PLAN CHANGES

- HAND INJURIES
- FOD PREVENTION
- SEAT BELTS

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OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

LEADERS SOLDIERS CIVILIANS FAMILIES

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We welcome your feedback. Please email comments to **safe.knowledge@conus.army.mil**.

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"**SAFETY** is a value our Soldiers should **LEARN FROM THE VERY BEGINNING**, and there's no better time to reach them than when they're **EAGER TO DISCOVER** what the **ARMY** is all about."

FIRST IMPRESSIONS

Coming into any new job is an adventure, and in our Army, you'd better be prepared to hit the ground running. In my short time as the new director of Army Safety and commanding general of the USACR/Safety Center, I've been sprinting! I never imagined how busy and rewarding these first couple of months would be, and I want to commend you all for the incredible work you've done to keep accidental fatalities at historic lows these past few years. I couldn't have asked for better teachers than the leaders, Soldiers, Family members and Civilians doing the hard work for safety every day — thank you for being a wonderful example for me to follow.

I didn't come into this position with a grand vision for how things should be; we're obviously on the right track with fatalities on a sustained downward trajectory. But there are a few issues that caught my attention immediately, and I'd like to share my thoughts on those now. Some are recurring problems, while others are just beginning to emerge as a verifiable trend. The one commonality among them, though, is that they all require our urgent attention.

Loss of leaders in privately owned motorcycle accidents. This subject has been a priority for Army leadership for quite some time, but the fact remains that just as our most recent third quarter was ending, well over half of this year's motorcycle fatalities were NCOs. In the July 2012 Knowledge, CSM Rick Stidley wrote that bad decisions at the top tend to trickle down to the lowest level, even in formations as small as a squad. I completely agree with his position — no one is immune to indiscipline, especially young Soldiers who look to their leaders for guidance and wisdom. There's no excuse and no room in our Army for leaders who don't live what right looks like.

A disproportionate share of specialists involved in privately owned vehicle and POM accidents. I saw lots of data my first few days on the job, and this was among the most startling: Up to the end of the third quarter of fiscal 2012, specialists accounted for more than half of all POV fatalities and about a third of all POM losses. Even more alarming, indiscipline, primarily excessive speeding, was cited in many of these accident reports. Something is wrong when Soldiers who've been in the Army long enough to know the standards and are getting ready to assume leadership roles outnumber privates two-to-one in fatal accidents. Whether it's due to the toxic effects of indisciplined leadership or simply a matter of individual failure to uphold the standards, we have to break the cycle and reach these Soldiers now to not only save lives, but also prevent them from entering the NCO ranks with an unmitigated, high-risk attitude.

Keeping safety professionals in the field. The current professionalization and training of our Army's safety professionals, both uniformed and Civilian, is unprecedented. At no prior time have commanders had the breadth and depth of safety expertise in their formations as now, but I have concerns some of that knowledge may remain untapped. We can't pay lip service to safety — commanders must make it a priority, and the best place to start is with the safety professional. These men and women have been trained to be your advocate, advisor and counselor on all things safety, and not tapping into that potential does both them and your Soldiers a disservice. I promise that, if given the chance, they will become an indispensable part of your go-to staff!

Applying risk management in the schoolhouse. We've gotten much better as an Army at teaching the "cradle to grave" model of risk management in initial-entry training and leader development courses. Now that the complete operational drawdown of combat forces is near, we have a fantastic opportunity to take those efforts even further. Safety is a value our Soldiers should learn from the very beginning, and there's no better time to reach them than when they're eager to discover what the Army is all about.

You might be missing the "how" to fix these issues, and quite honestly, I don't have an answer yet. No one solution will work for every Soldier or unit; that's why the broad concepts of engagement, training, discipline and standards have worked so well for us — leaders can mold them to their Soldiers' unique needs and circumstances. I welcome your feedback on what we've done and where we need to go in the future. No one is in this fight alone!

Finally, remember that with the dwindling days of summer here, many of your Soldiers will be taking last-minute vacations. Please caution them to be extra careful on the road and in the water, the two places they're most likely to get into trouble. Our first and most important mission is to make sure everyone makes it home, every time.

It's an honor to be here, and I look forward to serving with you in the exciting days ahead. Thank you again for all your hard work and support!

TIMOTHY J. EDENS
Brigadier General, USA
Director of Army Safety

Lost Digits?

MICHAEL WOOD
Ground Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Climbing on or off Army equipment sounds easy enough, and Soldiers accomplish this task daily without injury. However, those who don't complete this task safely are risking a severe hand injury or possibly even the amputation of a finger.

My first experience with a dismounting accident happened many years ago at Fort Polk, La. I had just completed the first six months of the U.S. Army Safety and Occupational Health Management Program and returned to my home station to begin my on-the-job training portion of the intern program. One day, I was alone in the safety office when I got the call that a Soldier had an accident while dismounting a 5-ton truck. I reached for my notebook and the office camera and headed to the motor pool to investigate my first accident.

When I arrived to the scene, witnesses told me the Soldier had been replacing the canvas on the truck and, as he dismounted, his ring finger got caught on something and was torn off. I walked into the parking lot and found the 5-ton. As I started my investigation, I saw something red on the top of a bolt that held the side-view mirror onto the truck. As I got a closer look, I realized the red object was part of the Soldier's finger! I looked on the top of the canvas and saw skin that had once covered the Soldier's now-severed finger.

The Solder had placed his hand on top of the mirror when he jumped down from the 5-ton's hood. As he did, his wedding ring snagged on the mirror bolt, pulling off the skin and launching it on top of the canvas. The Soldier went to the hospital without his finger and, since it lay baking in the hot Louisiana sun, surgeons would not have been able to reattach it. I will always remember this accident. I imagine the Soldier does, too, each time he looks down at his missing finger.

In the Army, there's large equipment that must be mounted and dismounted to accomplish many different tasks. Soldiers must always be aware of fall hazards, especially when climbing onto or off equipment during maintenance or while securing equipment during transport. When dismounting, Soldiers must be careful where they put their hands and feet. In addition to degloved or amputated fingers, Soldiers can also suffer twisted or broken ankles, along with injuries to their legs, knees, wrists, arms and upper body.

So what can you — as a leader, battle buddy or Soldier — do to prevent these types of injuries? Here are a few tips:

- Use extreme caution when mounting or dismounting a vehicle. Never dismount a vehicle by jumping from it.
- Ensure you understand and use the three points of contact method when mounting, dismounting or moving around on the vehicle. This means

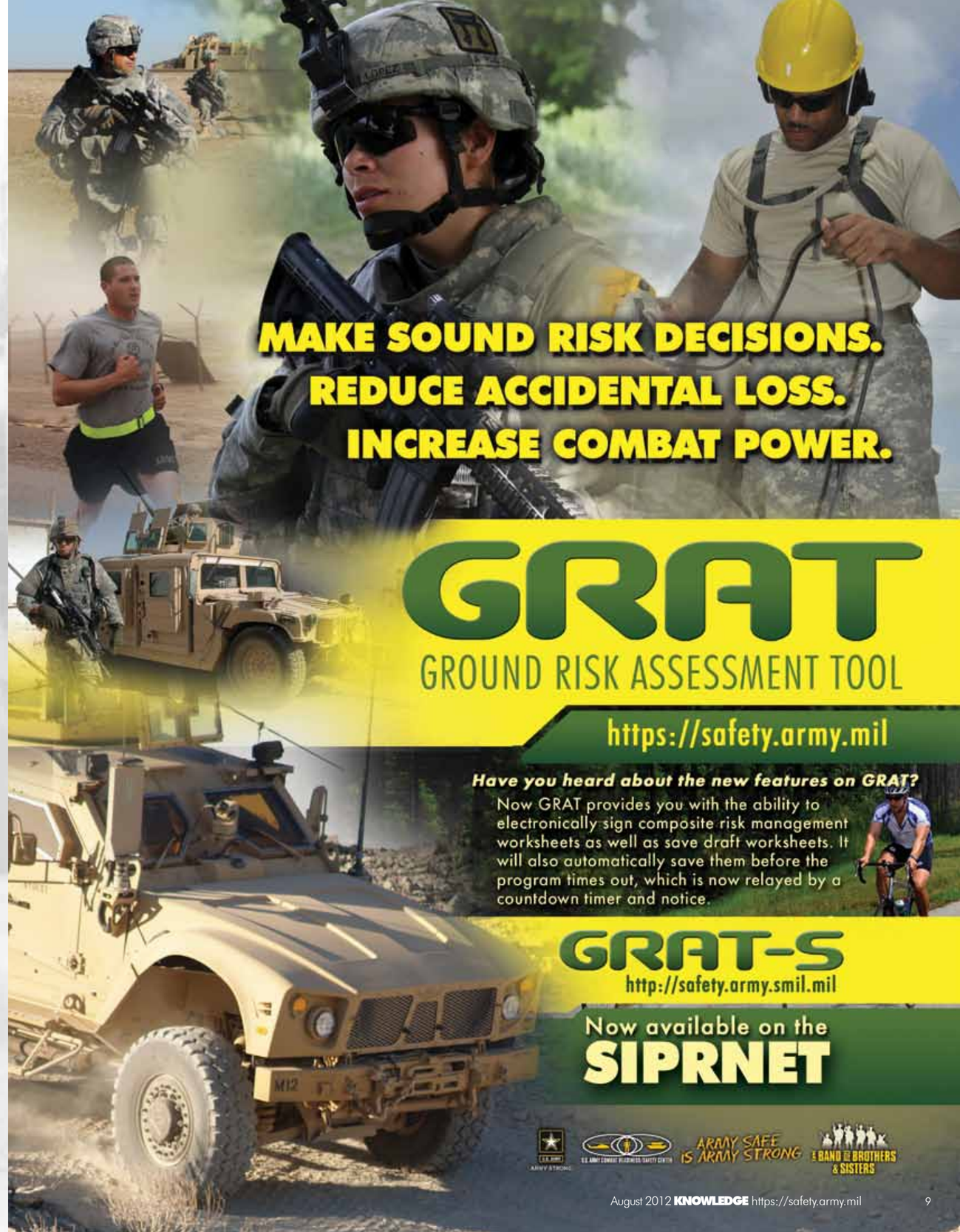
DID YOU KNOW?

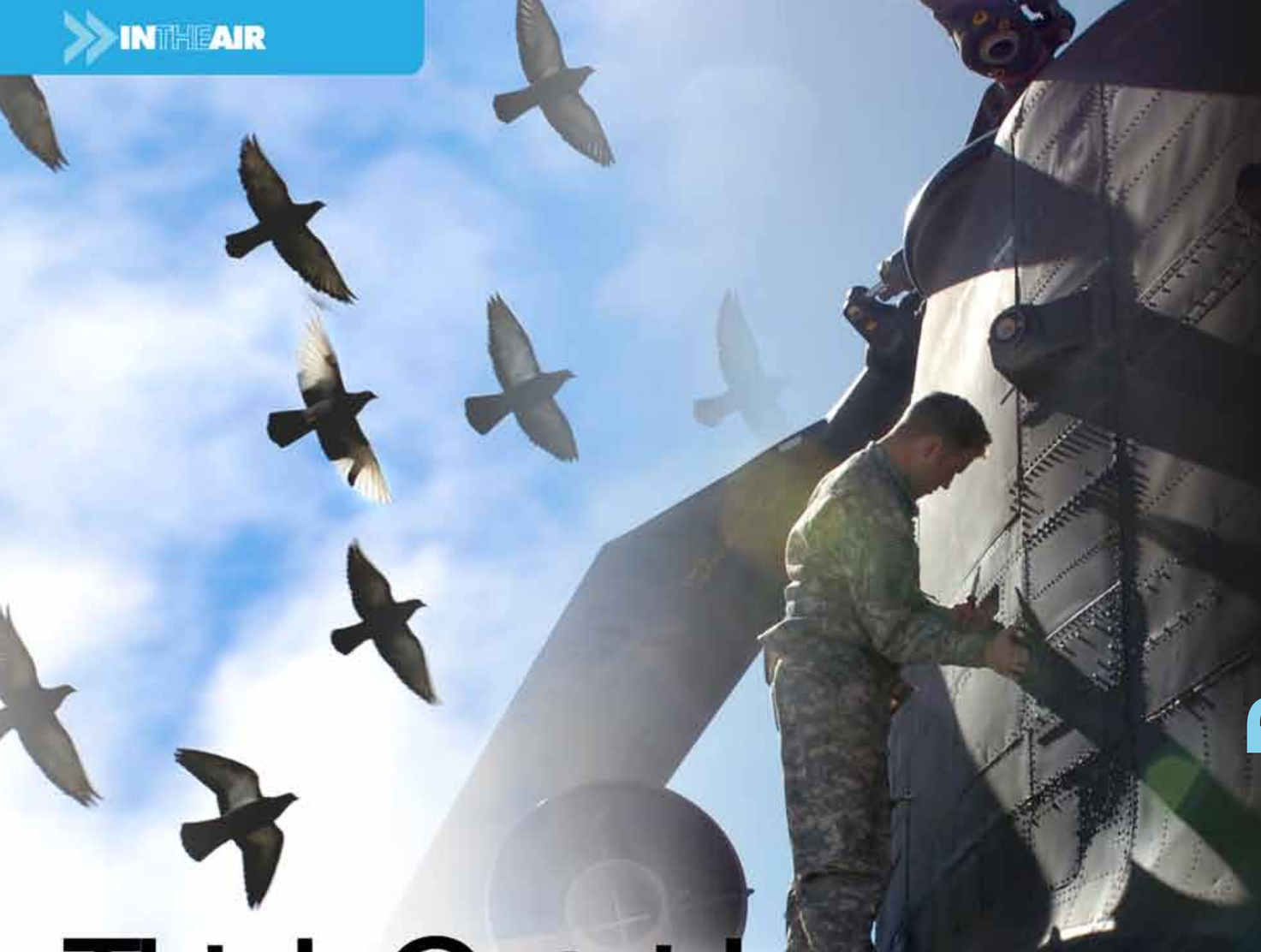
The Army had 13 Class B accidents between fiscal 2008 – 2011 caused by improper mounting and dismounting procedures. All 13 accidents resulted in the amputation of fingers or the tips of fingers. Of those, nine involved Soldiers wearing wedding rings that got caught on equipment. To learn more about the hazards your equipment may present, go to the Driver's Training Toolbox at https://safety.army.mil/drivertrainingtoolbox (AKO login required).

having two hands and one foot or two feet and one hand on the equipment at all times.

- Break three points of contact only when you reach the ground, cab, turret or a stable platform.
- Use the parts designed by the manufacturer for mounting and dismounting — steps, running boards, traction strips, footholds, handgrips, etc., — and keep these parts clear of mud, snow, grease and other hazards that can cause slips, trips or falls.
- Do not use wheel hubs, machine tracks or door handles for mounting and dismounting.
- Ensure the driver or gunner is aware when personnel are mounting or dismounting the vehicle.
- Never mount or dismount a moving vehicle. Drivers must bring the vehicle to a complete stop before allowing anyone to mount or dismount.
- Never climb in front of a weapon to mount the vehicle.
- Wear protective gloves.

> "**SOLDIERS** must always be **AWARE** of fall **HAZARDS**, especially when climbing **ONTO** or **OFF** equipment during maintenance or while securing **EQUIPMENT** during transport."





Think Outside the FOD Box

CHIEF WARRANT OFFICER 2 JOEL M. GARZELLONI
4th Squadron, 6th Air Cavalry Regiment,
16th Combat Aviation Brigade
Joint Base Lewis-McChord, Wash.

Foreign object damage is an important program to Army aviation. FOD prevention is mandated by DA Pam 385-10, which states FOD prevention programs will be in writing, all unit personnel will be trained in FOD prevention (paragraph 2-8b.) and FOD prevention will be discussed at all unit safety meetings (paragraph 2-8 d. (1)(c)). Army aviation units are doing well to implement these programs and meet the regulatory guidance; however, many publications don't address real-world challenges. It's necessary for units to thoroughly analyze their specific FOD-related hazards and respond to them to mitigate damage and injury.

As a troop FOD officer deployed in support of Operation Enduring Freedom last year, I learned many things are different in a combat environment. At home, aircraft were always in a hangar and roads were paved. Not so in Afghanistan. In garrison, arming was done in a controlled area where dunnage could be closely monitored. In Afghanistan, it is done in parking or while refueling by pilots in a hurry to launch for a mission (or to make it back for chow). At home, no trooper could go home until he or she conducted a FOD walk. During deployments, troopers worked multiple shifts with sparse crews. The list goes on and on.

So what happens when you're thrown a curveball? One such curveball was the enterprising bird population on our forward operating base. If there wasn't a door or exhaust pillow in the way, the birds assumed it was fair game. They nested in cockpits, avionics compartments and even engine exhaust cowlings. As a result, unit standing operating procedures evolved and controls minimized the occurrences, but nothing was perfect.

One summer day, after flying about two hours at the beginning of our mission window, I made the decision to not install an exhaust pillow. I wasn't being defiant to troop SOPs; I made the call in hopes of the engine cooling down quicker. We were on quick-reaction force status and scheduled to fly later in the shift. The birds never crossed my mind. Unfortunately, they didn't cross my mind an hour later either when we were rushing to launch in support of ground troops in contact.

While doing my thorough flight checks, I visually verified the pillow had not been installed. However, I haphazardly inspected the exhaust, which is where the bird's nest was located! It was an interesting sight for the attending crew chief on that start. Flames and sparks shot out of the exhaust and caused the crew chief to signal me to abort the start. Guys came running from all over the flight line. Thankfully, the aircraft wasn't damaged, and we quickly continued the mission. Unfortunately, the bird didn't fare so well.

> "A little **SCARE** went a **LONG** way to **TEACH** us a good **FOD** program is as **FLEXIBLE** and **ADAPTIVE** as it is rooted to **ARMY** regulation."

A close call, but no damage. It was a great way to learn a lesson. A little scare went a long way to teach us a good FOD program is as flexible and adaptive as it is rooted to Army regulation. This trooper went on to respond to the hazard that presented itself, and I never again started an aircraft without a thorough inspection of the exhaust.

BRINGING LEADERS INTO RIDER TRAINING

BOB VAN ELSBERG
Strategic Communication Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

The process Soldiers use to get their required motorcycling and driving training will change with the coming of the new fiscal year. Since 2007, Soldiers have used AIRS, or the Army IMCOM Registration System, to sign up for the driving and motorcycle riding training provided under the Army Traffic Safety Training Program. Performed under contract for the Army's Installation Management Command, AIRS allowed Soldiers to self-register by going to an online site, search for the training they wanted and then apply for it. The system allowed safety offices to plan riding and driving training, recognizing the needs of Soldiers at installations worldwide. However, after the contract supporting AIRS ends Oct. 1, the Army has to find another way to ensure Soldiers get the needed training. And the Army didn't have to look far for an effective solution that included the Soldiers' leadership into the process.

The Army will migrate back to the Digital Training Management System, an existing scheduling and tracking tool. Used for years to plan and track individual Soldier training, DTMS now has a POV Licensing Tab. The same DTMS mechanisms Soldiers used in the past to schedule and annotate weapons qualification on the range will now also schedule and track them on the road. And going back to the "old" way has its plusses, according to Charlie Ostrand, DTMS technical branch chief. He and Jimmy Sawyer, Headquarters IMCOM safety manager at Fort Sam Houston in San Antonio, have worked closely to make this a smooth and effective transition. It's one that carries the benefits Soldiers had under AIRS — free training and a clear understanding of the standards — while adding leader involvement when Soldiers need to take required training.

No longer will Soldiers hand carry — and potentially lose — their training records when moving to a new assignment. Ostrand said, "They just show up at their next unit when the personnel system assigns them there. Then the unit can view their training record and update what they've done, where they're going and what they're doing."

Ostrand explained that Walt Beckman of the Driving Directorate at the U.S. Army Combat Readiness/Safety Center played a key role in this transition. Beckman, a member of the Army Traffic Safety work group, approached Ostrand back in 2010 about the idea. He recognized DTMS had the capability to absorb the mission formerly done under AIRS. In the process, DTMS — being a web-based system — offered some very tangible benefits. Beckman realized that using DTMS would bring continuity to the Soldiers' training records, allowing units to better respond to their needs for riding training.

And there was another essential element DTMS brought to safety training.

"What Beckman was so astute at seeing was that safety is a command responsibility in the Army," Ostrand said. "So safety training — making people aware of safety issues and ensuring people are safe in the way they do things — becomes a command problem."

This was important because under AIRS, leaders referred the Soldier to someone else if there was a problem with their training. At that point, leaders lost sight of the process, not knowing whether their Soldier's needs were met or not. Using DTMS eliminates that problem.

The automated system allows leaders to quickly recognize when there is a problem with their Soldier's training. This, Ostrand said, makes it possible for Soldiers to get their chain of command engaged much more effectively should problems arise. Also, leaders are better able to monitor their Soldiers' progress, ensuring they get the required follow-on training at the proper intervals. Being web-based, DTMS allows both instructors and leaders to verify Soldiers attend the training.

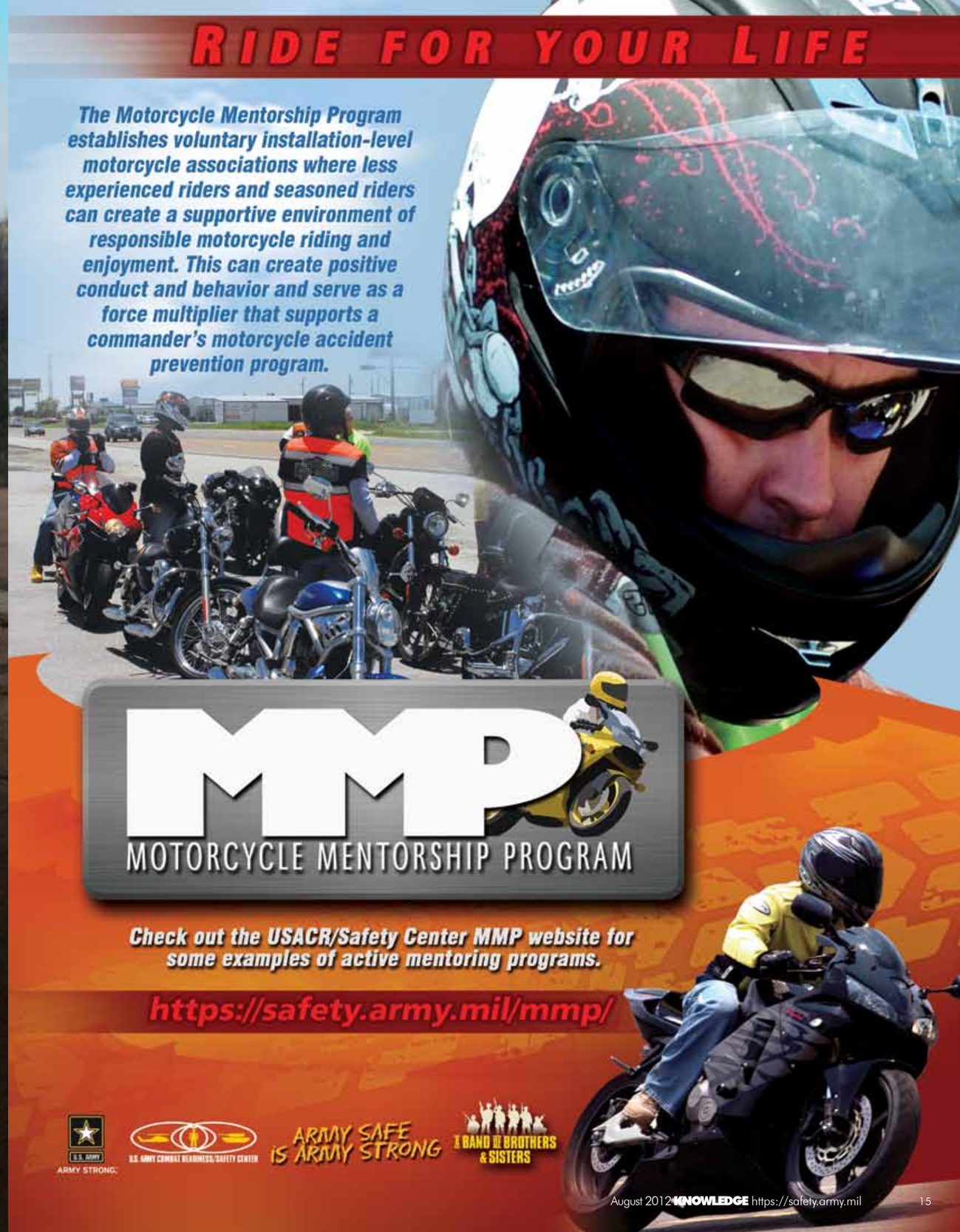
One challenge is ensuring all training recorded in the AIRS program gets transitioned into DTMS so Soldiers receive credit for past training. This could be important for a Soldier who lost their motorcycle training card during the transition. However, the changeover is going well, according to Ostrand. He credits the cooperation provided by Headquarters IMCOM for making it possible to test the new DTMS program at Fort Hood, Texas, and Schofield Barracks, Hawaii.

Sometimes there is wisdom in walking down familiar trails. By adapting DTMS to managing Soldiers' riding and driving training records, the Army has saved itself a lot of time and money, according to Ostrand. Most of the training provided to unit leadership and installation safety officers to use DTMS was accomplished over the phone. This made the transition very cost effective. And in today's Army, saving lives and money are both vital goals.

> "The same **DTMS** mechanisms **SOLDIERS** used in the past to **SCHEDULE** and **ANNOTATE** weapons qualification on the range will now also schedule and **TRACK** them on the **ROAD.**"

RIDE FOR YOUR LIFE

The Motorcycle Mentorship Program establishes voluntary installation-level motorcycle associations where less experienced riders and seasoned riders can create a supportive environment of responsible motorcycle riding and enjoyment. This can create positive conduct and behavior and serve as a force multiplier that supports a commander's motorcycle accident prevention program.



MMP
MOTORCYCLE MENTORSHIP PROGRAM

Check out the USACR/Safety Center MMP website for some examples of active mentoring programs.

https://safety.army.mil/mmp/

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Too Close FOR COMFORT

1ST LT. CUTHBERT CHRISTOPHER
110th Combat Sustainment Support Battalion
Georgia Army National Guard
Tifton, Ga.

Editor's note: The names used in this article are fictitious to protect the Soldiers' privacy.

I'd been in country for several months in support of Operation Iraqi Freedom when my unit was tasked to conduct missions with coalition forces. Sgt. Smith, who was the unit's supply sergeant, and I immediately volunteered for the mission. I wasn't permitted to go because of my position as the motor sergeant and, initially, Smith wasn't able to participate either. However, the command eventually relented and allowed Smith to go.

Once the missions began, Smith was gone for days at a time. When he returned, he usually had some unused ammo. Unbeknownst to the chain of command — and me — Smith was storing his unexpended ammo in a CONEX in the motor pool.

One day, Smith decided to teach primary marksmanship instruction and weapon familiarization on an AT4 shoulder-launched munition in the motor pool near my office tent. For the training, he told the unit armorer to bring an AT4 used in a previous live-fire exercise.

My Soldiers and I weren't participating in the training; we were contending with malfunctioning generators. We were going back and forth between the office tent and the generators, trying to figure out why they kept tripping off. During our troubleshooting, we heard a loud boom. At first, I thought one of the generators had overloaded, but when I saw smoke rising on the other side of a nearby tent, I hit the dirt.

Suddenly, I saw Soldiers running from the training area screaming and yelling for help. One Soldier had blood all over his face. The unimaginable had happened; Smith had fired a live AT4 inside the motor pool! The round from the AT4 hit a jersey barricade, bounced off and then struck a water buffalo before finally falling to the ground. Debris flew everywhere and there were a few minor injuries. Fortunately, due to the proximity of the discharge, the round wasn't activated and didn't cause as much damage as it could have.

Only a tent separated my Soldiers and me from the round. After the chaos cleared, I realized had Smith fired the AT4 at a different angle, it could've activated, hit tents or, even worse, killed someone. To this day, I still think, "What if?"

DID YOU KNOW?

The Range and Weapons Safety Toolbox is a centralized collection of online resources for managing range operations and safe weapons handling. The toolbox hosts various references and materials, including publications, training support packages, multimedia products, ammunition and explosives information, and safety messages and alerts. The toolbox also provides links to useful sites and tools like the Defense Ammunition Center's Explosives Safety Toolbox and the Ground Risk Assessment Tool. Check it out at https://safety.army.mil/rangeweaponssafety/. Shoot straight, stay safe.

Take 'Em a Stand'

CHIEF WARRANT OFFICER 4 TIMOTHY EDGETTE
Accident Investigation Division
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

As deer season draws near, there's undoubtedly a heightened sense of excitement among the most avid — and even novice — hunters. The anticipation of a successful opening-day hunt or a trophy buck appeals to most hunters just as Christmas morning does to a child.

Most of us have already cleaned and inspected our weapons and ammunition, laid out our hunting clothing and knocked off the dust from last year's favorite pair of boots. All set to go, right? Not quite; there's one question left I want to ask all my fellow hunters: Have you focused as much attention on safety and the preparation of your tree stand as you have the other aspects of your preseason planning?

Hunters failing to wear a full-body harness or neglecting to have it properly connected to the tree ranks as the No. 1 cause of tree-stand-related accidents and fatalities nationwide. According to the Alabama Department of Conservation and Natural Resources, five of the 18 tree-stand-related accidents during the 2010-2011 deer-hunting season resulted in fatalities. Fortunately, the statistics for the 2011-2012 hunting season were better, with only nine tree-stand-related accidents and none being fatal.

Besides wearing a full-body harness and ensuring you are properly attached to the tree, what other precautions can you take to ensure your stand is ready for the upcoming hunting season? Regardless of the age, type or style of your tree stand (a climber, lock-on or ladder), there's always a need to do a preseason safety inspection of your equipment. Before the season starts, take out your tree stand and inspect it for rust or cracks and signs of corrosion or rot. Then lay out the tree stand from its stowed and carry position and begin a more thorough inspection of the foot straps, climbing pegs/rails, any chains or cables, the locking hardware (pins, nuts and bolts), and any rope, hoist lines or seat. Check to make sure there are no rips, tears, frays or dry rot on any of the straps. The chains and cables should be smooth to the touch, without any nicks or burs that could cut or tear a lowering line or strap and reduce the overall tensile strength of the cable. All welds should be structurally sound and void of cracks and chips.

As you are inspecting these items, make sure you have the necessary tools to tighten any hardware that may have worked loose. Also have a lubricant or rust inhibitor on hand to free and protect the hardware. The Treestand Manufacturer's Association recommends only replacing unserviceable hardware with hardware from the manufacturer per the owner's manual. Failure to do so could void the warranty or lead to a failure of the stand. Once you have determined your tree stand is serviceable and safe, conduct a pull test of all components while it's still on the ground. Using your hands and feet, pull and tug on the straps, ropes, chains and cables to verify their effectiveness under a simulated load.

When you've finished your inspection, it's time to put your tree stand into operation. Before you begin this step, I recommend you enlist the help of another individual to act as a safety spotter. Wearing all of your safety equipment, start a slow climb. While still in

the starting position, in very close proximity to the ground, place all of your weight on the tree stand and verify its stability and structural integrity. If completely satisfied, continue your climb and go through the entire process of placing the tree stand into an operational position just as you would on opening day. This will help you identify any unforeseen shortcomings such as a lowering line that's too short or a missing locking pin. If at any point during the climb you do identify a risk or a hazard, return to the ground and correct the deficiency. If everything's good to go, complete the climb as if you were preparing for a real hunt.

Once satisfied with the safety condition of the tree stand, reverse the processes and return to the ground. Remove the stand from the tree and stow it back into a carrying configuration. Remember, you should never leave your tree stand outside for an extended period. Sun, rain, snow and ice could deteriorate the integrity of the stand and make it unsafe.

The entire preseason safety inspection of your stand will vary depending on your particular type and model. If you take the time to verify the reliability and overall safe condition of your tree stand, you will not only gain further confidence in your equipment, you'll be well on your way to an accident-free season.

Always adhere to local and state hunting regulations and laws, and refer to the Treestand Manufacturer's Association's recommendations regarding the use of a full-body harness.

Never use a tree stand that doesn't pass a preseason safety inspection. As the season continues, you should always conduct a safety assessment and inspection of your stand before and after every use. Remember, a complete inspection of the stand, hardware, straps and any welds could make the difference between a successful deer-hunting season verses a trip to the hospital or, even worse, the morgue.

"**HUNTERS** failing to wear a full-body **HARNESS** or neglecting to have it properly **CONNECTED** to the tree ranks as the **NO. 1** cause of tree-stand-related **ACCIDENTS** and fatalities **NATIONWIDE.**"

ARE YOU A SHARPSHOOTER?

The Range & Weapons Safety Toolbox contains information and tools related to the safe handling of privately owned weapons, in addition to resources to establish and maintain effective range and weapons safety programs with military weapons.

RANGE & WEAPONS SAFETY TOOLBOX

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ARE YOU *an Experienced Rider?*

MASTER SGT. JOHN COLLINS
G3 Operations
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

If 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 determine that answer, ask yourself certain questions. For example, how much have you ridden and on what types of motorcycles? Or, are you simply an experienced owner; someone who has had a bike for a long time but only spends a limited time riding?

The answers to these questions are particularly important when commanders are wondering what they should be looking for when choosing experienced riders to serve as mentors for their motorcycle mentorship program. Leaders are confronted with these issues every time there is talk about MMPs within the Army. Unfortunately, there is no clear definition in a regulation, field manual or motorcycle handbook. In practice, identifying an experienced rider is like defining what makes some Soldiers natural leaders; nobody can tell you what it is, but everybody recognizes it when they see it.

So how do you know when you're looking at an experienced rider? To do that, you must first address a few misconceptions. One 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 experienced riders. 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 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 decide to start riding in their 30s and haven't been riding for 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.

Over the years I have served, I've realized that we, as leaders, don't always have the answer to every problem. 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 isn't the same process used when selecting mentors for motorcycle riders? Units can follow the same concept by selecting a mentor for each of the two primary types of bikes — sport bikes and cruisers. These two types of motorcycles handle differently and require different skill sets. Many riders don't have experience on both types of bikes, so a single mentor for both types of riders may not be the best choice. The more specific experience and knowledge mentors have to lead the program, the stronger they can make it.

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 necessarily a sergeant first class or the 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.

WHEN THE PLAN CHANGES

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Army Aviation Supply Facility
South Carolina Army National Guard
Eastover, S.C.

The night shift started as it typically did for an air medical pilot. Log in by 7 p.m., talk with the outgoing pilot about the day's activities and check pertinent information like weather, notices to airmen and temporary flight restrictions. The forecast promised an improvement in marginal visual flight rules conditions, so I looked forward to a good movie on the tube by 9 p.m. It was looking like a decent night. The crew brief with the nurse and paramedic concluded with a tongue-in-cheek wish for a quiet night — or at least a normal one. Little did I realize that in a few hours we would be caught in a situation reflecting one of the leading causes of fatal accidents in the air medical business.

The 11 p.m. call interrupted what was a slow night. A stabbing in a local town had prompted the request for air transport. A check of the weather revealed a scattered cloud layer at 2,500 feet with visibility at six miles. The radar showed a few small, isolated showers, but nothing that prompted the crew or me to decline the mission. After a quick walk to the Bell 206L4, we were on our way to the scene. An in-flight observation of the weather confirmed the report received prior to takeoff. This mission should be a quick, easy turn — get to the scene, load the patient and get back to the hospital. Maybe we'll even get a few hours of sleep before shift change in the morning.

The first mission change came soon after landing at the scene. Dispatch notified us that we had to transport the patient to a hospital farther away from our base hospital due to an unusually busy night in the emergency room. A quick re-check of the weather revealed even better conditions for our destination. Our fuel status was good and our patient was stable, so we accepted the change. So much for a few hours of sleep on this shift. Oh well, mission change is a fact of life in the air medical business.

We loaded the patient and departed. I climbed to 2,000 feet and settled in for the flight. Suddenly and without the warning of gradually disappearing ground lights, I found myself fully engulfed in clouds. A feeling of dread and denial swept over me, and for the moment, I did nothing. The first words out of my mouth were, "We are IMC!" The medical crew's initial reaction was total silence. I suspect they, too, were experiencing a bit of denial. Every instinct in me wanted to reduce the collective in an attempt to descend out of the clouds, but my training told me not to. "Fly the aircraft first," I reminded myself.

I tried to return to visual meteorological conditions via a 180-degree turn, but no luck. I struggled to make the mental transition to instrument flight rules flight, still trying to figure out how to get out of the clouds as soon as possible. I reluctantly initiated

the inadvertent IMC procedure and confessed my dilemma to the local approach control agency. The situation deteriorated as heavy rain pelted the aircraft and lightning flashed. I had flown into a developing thunderstorm. I asked the controller for a vector out of the weather. The controller issued me the requested vector with the reassurance that I should be clear of the cell in a few miles.

Things were now happening fast and I constantly had to remind myself to "aviate first, then navigate and, finally, communicate." I had not expected how difficult it would be to maintain altitude, airspeed and heading while simultaneously setting up the avionics for a night approach in instrument conditions. Even with a user-friendly Garmin 430 GPS, this was a challenging task for a single pilot. Fortunately, the controller's information proved correct and I exited the storm while being vectored for the instrument landing system, a few miles from my base hospital. I advised the controller of my return to visual conditions and landed safely, shaken but alive.

As I reflect on that night, a few hard-earned lessons come to mind. First, I realized I had never really settled the issue of when I was going to commit to IMC in deteriorating weather conditions. Although the decision was essentially made for me, the next time it might not be so clear-cut. How much am I willing to "slow down and go down" to maintain VMC? It's a personal decision for each aviator to make; however, when the situation rises, will it be a time of debate or a time of action? Decide beforehand and the mental transition to an emergency instrument condition will be much easier.

Second, I had underestimated how the stress of an emergency amplifies the difficulty of accomplishing simple tasks like inputting the approach into the GPS in a dimly lit cockpit. Training and frequent practice will reduce this stress when the time comes to do it for real and your brain temporarily turns to mush.

Finally, I was lulled into a sense of complacency by the improving weather situation. I let down my guard and got caught. I was forced to be reactive that night instead of proactive. I walked away from my experience determined to be better prepared the next time the plan changes.«

> "**SUDDENLY** and without the **WARNING** of gradually disappearing ground **LIGHTS**, I found myself fully **ENGULFED** in clouds. A feeling of **DREAD** and **DENIAL** swept over **ME,** and for the **MOMENT**, I did **NOTHING.**"

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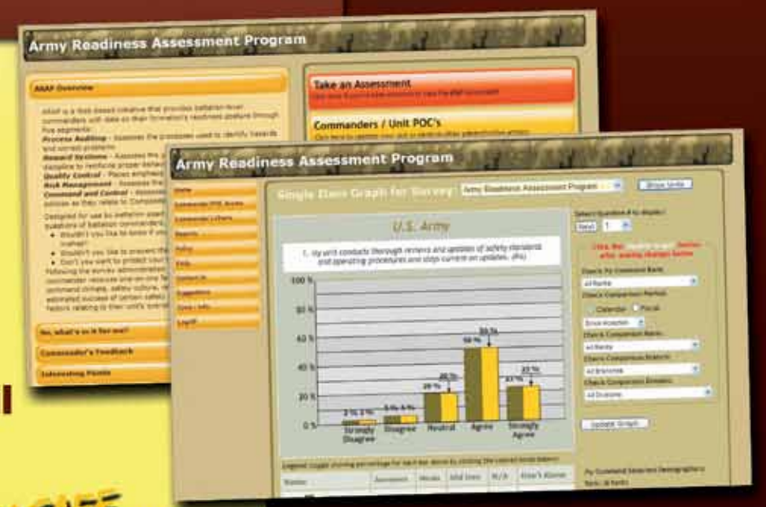

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ARMY SAFE IS ARMY STRONG

Crosswalks or Crosshairs?

RICHARD RUDOLPH
Garrison Safety Office
Fort Knox, Ky.

How many times were you about to step into a crosswalk but noticed the driver in an approaching vehicle seemed oblivious to you? How often did you hesitate and wait, choosing to not let their being oblivious send you into oblivion?

I'd just driven on post and stopped at the 24-hour shoppette to get my morning cup of coffee. It was 6 a.m. on a chilly December day in Kentucky, and I needed that cup of joe. I drove to the parking lot where I worked, got out and headed toward Seventh Avenue to my office. Early as it was, it was still a bit dark outside and I made it a point to look left and right before stepping out. I saw cars stopped at a red light about 300 feet to my left. When I looked to the right, I saw the road was clear. Glancing again to the left for a couple of seconds, I felt it was safe to step into the crosswalk. I wasn't distracted or in a rush as I started across the street.

I was halfway across when a blue Ford Mustang that had been stopped at the red light flew through the crosswalk, nearly clipping me from behind. That really startled me. I yelled, "Watch where you're going!" But he just drove off as if nothing had happened.

When I got to the other side and stepped onto the sidewalk, I just stood there for a moment. I thought how lucky I'd been that I hadn't stopped in the crosswalk to answer my phone, turned around to get something I'd left in my car or dropped my keys and bent down to pick them up. Had I done any of those things, I might have been seriously injured. Even worse, I might not have been around to spend Christmas with my family.

I feel lucky that I wasn't hit that day. Maybe the driver had been thinking about a last-minute gift or was running late for work. Maybe he'd been changing a CD, sipping some coffee, munching on some food or talking on a cellphone. Maybe he just felt like he owned the road. Whatever the reason he sped through a well-lit crosswalk, his actions were irresponsible and wrong.

Because pedestrians have the right of way in crosswalks, sometimes we may tend to feel safe, believing drivers will respect the law. However, when they don't, we're the losers. It's a simple matter of size, weight and momentum — car bodies pack a bigger punch than human bodies.

I thought I was safe stepping into that crosswalk that morning. I know better now and realize it's not enough to just look left and right and left again. When you're in a crosswalk, you need to constantly monitor what is happening around you. For your own safety, never enter a crosswalk while talking or texting on your cellphone or while distracted about the day's activities. Also, before stepping into the street, make sure approaching drivers can see you. Finally, make sure you reinforce crosswalk safety with your children so they'll be safe when crossing a road. Remember, there may not be a crossing guard at every street they have to cross.

TAKING IT TO THE STREETS

The National Safety Council reports that about 5,900 pedestrians are killed by automobiles every year, while another 85,000 are injured. Almost one-fourth of these victims are children under the age of 15. By following the safety tips below, you can protect yourself and your children:

- **It is critical to teach children to look left-right-left before crossing streets.**
- **Cross only at designated crossings. Entering traffic mid-block or from between parked cars is dangerous.**
- **Teach children to never dart out into traffic.**

> "Because **PEDESTRIANS** have the **RIGHT** of **WAY** in crosswalks, **SOMETIMES** we may tend to **FEEL** safe, believing **DRIVERS** will **RESPECT** the **LAW.**"

Don't Believe the Hype

CHIEF WARRANT OFFICER 2 LACEY SMITH
A Company, 7th Battalion, 101st Aviation Regiment,
159th Combat Aviation Brigade
Fort Campbell, Ky.

Last April, my sister talked me into running an insane 24-hour relay race called the Ragnar. Twelve of us decided to take on this challenge — a 192-mile trek through the scenic Wasatch Mountains, just east of Salt Lake City. With so many in our group, I only had to run three legs of the race. But don't be fooled into thinking the race was a piece of cake. Over the course of two days and one night, participants are awake, cheering each other on, wearing wacky costumes, listening to live bands and partying along the route. Good times …

FYI

According to an article published in the May 2009 issue of Runner's World titled "Cruise Control," written by Jason Karp, Ph.D., running downhill requires muscles to lengthen, which can cause microscopic tears in the muscle fibers and generate more force than when running uphill or on flat ground. It's easy for runners to hit top speed on a steep descent – and the faster you move, the harder each foot strikes the ground and muscles endure more pounding. However, these factors don't mean runners should avoid all downward slopes. Research has shown that running downhill can give your pace a lift. A 2006 study published in the Journal of Strength and Conditioning Research showed that when sprinters trained on uphills and downhills, they improved speed and foot turnover more than running uphills or flat surfaces alone. By incorporating downhills into your training, you can weather them better and bounce back from them sooner. To read the rest of this article in its entirety, for running tips and more information, visit www.runnersworld.com.

I found out I was participating in the Ragnar about six weeks prior to race day, so I didn't have much time to train. During the same timeframe, my unit was busy preparing for an upcoming deployment to Afghanistan, so I put the race on the back burner. "Besides," I rationalized to myself, "I'm a Soldier and I've always been in pretty decent running shape."

Every couple of days, I was able to squeeze in about three miles for training. I figured since I had two easy legs and one medium-to-hard leg that I'd be fine. What I didn't take into account was that although my last leg was only five miles, it was all down a steep hill. Who would've imagined running downhill could be so difficult?

I arrived in Park City, Utah, the night before the race. My teammates and I decided to go out for beer and pizza, which, looking back probably wasn't the best decision, especially on the eve of a grueling race. The next day, we woke up at 4:30 a.m. and drove 85 miles to the starting point of the race. Our pirate-like decorated van had our team name on the back — Where's the Finish (WTF) — which everyone seemed to love. For us, this is where the fun began.

We started out with little sleep and a lot of coffee … which eventually led to lots of energy drinks.

The race began beautifully. Everyone's energy and excitement level was high and we were ready for anything. However, by hour 20, we were all dragging butt with bloodshot eyes. We had so much caffeine in our systems that we couldn't sleep if we wanted to. We were all fatigued, and someone in our group had a pulled muscle, while someone else got sick. Undaunted, we carried on.

My last portion of the run was coming up and I figured it would be my "easy" leg because it was downhill. Little did I know that this part of the race would injure me so badly that I wouldn't be able to run for the next six months! I hadn't trained for downhill running, but, to my surprise, I ran my best time. I was proud and felt great afterward; however, the next day was a different story. My knees were killing me, running was impossible and climbing stairs was very painful.

Regrettably, I didn't prepare for this race like I should. Ragnar officials recommend participants train as they would for a half marathon and start training at least eight to 12 weeks ahead of the race, increasing their mileage by 10 percent each week. I was advised to put away my running shoes for a while and take time to heal.

Looking back, I have a love-hate relationship with this race. I'm glad I did it, but wish I had prepared myself better and been spared the six painful months of recovery.

Do it Right ... the First Time

CHIEF WARRANT OFFICER 2 CALEB KITTRELL
C Company, 2nd Battalion (Assault),
2nd Aviation Regiment, 2nd Infantry Division
K-16 Air Base, Korea

How do we teach our young Soldiers to "Do it right ... the first time?" Doing things right the first time is a philosophy, a mentality and a performance standard. Too many people today want to cut corners, get out of work and overlook the little things. In the world of Army aviation, this philosophy costs time, money, resources and, most importantly, lives. Taking your time and doing the job right the first time will not only improve and build a much needed trust between the maintainers and users, but also increase morale, productivity and trust across any organization.

As leaders, we need to stress to our Soldiers the importance of pride that comes along with hard work. I believe the younger generation needs to understand the value of standing behind the work that they perform every day to keep our aviation community safe. A few companies have come out with "DRIFT," an acronym for Do it RIght the First Time. This philosophy also encompasses and applies to Army aviation. The following are my three strategies:

1. Recognize the high cost of cutting corners and making mistakes.
2. Leaders continuously monitor and get out to places where Soldiers are more apt to not take their time and make mistakes.
3. Work proactively to address the flaws and help the chain of command provide solutions.

The first step in correcting some systemic issues in your organization is to help your Soldiers recognize the high cost of cutting corners and making mistakes. The Army has standards for everything and they need to be sought out, instructed and followed. Following the standard ensures quality and uniformity, which will aid in having a safer workplace and in finding system defects. Zero defects are probably an unattainable goal, but when every aspect of the job is subject to scrutiny, better and safer operating practices come about. Also, if Soldiers make mistakes, encourage them to be upfront and honest without fearing repercussion. Sharing lessons learned can help prevent future accidents, saving lives and protecting equipment.

> "When **SOLDIERS** see leaders participating, they **RECOGNIZE THE IMPORTANCE OF THEIR JOB** and tend to perform at a **HIGHER LEVEL.**"

Leaders, lead from the front and get involved. When Soldiers see leaders participating, they recognize the importance of their job and tend to perform at a higher level. Showing your Soldiers the right way and enforcing the standard will steer your unit toward success. As important as Advanced Individual Training is, Soldiers need to add the experience that comes with the day-to-day performance of their tasks to build their skill levels. The most important thing is to encourage them in doing it right and doing their best. That's all you can ask. They will listen.

Lastly, if something is broke, fix it. It's easy to say but sometimes hard to execute. Do you have people in your unit always complaining about problems and never providing solutions? If you see a problem in the way operations are being performed, bring it to the forefront — either with the individual responsible or to the leadership that can effect change. Don't leave an issue for someone else to find; it will only build and may end up hurting your credibility. Address bigger flaws at the command level to bring about change. Never go to the command without a solution to fix the problem.

Untrained and Unlucky

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I was 18, airborne and invincible. I'd just received my enlistment bonus and decided it was time to get some transportation. I got one of my fellow troopers at Fort Bragg, N.C., to take me to the nearest Suzuki dealer. I wanted to buy a 650 GSL, but my credit wasn't good enough to qualify for a loan, so my only option was to pay cash for a 450 GSL. Being the highly intelligent and experienced (translate that young and dumb) person I was, I quickly purchased the motorcycle. After a quick lesson on how to ride by the salesperson, I was on my way.

Within four hours, I stopped at the company orderly room to visit a friend who was pulling duty as the charge of quarters runner. Afterward, as I was pulling out of the parking lot, I managed to dump the bike and break a lens cover. All things considered, not a very impressive performance for my first day of riding. It dawned on me maybe there really was a good reason for taking motorcycle safety training.

Looking back, I realize how lucky I was I didn't kill myself. I was safer jumping out of a perfectly good aircraft in flight than I was riding that motorcycle. I'd been trained to jump out of airplanes, but I hadn't been trained to ride a motorcycle. There was a course available at the time, but my own arrogance kept me from taking it. As far as motorcycle riding goes, I was lucky more than skilled in the beginning.

Unfortunately, a young trooper who joined my fire team a couple of years later wasn't as lucky. One day after the last formation, Pvt. Green (a fictitious name) asked me to help him with a decision. You see, he'd also received a bonus for going airborne. I liked him a lot, I sensed his goodness and was always available for any questions he had.

When he approached me, he was unable to decide whether to put the money in the bank or buy a motorcycle. A friend of his in the headquarters platoon had recently bought a bike and was encouraging him to get one so they could ride together. I told him about my riding experiences and suggested he put his money in the bank, emphasizing that would be the wisest choice. He promptly thanked me and said he agreed.

A couple of days later, he appeared with a new Honda. I was surprised and asked him what happened. Inside I already knew the answer; he'd buckled under the pressure from his friend to buy the bike. I told him to take the rider safety course and be careful on the road. He told me he would and that he'd bought the most expensive helmet at the store, just in case.

About a month later, I received a call at home from the CQ. He told me Green died in a motorcycle accident while riding with his friend on Yadkin Road as the two were going to Cross Creek Mall. Green was on the inside and his friend on the outside position in the right lane when a car in the left lane hit Green's friend, who, in turn, struck him. Green lost control and dumped the bike, striking the curb with his helmet. The impact was so strong it cracked the helmet and caused severe head trauma. Sadly, he never even made it to the emergency room. Green never took the motorcycle safety course. Had he, he might still be here today. His was the first memorial I attended where I personally knew the person the rifle, boots and helmet represented. It was a poignant moment for me when, during the roll call, he was not there to answer his name.

Since I began riding more than 30 years ago, riders have become much more aware of the importance of riding safety. Today, we have a mandate that all Soldiers who ride must first receive Motorcycle Safety Foundation-based training. Despite that, we still suffer losses from motorcycle accidents. I still ride today and always have my card showing I have completed my MSF training. Maybe if Green had taken that training, it would have saved him.

There is a saying that goes something like this, "We know the moment when we were born, but we don't know the moment when we will die." What I learned from my own mistakes is that knowing how to ride safely and building experience is the best way to make sure that second date comes later — preferably, much later.

I took my family to a carnival on Fort Benning, Ga., when my son was 4 years old. He was so excited when we arrived, especially when he saw all the rides, games and cotton candy booth. We were excited, too, but at the time, we didn't have much cash and knew we'd have to be picky about what we rode, played and ate.

A Carnival Lesson

COMMAND SGT. MAJ. RONALD OROSZ
1st Army Division West
Fort Hood, Texas

Before jumping in line for the rides, we played a few games. After walking away empty-handed, my son decided it was time to head for the rides. We started easy with the bumper cars but quickly moved on to a fast rock-and-roll tracked machine with super-loud music and then to the giant Ferris wheel.

I didn't have much left for ride tickets after shelling out a lot of cash for overpriced carnival food. I decided I could save some money by asking a young boy in line, who appeared about 7 or 8 years old, to ride in the same car with my son and keep an eye on him. He agreed and before they boarded the ride, I told my son multiple times to stay in his seat. To board each car, a little gate opened and the kids got in their seats. The ride's operator controlled the boarding by allowing the wheel to circle slowly as each set of riders entered. After six or so rotations, I watched my son's car near the top of the ride as people continued to board.

My wife and I were chatting and navigating the hot dog condiment counter when I looked up to check on my son. I was horrified when I saw him standing in the cart, which was now 60 feet off the ground, leaning over the gate. The young boy riding with my son paid no attention to him. Immediately, I yelled at the top of my lungs, "Sit down!"

> "It is a parent's responsibility to **WATCH AND SUPERVISE** their **CHILDREN.**"

In a flash, I visualized my son tumbling out of the car and wondered where I could stand to catch him. Could I even get there in time? Time seemed to stand still and, at the same time, moved light years in a matter of seconds. I continued to yell for my son to sit down. I didn't care who heard me; I was terrified! I hoped yelling at the ride operator to stop the Ferris wheel until my son sat down was the answer. Finally, he did sit, but my heart was still racing. I demanded the operator bring him down immediately. While my son was now in his seat, I motioned to him to stay put until his car was brought back to the bottom.

I felt nervous, scared and helpless. Mostly, though, I felt angry — not at my son, but at my faulty decision-making. I put my son's safety in jeopardy to save a few bucks. Our day at the carnival ended abruptly.

I learned a tough, hard lesson that day: Never take shortcuts when it comes to the safety of your family. It is a parent's responsibility to watch and supervise their children. Ride the ride with your child and make sure they stay safe. It's not worth the small amount of cash you'd save by letting them ride without an adult. From that day, I rode every ride with my son or daughter to ensure they were properly secured in the safety restraints. And, of course, I added a personal touch of safety by holding them tightly so they didn't get hurt on my watch. Enjoy the ride, but stay safe!

No one truly knows what it's like to fly in a combat zone during instrument meteorological conditions until they're in the middle of it. As young aviators, we're lectured repeatedly about the horrors of entering inadvertent IMC and trained to manage it as an "emergency" flight only.

Training Saves Lives

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Why should IIMC happen when we train our crews to avoid it at all costs? If the weather gets bad, crews are trained to turn around and go back or land immediately and wait it out. If trained, equipped, prepared and proficient for IMC and instrument flight rules flight, crews can request an IFR clearance from air traffic control and continue the mission IMC/IFR. The only caveat to that is in the combat theater, the ATC systems are not in place to conduct a real IFR flight with an IFR clearance, so we can't just land and wait it out.

The solution is simple: GPS. We use a GPS day in and day out for conducting missions. Although not certified for IFR flight, we use it as a backup to our certified navigational equipment. I believe the GPS should be required in the combat theater because it is a great tool for training and situational awareness. What we had for our area of operation was "emergency GPS" approaches. This was the only way we could recover, in case we did go IIMC, to a safe location.

As an air mission commander in an air ambulance company deployed to Afghanistan or Iraq, I've often received missions in remote AOs for medevac support. The first seven years of my aviation career were in the assault world and it was beat into our heads that mission training was crucial. We took every chance to conduct training flights in our air ambulance company and performed hoist training, pinnacle approaches and landings, dust landings and, of course, emergency GPS approaches.

Our leadership supported this training and the values it instilled in our junior aviators in preparing them for worst-case scenarios in the combat environment. Conducting this training with many junior aviators allowed me to show how valuable it is to set up the GPS for an approach and, in turn, be sure of the system. At first, they didn't understand why we trained on these approaches so frequently. However, during the medevac mission I am about to describe, they saw the benefit of this training.

It was a dark and stormy night with zero illumination when we got a call about 11 p.m. for an urgent 9-line medevac mission to rescue a Soldier who had lost his eyesight. Visibility was below 300 meters due to a dust storm,

> "The **MISSION** was a **SUCCESS** because of our **STRONG CREW MIX**. We conducted a **CREW BRIEF THOROUGHLY** before each **FLIGHT**."

and the airfield was IFR where the patient needed level-3 treatment. After talking to Air Force weather, our two crews discussed the mission with safety in mind, including using the available instrument approaches if needed.

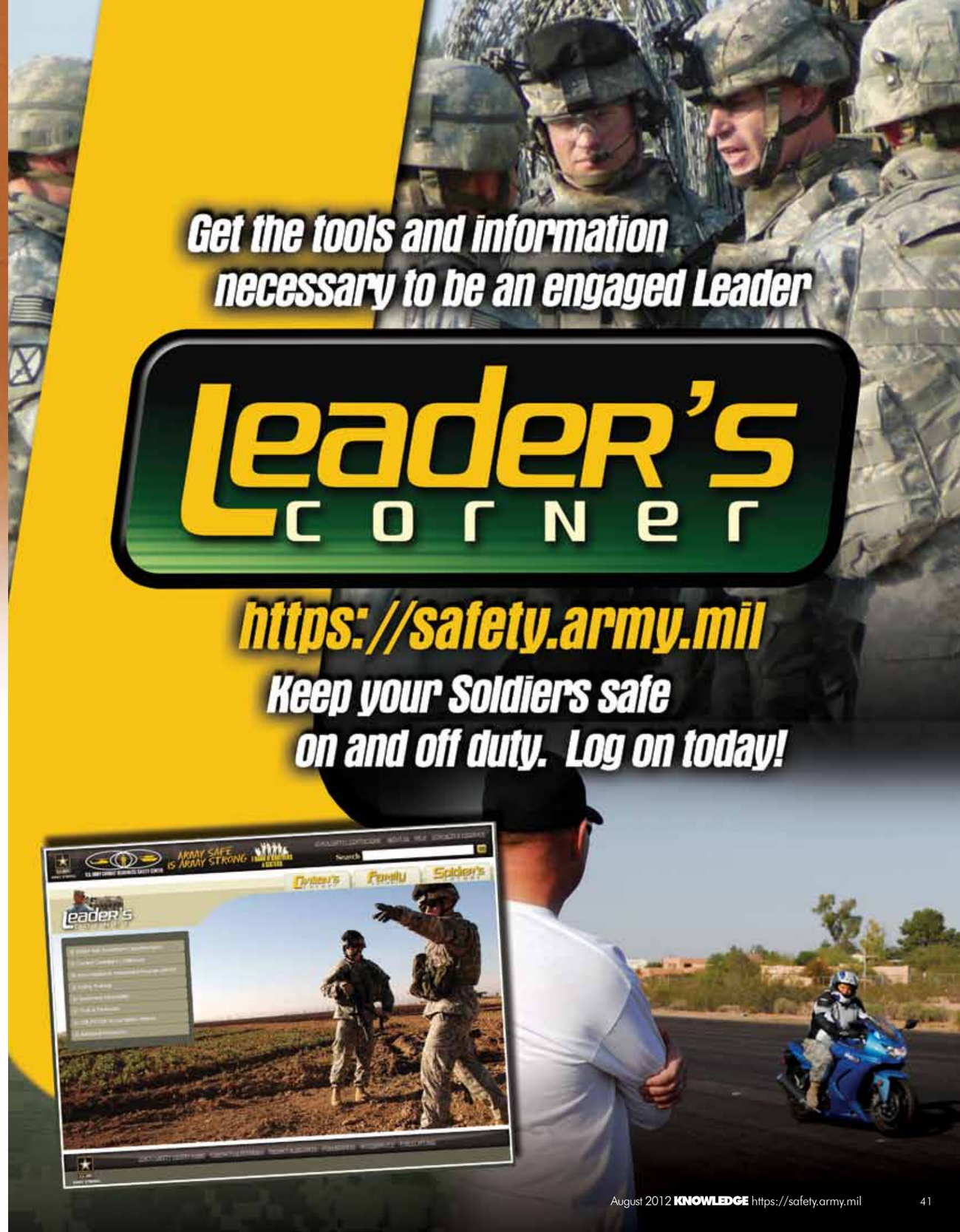
Everyone agreed we needed to attempt this mission, but only if we took the pilot in command of our chase aircraft and fly single ship with dual PC/AMC. Every crewmember understood if we were not comfortable flying the mission once we flew outside the wire that we could return to the patrol base and end the mission. In the crew brief, we also discussed our return options for this mission and the fact that the emergency GPS approach really could be our last option for a successful recovery.

My new crew jumped in the medevac aircraft and, in a short time, we were on our way to pick up the injured Soldier. As soon as we left the light of the patrol base, the reality hit us that we could not see the ground unless we were below 90 feet above ground level and flying 70 knots indicated airspeed. Focused on the mission, the crew coordination was flawless, with the medic and crew chief backing up the pilots with their scan, calling out altitude and obstacles. We safely landed to the point of injury for patient pickup and the crew agreed we needed to fly to the level-3 treatment facility, despite the IMC conditions.

My co-pilot and I then set up the aircraft for instruments, pulled out our approach plate to conduct an instrument takeoff and get us above the dust storm and recovered to the forward operating base where the treatment facility was located. The flight to the FOB was no different from the many training flights we had conducted in prior months.

The mission was a success because of our strong crew mix. We conducted a crew brief thoroughly before each flight. This enhanced our situational awareness and the fact we had often conducted training flights and practiced emergency GPS approaches prepared us for a situation just like this.

Here's proof that training is essential to the survival of medevac aircrews and the missions we conduct on a day-to-day basis in a hostile environment. Effective coordination comes from training to eliminate all unknown variables and to the standards for these emergencies stated in the unit standing operating procedures using aircrew training manual standards. Training not only saved the patient; it also saved the entire crew.



My 'Altimate' Seat Belt Experience

AMY VAN RIPER
Redstone Arsenal
Huntsville, Ala.

While I've always worn my seat belt, it wasn't until last year that I personally understood why it was important.

One morning, some close friends stopped by the house to borrow my husband's truck so they could pick up a big-screen TV. We traded vehicles for the morning and agreed to meet for lunch at their house. It was the first time I'd driven their Nissan Altima coupe. Both of my friends are several inches taller than me and, while I adjusted the seat, I consciously decided not to adjust the seat belt. It rode high on my neck and was irritating, but I figured as long as it was on, that was good enough.

I was about a half-mile from their home when I stopped in a left-turn lane waiting for an oncoming Toyota Highlander to pass. The cross streets were controlled only by stop signs. From my left, I saw a speeding car approaching and immediately realized it wasn't going to stop. The driver barreled into the intersection, never even touching her brakes before T-boning the Highlander. The impact sent the Highlander swerving toward me, hitting me head-on at 45 mph.

What happened next was an odd experience I now refer to as "instant slow-motion." Everything happened amazingly quickly, yet I saw every bit of it in clear detail until the moment of impact. Suddenly, I was sitting in the car with a deployed airbag — airbag dust floating in the air — as the Highlander crunched the Altima's front end. Fortunately, no one was behind me, so my car had room to move backward. When I finally stopped, my car had been pushed back some 40 feet from the point of impact.

The driver of the Highlander helped me out of the car and asked if I was OK. A quick assessment proved I wasn't seriously injured. I said, "My neck is on fire." He was immediately concerned about a neck injury, but I clarified that it was the front of my neck. I pointed and he saw what I meant — a dark red abrasion caused by the seat belt riding too high. Had I adjusted it to the proper position for my height, I could have prevented that injury. In the end, I was also bruised where my seat belt contacted my right hip, and my right shoulder was bruised from being hit by the GPS, which had become a projectile. My eyes needed to be flushed of the airbag dust and I ached all over for a couple of days. All in all, my injuries were very minor considering what they could've been had I not been wearing my seat belt. Although the crash destroyed two vehicles and left one just short of totaled, everyone was wearing their seat belts and walked away with only minor injuries.

While not being injured was the biggest blessing of the whole incident, there was another reason for me to be thankful. My husband was in the middle of an Iraq deployment, and I was home taking care of our kids, who were in school. Without a seat belt, I could've been badly injured and would've needed someone to take care of the kids until family arrived or my husband was able to get home. Though I know his unit would have been able to fill the void, my accident would have affected unit readiness by taking my husband out of theater. That's not something I would have wanted on my conscience, especially when it could have been so easily prevented by wearing a seat belt.

There's not a single excuse for not wearing your seat belt; but there are many good reasons why wearing one is important. First and foremost, they'll save your life and prevent serious injuries, not to mention wearing seat belts is the law in every state but New Hampshire. In addition, they also prevent heartache and misery for friends and family and protect unit readiness. Even if you are the best driver — one who obeys the traffic signs and rules of the road — you have no control over what other drivers do. When "crunch" time comes, wearing a seat belt is the one thing you can control.

LOST

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, email safe.knowledge@conus.army.mil.

AVIATION

AH-6M

CLASS C

- The aircraft touched down hard during a multi-ship landing. Postflight inspection revealed damage to the forward-looking infrared radar and fuselage.

CH-47D

CLASS A

- The aircraft was at a hover during final approach when the crew experienced a common missile warning system "deceleration," and flares were expended. The aircraft drifted left and the forward main rotor blade contacted rising terrain. The aircraft came to rest upright.

CH-47F

CLASS C

- The aircraft experienced a No. 2 engine overtemp/torque during a slingload landing. Postflight inspection confirmed engine replacement was required.

MH-47G

CLASS C

- The crew experienced a rotor system overspeed indication (116 percent) during descent. Postflight inspection confirmed the condition.

HH-60L

CLASS C

- The crew was conducting high-altitude mountain environmental training when the MRBs struck a tree during the approach to the landing zone. The damage was minor to three MRBs and significant to one blade, requiring replacement.

UH-60L

CLASS A

- The aircraft crashed during a medevac mission, which resulted in four fatalities.

UAS

RQ-7B

CLASS B

- The ground control station lost link with the unmanned aircraft during the return flight. The UA subsequently descended and crashed into a mountainside. A total loss was reported.

GROUND

ACV

CLASS A

- A Soldier was killed when the MaxxPro Mine Resistant Ambush Protected vehicle he was a gunner in overturned.

AMV

CLASS A

- A Soldier was killed and two others injured when the HMMWV they were riding in was rear-ended by a commercial 26-ton flatbed truck, causing a chain reaction accident that injured three additional Soldiers in the HMMWV ahead of them.

LOSSES AVIATION — FISCAL 2012 Class A/Fatalities thru June 2012

ATTACK	3/0
RECON	2/4
UTILITY	5/5
CARGO	3/0
TRAINING	0/0
FIXED-WING	1/0
UAS	3/0
TOTAL	17/9

as of Jun. 27, 2012

LOSSES GROUND — FISCAL 2012 Class A/Fatalities thru June 2012

AMV	11/8
ACV	5/3
PERSONNEL INJURY (includes weapons-handling accidents)	20/15
FIRE/EXPLOSIVE	2/2
PROPERTY DAMAGE	1/0
TOTAL	39/28

as of Jun. 27, 2012

Other

CLASS A

- Three Soldiers were killed when the Army-leased SUV they were traveling in veered off the road and entered a river. Three local nationals also died in the accident.

Personnel Injury

CLASS A

- A Soldier died after he entered a pond and failed to resurface.

CLASS B

- A Soldier was hospitalized for a heat injury after collapsing during a marathon. The Soldier remains on kidney dialysis.

DRIVING

POV

CLASS A

- A Soldier was killed when he crossed the centerline and collided head-on with an approaching vehicle.
- An unbelted Soldier was killed when he lost control on an exit ramp and was partially ejected. The driver and his civilian passenger had been drinking prior to the accident.

POM

CLASS A

- A Soldier was killed when he lost control of his motorcycle, drifted into the oncoming lane and hit a vehicle head-on.
- A Soldier was riding his motorcycle in the left lane of an exit ramp when he drifted into the right lane, struck a vehicle and was thrown into the guardrail and killed.
- A Soldier was killed when he lost control of his motorcycle and crashed. Despite having completed Motorcycle Safety Foundation training, the Soldier failed to wear his personal protective equipment and suffered fatal head injuries.
- A Soldier was thrown from his bike and suffered paralyzing injuries when an automobile driver violated right of way and entered the Soldier's path of travel.
- A Soldier died a month after completing the MSF Basic *RiderCourse* when he lost control of his newly purchased motorcycle on a winding road and struck a post.
- A Soldier was killed when he struck a vehicle that turned left into his path.

LOSSES POV/POM — FISCAL 2012 Class A/Fatalities thru June 2012

CAR	25/24
SUV/JEEP	7/6
TRUCK	2/2
MOTORCYCLE	36/33
PEDESTRIAN	3/3
OTHER*	1/1
TOTAL	74/69

*Includes vans, ATVs, snowmobiles and bicycles

as of Jun. 27, 2012 — Fiscal Year 2011: 70 — Three Year Average: 71

CLASS C

- A Soldier suffered a broken wrist, finger and other injuries when he collided with a pickup driver who ran a stop sign and stopped in the middle of the street.

Pedestrian

CLASS A

- A Soldier was found lying in a highway median with a spinal cord injury after he was struck by a hit-and-run driver. The Soldier is expected to be paralyzed from the waist down.

TAKE THE CHALLENGE, LEARN THE LESSON.

FIREARMS safety techniques

GIVE IT A SHOT!

Firearms Safety Techniques, an interactive site, is available for Soldiers, Family members and Civilians to learn about off-duty safe firearms handling. Visit the site for more useful firearms safety resources.

Visit https://safety.army.mil/firearm-safety and get on target today

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Family engagement kit

https://safety.army.mil

On the home front, a Soldier's "battle buddy" is often his or her Family. Check out the new Family Engagement Kit to learn how you can look out for the safety of your Soldier. The kit features a variety of tools, including videos, real-life stories, resources and tips to keep your Soldier safe.

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UP THE CREEK: ATV PROTECTIVE GEAR

KNOWLEDGE

VOL 6 SEPTEMBER 2012

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

WINTERIZING

DON'T LET FROST BITE YOUR EQUIPMENT

- BROWNOUT LANDINGS
- RECREATIONAL HIKING
- SEAT BELTS

DVE OPERATIONS

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LEADERS SOLDIERS CIVILIANS FAMILIES

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BREAKING THE CYCLE

FROM THE DASAF

Many of you are familiar with our semi-annual seasonal safety campaigns, which have been a staple of safety programs across the Army for several years. But in our continuing efforts to provide you the timeliest and most relevant information available, we've decided to switch to a format that coincides with the true change in seasons. On Sept. 4, we will launch the Army Safe Autumn campaign at https://safety.army.mil, followed by separate campaigns for winter, spring and summer at appropriately timed intervals. Risk and hazards change with every season, so we hope this format helps you build even more proactive accident prevention programs.

As always, we welcome your feedback — please let me know what you think of this new format and how we can serve you better. Army Safe is Army Strong!

TIMOTHY J. EDENS
Brigadier General, USA
Director of Army Safety

FROM THE CSM

"**LEADING** Soldiers is never simple, but we **DON'T HAVE TO OUTSMART** or manipulate them into showing us their high-risk behavior. It's often **RIGHT IN FRONT OF US ALL ALONG.**"

I just passed my one-year anniversary here at the USACR/Safety Center, and while I thought I knew a little about safety before, I feel I can finally speak with some authority on the subject! It's been a busy 12 months, and one of the things that's become obvious to me during my various travels is just how many Soldiers we have in home station now. With combat operations in Iraq over and the drawdown continuing in Afghanistan, our installations have come alive with the sounds of early morning cadences and Families enjoying time together. It's great to have our Soldiers home, but we should also be aware that they now face more off-duty risk than perhaps ever before.

Anyone who's been around the Army any length of time knows the cyclic nature of our business, and accidents are no exception. Looking back at more than 30 years of data, accidental fatalities have declined, held steady, jumped unexpectedly, fallen again, stabilized and then increased before repeating the cycle time after time. This proves to me that safety, just like doctrine or tactics, is one of those things you never consider "done." Risk is constantly changing, and we have to evolve along with it.

So here we are in September, prepared to wrap up fiscal 2012 with one of the lowest accidental fatality rates in recent memory. This is an ongoing trend that started in fiscal 2008 and, for the first time ever in our Army's history, we've actually reduced accidental fatalities during sustained combat operations. Great news, no doubt — but what can we do to ensure the cycle of accidental loss doesn't surprise us again, especially now that most of our force is transitioning back to the training environment?

I believe the answer to that question lies in the very foundation of our Army: training, discipline and standards, on the part of both leaders and Soldiers. There is absolutely no distinction between a leader and his or her subordinates regarding these three critical issues; we're all accountable to the Army 24/7, a fact that must be enforced to the lowest levels in our formations. To do so, however, both senior and junior leaders must show more than a passing concern for their Soldiers off duty.

That means leaders have to know their Soldiers, their likes and dislikes, their Family backgrounds, the things that make that Soldier uniquely them. No one expects our leaders to play the part of a psychologist, but the signs of high-risk behavior can become fairly obvious when you get to know a person. It's reasonable to assume a Soldier who likes to push the speed limit in a tactical vehicle might take the same chances in their own vehicle off duty, or the one who thinks personal protective equipment is optional on the job feels the same way on their motorcycle. Leading Soldiers is never simple, but we don't have to outsmart or manipulate them into showing us their high-risk behavior. It's often right in front of us all along.

This premise is the focus of the USACR/Safety Center's newest campaign, "Know the Signs." Beginning Sept. 4 and running through fiscal 2014, multimedia materials, including posters, videos, fact sheets and feature articles, will be released at least quarterly at https://safety.army.mil. Each product is designed to heighten awareness of potential risk factors and help leaders and Soldiers at all levels address the risk before tragedy strikes. This great initiative is sure to resonate with your teams, so please check our website often and let us know how you're using the tools, along with your suggestions for future iterations.

The sight of a thriving installation should fill us all with pride, knowing where these Soldiers have been and all they've been through to make it home. Now we have to make them understand the game isn't over; indiscipline and high-risk behavior are formidable and stealthy, but not unbeatable, opponents. Know the signs, know what right looks like and do what's right — those are words we all can live by!

Army Safe is Army Strong!

RICK STIDLEY
Command Sergeant Major
U.S. Army Combat Readiness/Safety Center

DVE Safe Operations

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Surviving in a degraded visual environment is one of Army aviation's top priorities. Over the last 10 years, DVE conditions have been the leading contributor of deaths and loss of aircraft. In addition, DVE is a flight safety issue in peacetime training as well as in overseas contingency operations. Safe operations in DVE are as important to the aircraft's survivability as protecting it from enemy weapons systems.

A DVE is one where reduced visibility affects situational awareness, making it harder to safely control the aircraft compared to flying in visual meteorological conditions. Pilots often experience DVE during flight conditions of partial or no visibility due to fog, heavy rain or dense obscurants such as fine sand, dust, smoke, blowing debris or snow. These conditions are most critical to pilots flying rotary-wing aircraft operating visually at low altitudes, such as during takeoff, hover, terrain flight and landing. Problems caused by the loss of situational awareness to DVE often result in pilots maneuvering their aircraft into unusual attitudes or experiencing excessive drift, rollover and/or contact with adjacent aircraft or obstacles.

Vulnerabilities and Gaps

Operating in DVE is primarily a rotary-wing gap. Army aviation rotary-wing aircraft currently have extremely limited capability to maintain aircraft/environment situational awareness and control in DVE. No true capability to see through obscurants and maintain visual situational awareness exists at this time. Existing flight handling qualities, essential for maintaining adequate control as visual cues degrade, range from stabilization assists to advanced flight control systems such as the Digital Advanced/Automated Flight Control Systems.

DVE STRATEGY

Sensors
- Sensor Options:
  - RADAR
  - IR
  - MWIR
  - LIDAR
  - LADAR
- Sensor Integration

Flight Handling
- Improved Handling Qualities (Autopilot/hold functions)
- Ground Taxi
- Integrated Sensor/database inputs
- Takeoff/landing
- A/C Performance Models
- Hi-Res Radar Altimeter
- Hi-Fid Navigation EGI

Displays, Symbology, Cueing
- DVE Symbology and Visual/Aural Cueing
- Displays:
  - MDM
  - HUD
  - HMD
- Tactile Cueing (TSAS)
- Panel Mounted MFD

Synthetic Backbone
- Sensor Fusion
- Synthetic Vision
- Improved Data Storage/Processing
- Geo-Position Accuracy
- Maps/Data:
  - DIGMAPS
  - DAFIF
  - VVOD
  - DTED

Evolutionary Strategy

Initial Capabilities
Single-ship
Survive the Environment

Future Capabilities
Multi-ship
Exploit the Environment

Displays and symbology currently fall short in providing heads-up/-out capability and in providing symbology tailored to operating in DVE. In addition, there is almost no integration across the DVE "solution set" (sensors, flight controls, displays) in any fleet.

DVE Concept

Simply put, the initial focus is on individual aircraft surviving the environment. In the future, the focus will include allowing multiple aircraft to exploit the environment. The first priority is to give pilots the situational awareness necessary to operate safely in brownout/whiteout conditions. This is especially important during takeoffs, landings and hovering. However, the ultimate goal is for pilots to be able to operate in DVE in all mission profiles and phases of flight, even to the point of using DVE to gain a tactical advantage.

Future developments will enable aircrews to conduct a full range of operations in DVE, in both single- and multi-aircraft roles. Program goals include improvements in the accuracy of the digital database and obstacle overlay, full 360-degree spherical collision avoidance capability and the integration of fused imagery with superimposed symbology on digital instrument panels. Another goal is to include displays allowing heads-up/-out operations. "Low-hanging fruit" for heads-up/-out options include helmet-mounted displays for both rated and non-rated crewmembers.

Future DVE developments will contain a fully integrated capability to digitally "offboard" mission-essential terrain and hazard information through platform communication systems. As terrain and obstacles are detected, aircraft systems will communicate this information in real time via the network to automatically update the common operational picture.

Sensor Solution Technologies. While no "silver bullet" sensor solution exists to penetrate all obscurants effectively in every flight mode, industry is approaching the DVE problem set with a variety of technologies. The final solution may be a mixture of sensors. Current technologies being evaluated include, but are not limited to, Millimeter Wave Radar, Long Wave Infrared, Medium Wave Infrared, Light Intensification Detection and Ranging, and Laser Detection and Ranging.

Overall System Solution Approach. The Army will soon begin analyzing the alternatives to gain a better understanding of what its future DVE capabilities solution will look like. Using a "three-legged stool" approach to DVE of sensors, flight handling and displays, if one leg brings significant capability to the problem set, a majority of the effort may be focused on it. The other legs will receive attention directly proportional to their value in solving the problem set.

Regardless of the "golden leg" for solving the initial capabilities gap, a sensor will be required to solve the future capabilities gap. This notion lends credence to getting the right sensor up front instead of initially building a marginal sensor and then fielding a newer one in the future. The sensor that provides the initial capabilities will likely be able to provide the future capabilities after applying minor changes.

Quick-Reaction Capability. In the interim, the Product Office for Aviation Networks and Mission Planning is filling an operational needs statement from Afghanistan in response to the initial problems with brownout during takeoffs and landings. Five Sierra Nevada Corporation Helicopter Autonomous Landing System units are being developed and will be fielded on deploying or deployed UH-60Ls in theater in fiscal 2014.

For further information on the validation requirements of DVE, please consult the Aircraft Survivability Initial Capabilities Document (distribution restricted to Department of Defense and U.S. DoD contractors only). It can be accessed via the Knowledge Management Decision Support tool via SIPRNET or by contacting TRADOC Program Office-Aviation Brigades.

> "**FUTURE DEVELOPMENTS** will enable aircrews to **CONDUCT** a full range of **OPERATIONS IN DVE**, in both single- and multi-aircraft roles."

I'd set the cruise control on 70 mph that evening as I enjoyed the long drive home from leave. I was listening to the radio, resting my foot on the gas pedal to give me an added 5 mph. You know how it is, anything to whittle a little more time off the drive.

Cruisin' for a Bruisin'

CHIEF WARRANT OFFICER 3 GABRIEL TORNEY
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I noticed rain drops lightly hitting the windshield, but they soon came down in torrents. However, I wasn't worried because I was an experienced driver and had driven this route many times. Before heading out, I'd checked the tires, headlights and wipers and even treated the windshield with Rain-X. I owned a large rear-wheel drive car — one of the safest types of vehicles, according to the Travel Risk Planning System report I filled out before leaving.

Spotting a large puddle ahead, I got off the gas to slow down. In the past, that normally worked, but this time was different. My car began slowly fishtailing — first in one direction and then the other. I reacted by turning into the skids, but things only got worse. I was fishtailing so badly I could see the headlights of the vehicles behind me through my windshield.

Instead of slowing down, I heard my engine speeding up, so I tapped the brakes. Fortunately, I was able to straighten out and pull over to the shoulder. I nearly had a heart attack sitting there while waiting to calm down. I'd barely avoided totaling my vehicle. If the cars trailing me had been any closer, there'd have been mangled metal on the road — or maybe worse.

I tried to figure out why this happened. I'd prepared for the trip properly, was experienced, took the appropriate steps and even prepared for the weather. It took me a while, but I finally realized what occurred. Although I'd taken my foot off the gas to slow down, the cruise control was still engaged at 70 mph and providing power to the rear wheels. When I hit the puddle, my tires immediately began to hydroplane as the engine actually increased power to try to keep me at 70 mph. That is what sent me out of control. It never occurred to me that would happen.

> **"CRUISE CONTROL,** a welcome convenience for long trips, **CAN POSE** its own **RISKS** when the **WEATHER TURNS NASTY."**

When I looked up this online, I found the following information from the Insurance Corporation of British Columbia: "The only way to stop wheels from spinning and maintain control is to immediately reduce power. An activated cruise control system applies continuous power, keeping the wheels spinning. By the time you disengage the cruise control it may be too late — you may have already lost control."

So what can you do when you're driving on wet roads? The National Safety Commission recommends you manually disengage your cruise control the moment it starts to rain or you encounter wet road conditions. The sooner you do it the better because even tapping the brakes to turn off your cruise control can send you skidding on a wet road.

Staying safe on wet roads requires being especially alert to the added risks involved. Cruise control, a welcome convenience for long trips, can pose its own risks when the weather turns nasty. To keep your drive from turning nasty, stay alert to stay alive.

LIGHTNING CRASHES

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According to the National Weather Service, dozens of people are killed and hundreds more injured every year by lightning strikes. Sadly, many of these victims were not aware of the danger they faced.

Lightning is the result of the build up and discharge of electrical energy. The two most common types of lightning are cloud-to-ground and intra-cloud (sometimes called cloud-to-cloud). Cloud-to-ground lightning is the most dangerous form and occurs during the dissipating stage of a thunderstorm. Intra-cloud lightning is the most common and occurs between oppositely charged centers within the same cloud.

The first step to reduce the risk of being struck by lightning is education. There are several ways to prepare for a thunderstorm: keep a watchful eye to the sky, listen to a National Oceanic and Atmospheric Administration weather radio or local radio or television for current forecasts, and watch for lightning flashes. You can tell how close you are to a lightning strike by counting the seconds between seeing the flash and hearing thunder. For every five seconds you count, the lighting is one mile away. If you can see a flash and instantly hear thunder, the lightning strike was very close.

The NWS recommends incorporating the 30/30 Rule into lightning safety plans. The 30/30 rule states you should seek shelter immediately if the time between the lightning flash and thunderclap is 30 seconds or less. And because most lightning strikes occur either very early or very late in a storm's life, you should wait at least 30 minutes after the last thunderclap before leaving your shelter.

The safest location during a thunderstorm is inside a large enclosed structure, preferably with electrical/telephone wiring and plumbing (to provide a safe pathway to the ground for any current). However, remember to stay away from doors, windows, metal fittings and devices connected to the electricity supply. In addition, an enclosed metal vehicle (such as a car, van or bus) is a safe location if an enclosed structure isn't available.

If you are out in the open and a building or vehicle isn't nearby, seek shelter under the smallest tree in a group of several large trees, but never under a single tree. Stay at least six feet away from the trunk to minimize the risk of a side strike. If you're caught in an open area without trees or other shelter, assume the lightning crouch: squat down on the balls of your

TEST YOUR LIGHTNING KNOWLEDGE WITH THIS SHORT QUIZ FROM WEATHER.COM:

- **Lightning always strikes the tallest object.**
  False. Lightning strikes the best conductor on the ground, not necessarily the tallest object. In some cases, the best conductor might be a human being.
- **A car's rubber tires give protection from lightning.**
  False. Actually, the car itself is very well insulated and offers more protection than being outside in the storm. Of course, the exception to this is a convertible, which provides virtually no protection.
- **Lightning never strikes the same place twice.**
  False. Tell that one to the Empire State Building, which is struck by lightning many times every year.

feet as a baseball catcher would (only make sure your heels are touching together) and place your hands over your ears. Wait out the storm in this position; never lie flat on the ground! Don't forget to remove all metallic objects from your person before assuming the lightning crouch position.

An individual ultimately must take responsibility for his or her own safety and should take appropriate action when threatened by lightning. Avoid unnecessary exposure to the lightning during thunderstorm activity and follow safety recommendations to reduce the overall number of lightning casualties. A weather radio and the use of lightning detection data in conjunction with an action plan are prudent components of a lightning warning policy, especially when larger groups and/or longer evacuation times are involved.

The seemingly random nature of thunderstorms cannot guarantee an individual absolute protection from lightning strikes. However, being aware of and following proven lightning safety guidelines can greatly reduce the risk of injury or death.

> "The **FIRST** step to **REDUCE THE RISK** of being **STRUCK** by lightning is **EDUCATION**."

DID YOU KNOW?

Every year, people are killed or seriously injured by severe thunderstorms despite advance warnings. The following information provided by the Red Cross, combined with timely thunderstorm watches and warnings about severe weather, may help save lives. During thunderstorms, always remember to:

- Listen to local news or a NOAA weather radio for emergency updates. Watch for signs of a storm such as darkening skies, lightning flashes or increasing wind.
- Postpone outdoor activities if thunderstorms are likely to occur. Many people struck by lightning are not in the area where rain is occurring.
- If a severe thunderstorm warning is issued, take shelter in a substantial building or in a vehicle with the windows closed. Get out of mobile homes that can blow over in high winds.
- If you can hear thunder, you are close enough to be in danger from lightning. If thunder roars, go indoors. The National Weather Service recommends staying inside for at least 30 minutes after the last thunderclap.
- Avoid electrical equipment and corded telephones. Use battery-powered TVs and radios instead.
- Shutter windows and close outside doors securely. Keep away from windows.
- Do not take a bath, shower or use plumbing.
- If you are driving, try to safely exit the roadway and park. Stay in the vehicle and turn on the emergency flashers until the heavy rain ends. Avoid touching metal or other surfaces that conduct electricity inside and outside the vehicle.
- If you are outside and cannot reach a safe building, avoid high ground; water; tall, isolated trees; and metal objects such as fences or bleachers. Picnic shelters, dugouts and sheds are not safe.
- For more information on how to prepare before a thunderstorm and what to do afterward, visit www.redcross.org.

Family engagement Kit

On the home front, a Soldier's "battle buddy" is often his or her Family. Check out the new Family Engagement Kit to learn how you can look out for the safety of your Soldier. The kit features a variety of tools, including videos, real-life stories, resources and tips to keep your Soldier safe.

https://safety.army.mil

U.S. ARMY ARMY STRONG. U.S. ARMY COMBAT READINESS/SAFETY CENTER ARMY SAFE IS ARMY STRONG

Mastering BROWNOUT LANDINGS

RETIRED CHIEF WARRANT OFFICER 5 DENNIS MCINTIRE
Fort Worth, Texas

Helicopters today conduct operations in environments and at tempos far different from what was envisioned nearly 30 years ago. Brownout was not an issue while patrolling the East German border. It has only been in recent years, with the operations in Iraq and Afghanistan, that this problem has become so pronounced. *(Note: The techniques discussed in this article may also be applied to whiteout landings.)*

Dust landings will challenge even the best of aviators. Not only can the pilot lose all visual ground references, the relative motion of swirling dust and debris can cause an extremely disorienting illusion of drift in the opposite direction of the dust movement. In the worst conditions, brownout is not a question of "if," but "when." The "if" is a given, while the "when" is a factor we still have some control over, depending on the approach technique used. That technique is the subject of this article.

It is important to understand that the dust generated during the landing phase does not cause a true brownout until the vortices cycle the lion's share of dust through the rotor system. With that said, if the pilot can be in a touchdown position before that point, their landing should be much safer. But to get to that point, the pilot must understand the direct correlation between the aircraft's angle of approach and the rate of descent as well as how it applies to the ground roll/run following touchdown.

It is best explained this way: At one extreme, we can use a shallow approach angle whereby our airspeed is higher (with a planned touchdown at or slightly above effective transitional lift), our rate of descent is very low and our ground roll/run is long. That approach is relatively easy to master but has its place only when landing to relatively flat, unobstructed areas. For illustrative purposes only, let us say that the other extreme is a

> **KNOWING THE SURFACE WIND** was always so important to me that in times where **TRUSTED INDICATORS** of surface wind **WERE ABSENT** (trees, dust, smoke, water ripples, etc.), I went through the effort of **GENERATING MY OWN WIND INDICATOR.**

90-degree vertical approach angle (straight down). This theoretical approach would have to use zero airspeed along with a very high rate of descent but would result in zero ground run. It would also be extremely difficult to perform, requiring a perfectly timed decelerating pitch-pull just prior to touchdown. (Again, this example illustrates one extreme end of the spectrum for argument sake only.)

Now let us discuss the point between these two extremes whereby the pilot should be able to execute a controlled dust landing with minimum ground roll/run to most any landing area. Over the years, as an instructor pilot/standardization IP, training others and executing thousands of dust (and whiteout) landings, I came to the conclusion that the steep side of a normal approach worked best when landing to the dustiest landing zones. While this type of approach does require a higher level of skill, with just a bit of training, any aviator can master it.

Approaches using the steeper approach angle do involve a higher rate of descent than that of a normal approach, but the rate of descent is still far from dramatic. In addition, while the brownout condition occurs with less warning using the steeper approach, it also reduces the opportunity for the dust to cycle through the rotor system prematurely. This substantially decreases the likelihood of a complete brownout before the landing is assured. Using this technique, the pilot should maintain the rate of descent until in a position to land and then apply a sufficient amount of collective to smoothly arrest the descent for a normal touchdown. This technique requires more critical timing, but the benefits become immediately apparent when landing to unimproved, dusty landing zones. The approach angle and properly timed collective application not only reduces the ground roll/run, it also allows the pilot to see the landing area for virtually the whole approach.

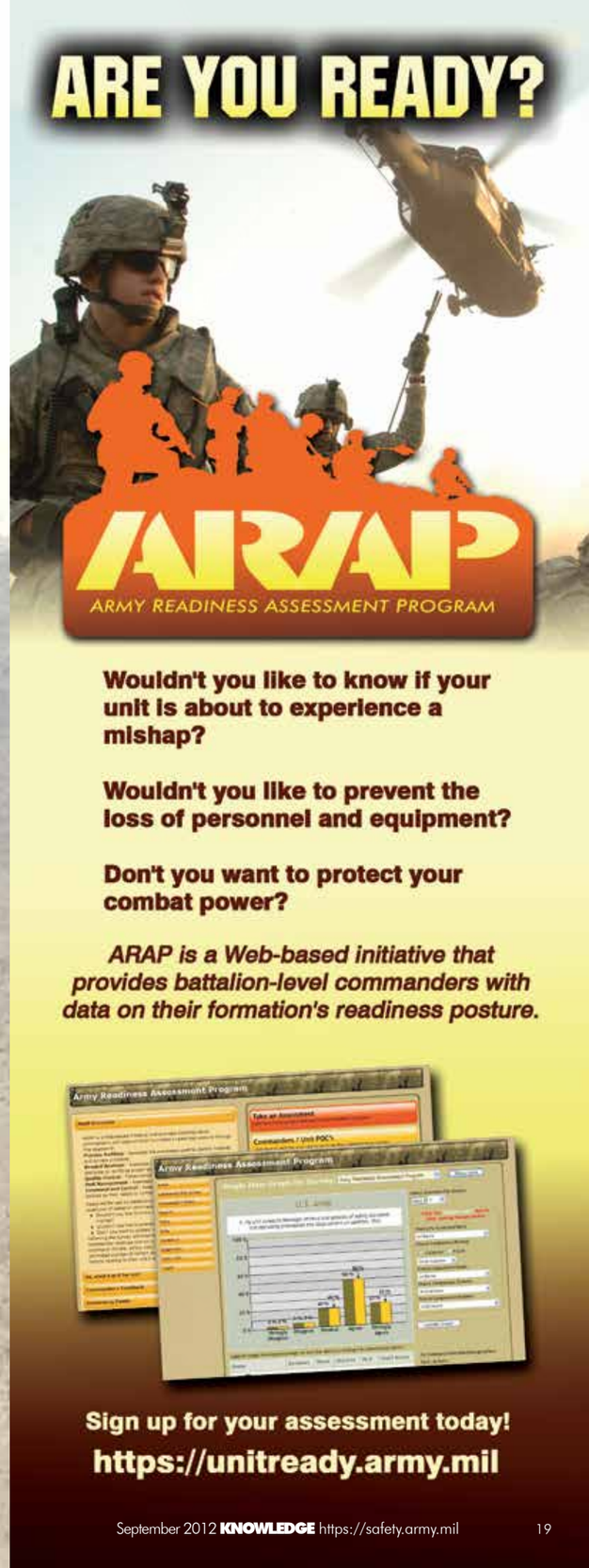
The confidence to perform a dust landing with this type approach comes only through repetition with the benefit of a more experienced pilot or IP on the other set of controls. Most of this training can take place in a non-dusty area to reduce wear and tear on the aircraft. The "final exam," however, must be in true brownout conditions. Only then can aviators know that their skills are up to the task.

Surprisingly, I have noticed many aviators ignoring the wind when determining their landing direction. Forgive me for stating the obvious, but this cannot be overemphasized: tailwind landings always result in higher ground speeds or, more importantly, earlier brownouts. And remember, the declaration, "Wind calm," does not always mean there is no wind. Just a few knots of wind can dramatically affect the results of the dust landing. This can be validated by experimenting with tailwind and headwind dust landings under reported light wind conditions. The resulting ground speeds necessary to avoid premature brownout during light tailwinds are eye-openers.

Knowing the surface wind was always so important to me that in times where trusted indicators of surface wind were absent (trees, dust, smoke, water ripples, etc.), I went through the effort of generating my own wind indicator. You can also do this by making a go-around in a dust area away from your planned LZ. By observing the path of the subsequent dust cloud, you can then accurately determine the wind direction for use in your approach decision.

Formation landings add a measure of risk due to the increased chance of collision during the landing or go-around phase. Collective training is essential to ensure that individual crews operate as one during their formation landings as well as knowing how to safely execute a go-around in the dust cloud. While the landing techniques for formation aircraft are the same as those for single-ship operations, the lead ship sets the tone for all aircraft in the formation as they mimic lead's approach angle, speed and touchdown braking. In addition, the formation should be stacked down so the trail aircraft touches down first. This eliminates the possibility of kicking up dust that could obscure the other chalk's landing points and allows all the aircraft ahead to land in relatively clean air. All other chalks then land in succession, with the lead aircraft touching down last.

As the old adage states, "Takeoffs are optional; landings are mandatory." Until the technologies come along that allow our aviators the visual references necessary to safely hover and land in brownout conditions, the application of proper approach and landing techniques is ultimately vital to the successful outcome of the mission. Fly safely!



On the Run

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As I stepped outside, I was surprised how cool it was for an early morning in May. The weather this time of year was usually very warm and muggy. For any runner, when it's muggy outside, breathing difficulty is one of the biggest challenges. On this particular morning, the skies were overcast and the temperature was perfect for a new route I'd chosen to run. A close friend told me about the route, which had very little traffic in the early mornings. With a good mixture of hills and flat surfaces, this was sure to be a great alternative to my old route.

> "LIKE VEHICLE OPERATORS, pedestrians must BE PREPARED for anything AT ANYTIME."

It was nearly 6 a.m. and the sun was peeking over the treetops. The only sounds were my sneakers pounding the pavement and birds chirping as they flew overhead. It was definitely a peaceful way to start the day. The secluded country road in south Alabama was exactly as described — very hilly and desolate. In fact, I was nearly 20 minutes into my run before I saw the first car.

The pavement was smooth and seemingly free of potholes, making it an ideal place for future runs. Then I approached a sharp left-hand curve located on a downhill slope. Should a vehicle appear, I feared the driver might not see me. I asked myself, "Should I cross over to the opposite lane or abide by the rules of the road and remain running against traffic?" Since I'd only seen one car up to this point, I decided to continue on my path and run against traffic. As I neared the curve, I knew the potential risk of not being detected was greater since I also couldn't see beyond it. Still, I thought it was best not to cross over and continued to run.

When I reached the curve, my fear of an oncoming vehicle was justified. Out of nowhere, a pickup truck came barreling around the corner. As I quickly moved off the road to prevent myself from being struck, the driver swerved into the opposite lane. Apparently, he was just as surprised to see me. Fortunately, an accident was prevented — but only because I was a defensive runner and prepared myself for a potential risk.

All too often, vehicle operators fail to plan for a pedestrian on the road. When one is spotted, the operator is usually startled. Unfortunately, many motorists are preoccupied with changing the station on the radio, singing along to their favorite song or talking or texting on a cellphone instead of doing what is expected of them — focusing on driving the vehicle.

Much like the operator of a vehicle, a pedestrian also has responsibilities. To be responsible behind the wheel, drivers must pay attention to their surroundings at all times, abide by traffic laws and limit distractions as much as possible. Like vehicle operators, pedestrians must be prepared for anything at anytime.

Here are some tips to help keep pedestrians safe whether walking or running:

Walking

- When crossing the street, use designated crosswalks.
- Establish eye contact when crossing the street. Never assume a motorist sees you.
- Walk on sidewalks or in designated walking areas. In the event sidewalks aren't available, walk facing oncoming traffic.
- Dress to be seen, especially if you are walking at night.
- Never drink alcohol and make the decision to walk home. While walking under the influence may seem safer than driving, you are still putting yourself and others in danger. Instead, call a taxi or a sober friend to take you home.

Running

- Be familiar with the route and be attentive to your surroundings at all times.
- Consider running only in designated areas for runners.
- Obey all laws for pedestrians.
- Do not use earphones or earbuds while running in areas not designated for runners/pedestrians.

Most importantly, always walk or run defensively. As a pedestrian, you may think you have the right-of-way, and many laws may support this notion. However, some motorists may not feel the same way.

JUST A STONE'S THROW

MAJ. JOHN DZIECIOLOWSKI
Operational Support Airlift Company
Army National Guard Bureau
Fort Belvoir, Va.

If it weren't for my helmet, I'd either be dead or a vegetable in the care of my family for the rest of my life.

The outside temperatures were still in the 30s when I cranked up my bike on my driveway. If I'd stopped long enough to think about it, I would have realized this was a time to take things very carefully on my bike or, maybe, opt for four-wheeled transportation. Not really considering the dangers, I rolled the throttle, let out the clutch and turned left into the street in front of my house. That's when the fun began.

My cold tires had barely hit the chilly street when my bike started to slide out on the low side (the bike's rear end slid to the right). There wasn't time to put my foot out, so I countersteered and gave it some gas. The bike stood straight up and then flipped over to the right (typically referred to as a "high side" by riders), slamming me into the pavement.

Although I was only going 5 mph, my bike tried to bury me six feet underground. I immediately got up with my "bell" rung, started the bike and rode it back to the garage to put it away. I called my wife and told her what happened. She had to shout at me to stop talking and told me I'd just repeated the same story three times. My new Scorpion helmet was destroyed, but at least my skull was still in one piece.

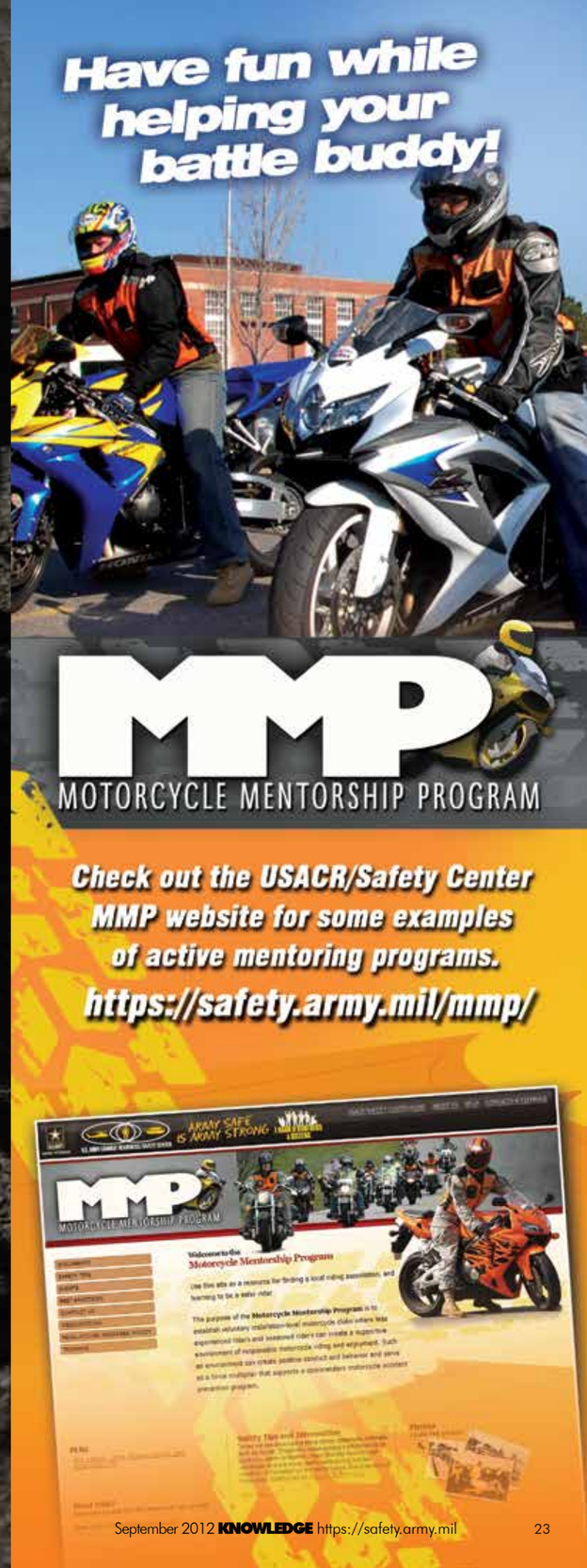
> "I'M A FIRM **BELIEVER** that if you're not **WEARING A HELMET**, you're an idiot and, **SOONER OR LATER**, you'll prove the **DARWIN PRINCIPLE**."

After telling my flight surgeon and emergency room doctor about my repetitive storytelling and listening to a couple of drunk-sounding messages I'd left my boss, they felt I should have a CT scan. The results showed I was good to go, suffering only a mild concussion and some soft-tissue damage to my neck, back, ribs, legs, shoulders and wrist.

That morning I proved to myself that helmets work. Were it not for mine, my brain would have been splattered all over Hillside Road just a stone's throw from my home.

I'm a firm believer that if you're not wearing a helmet, you're an idiot and, sooner or later, you'll prove the Darwin principle. If you're not smart enough to wear a helmet, then I can only guess that you don't need or want to live.

Be smart when you get on your bike and wear your helmet. It's your best guarantee of living to ride another day.



Don't Let FROST BITE Your Equipment

CHIEF WARRANT OFFICER 4 MARC ASSUMPCAO
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Fort Rucker, Ala.

During the winter, driving becomes more hazardous, and extreme weather can take its toll on our vehicles and drivers. Taking appropriate steps such as conducting by-the-book preventive maintenance checks and services and applying risk management before hitting the road could save you from breakdowns and potentially dangerous situations.

Climate changes not only affect us, but also have an impact on our Army vehicles and equipment. Reliable transportation is vital to keeping Soldiers safe and accomplishing missions. Soldiers and leaders must realize highways and roads can quickly become slick and treacherous during winter.

As road conditions deteriorate, drivers shouldn't overreact with quick starts, turns and stops. When starting, drivers should accelerate slowly while keeping the front wheels pointed straight ahead. They should also keep their speed down and increase following distances behind other vehicles. A four-second gap or more is a good interval on a slippery road. Applying brakes with steady pressure may prevent locked wheels and skids. If the vehicle begins to skid, drivers should lightly turn into the skid and ease the foot off the gas pedal until they regain control.

Another important factor to consider before entering the winter season is vehicle preparation. Vehicle operators need to keep assigned equipment in proper running condition throughout the colder months. Vehicles should be winterized around September or early October — before cold weather sets in. During the winter, not only should vehicles be kept fully mission-capable, they also need to be winterized in an effort to avoid inconvenient or dangerous situations while traveling in inclement weather. The last thing a driver needs is a vehicle that breaks down in harsh winter weather. No one should expect vehicles to operate properly without proper PMCS.

As nearly any driver can attest, the cold months can be quite hard on Army vehicles. Not only does an engine require special attention to get it purring in freezing temperatures, the exterior and other components can take a beating as well.

Although Army vehicles are designed to operate well in all temperatures, take the following measures before the winter weather arrives:

Perform PMCS. Conduct the before, during and after checks as prescribed by the vehicle's technical manual. Ensure scheduled maintenance is performed in accordance with the vehicle service intervals.

Check engine coolant. Make sure the recommended coolant has the proper mix of antifreeze and water. A coolant system is not only designed to keep the engine from overheating or freezing, it's also responsible for protecting it against corrosion.

Check oil. Refer to the equipment TM for the vehicle-specific oil level and viscosity. When the outside temperature changes, it will influence the internal engine temperature, so make sure to use the proper oil for the conditions.

Check battery. Have the battery checked by maintenance personnel. Also, during PMCS, ensure the battery connections are free from corrosion. A vehicle battery can die without notice. During extreme winter temperatures, a battery's life may be reduced by 30 percent.

Check lights, defroster and heater. Ensure all components are fully operational.

Check tire tread depth. Ensure the depth is within the measurement prescribed by the TM and tires are serviceable to avoid hydroplaning or loss of control.

DID YOU KNOW?

Through proper understanding of winter driving and vehicle operations, the Army will achieve the standard of accident reductions in our formations. With volumes of information and resources accessible in the Driver's Training Toolbox, every Soldier in the Army has the tools readily available to drive and complete the mission safely. Visit the Driver's Training Toolbox at https://safety.army.mil/drivertrainingtoolbox for more information (AKO login required).

Check the tire pressure. Make sure to inflate tires with the proper PSI listed in the TM. Tire pressure is especially important during the winter, as a properly inflated tire will help guarantee better traction in wet, snowy conditions.

Check brakes. Ensure the brake lines and hoses are serviceable and brake fluid is at the proper level.

Check windshield wiper blades and fluid. Check the condition of windshield wiper blades and replace worn blades before driving. Also, check and fill the wiper fluid reservoir. Limited visibility while driving during winter months can be frustrating. Precipitation and salt buildup on the windshield can wreak havoc while driving in winter weather.

Check basic issue items. Ensure the BII inventory is complete and all items are in the vehicle during operations. Components of BII are designed to aid personnel during emergencies.

Inspect tire chains. Ensure they are serviceable and crews are trained on how to properly install them.

Carry an emergency kit. Additional items such as gloves, ice scraper, windshield washer fluid, jumper cables, first-aid kit, snow shovel and flashlight will assist during emergency situations.

Don't be overconfident. Whether the vehicle is a four- or two-wheel drive, both will slip on ice, so drivers must be extra careful.

Check road conditions. Know the difference between conditions. Vehicle operations may start out as GREEN or AMBER, but could change to RED or BLACK during your mission.

Along with these tips, it's imperative drivers heed the "warning" and "caution" statements listed in the vehicle's TM. Prior planning, winterizing vehicles and applying good habits are all key components of safe driving habits. If you're a driver or maintainer, don't let frost bite your equipment!

ARMY COLOR CODES FOR ROAD CONDITIONS

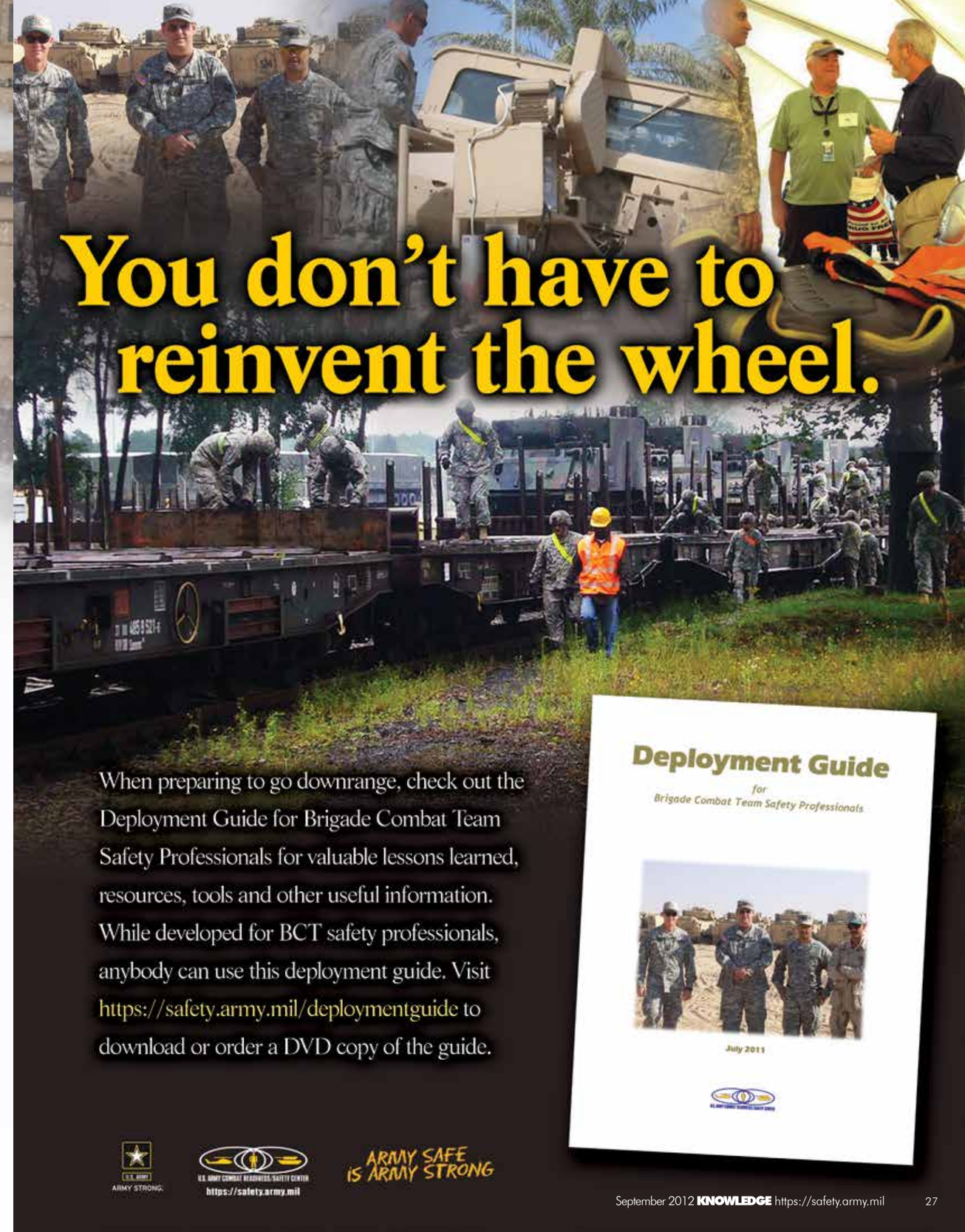
GREEN: Normal driving conditions exist on post. Roads are clear and dry.

AMBER: Cautionary driving conditions exist on post. Roads are very wet or have ice or snow sticking to overpasses, bridges or intersections.

RED: Hazardous driving conditions exist on post. Ice or snow is sticking to most road surfaces. Heavy precipitation and/or high winds may limit visibility. Government vehicles should only be used for mission-critical operations through coordination with DOL.

BLACK: Extremely hazardous conditions exist with life-threatening driving conditions. All roads are covered with ice or deep, unplowed snow. Heavy snowfall and/or high winds causing low visibility is occurring. Only police, fire, medical and DPW equipment may be dispatched. TMP buses may be dispatched to pick up Soldiers in the field who are exposed to extreme cold that could impact life, health and safety. All other government vehicles will be restricted from movement unless authorized by DOL (mission critical). DPW workers will be allowed to enter the installation and conduct maintenance missions.

Editor's note: The criteria for road conditions vary by installation. Be sure to check with your installation safety office for local road condition color codes.



POSITIONED FOR LIFE

STAFF SGT. JOHN M. DUPREE
B Company, 209th Aviation Support Battalion
Kandahar, Afghanistan

Editor's note: In recent years, a number of Soldiers have been killed when they stopped to render assistance at accident scenes and were struck by passing motorists. It is important good Samaritans protect themselves in these potentially dangerous situations.

I was in Germany, traveling on Highway 45 from Frankfort to Miltenburg, when two speeding cars collided in front of me. From the impact, I was sure the occupants in at least one of the cars were going to be badly injured. The wrecked cars ended up on the backside of a curve, where they blocked most of the road. I stopped and got out to check the passengers in both vehicles. Amazingly, they were all OK. Then I heard another driver who'd stopped to help yell, "Watch out!" as a car went flying through the crash site, barely missing me and one of the crashed cars.

At that point, I decided someone needed to take charge of the scene. I started by placing two people in the curve, one 150 meters ahead of the curve and the other in the middle of the curve to slow down traffic. That way we could safely help the accident victims until the police and emergency services personnel arrived to take over the scene. I also put out warning triangles on the road. Having those in your vehicle is a requirement in Germany.

It had been a while since I'd called emergency services, so I asked a local national driver to call in the accident. Perhaps there'd been a misunderstanding because of the language barrier. He reported the accident again and gave clear directions to the accident location. I then returned to try to comfort the passengers so they wouldn't go into shock. I didn't want to move them or let them drink anything because it might harm them.

About 15 minutes later, the emergency services crews showed up. It was another 20 minutes before the police finally arrived and took charge of the accident scene. They asked me to hang around and provide information on what happened. The following Monday, I met with an investigator to recap the events of the accident. The police captain said it was very clever to place the two people in the curve to avoid additional accidents. He explained position was everything because drivers approaching through the curve couldn't see the accident in time to avoid it. After the interview, he thanked me several times for helping at the accident scene and asked me to come back that evening.

When I got off work, I went back to the police station. When I got there, I was met at the front door by the police chief. He then took me into his office and gave me a badge from the local police station and a T-shirt. Several members of the police staff also took me out to dinner. I was very grateful for the appreciation they and the police chief showed me. In my heart, I really felt it was my civic duty to do the things I did.

HELP – BUT DON'T GET HURT

Sometimes, Soldiers who stop to render assistance at accident sites wind up being victims of other drivers. From October 2009 through May 2012, three Soldiers were killed and another was injured when they were struck by other vehicles after stopping to help at an accident scene.

In Germany, where this accident happened, drivers are required to have warning triangles that they can place on the highway to alert approaching drivers. However, Soldiers don't have to be in Germany to take advantage of the protection these triangles can provide. Commercial warning triangles are available at many auto parts stores in the United States.

Risk Vs. Reward

CHIEF WARRANT OFFICER 2 ZACH MUNAR
C Troop, 6th Squadron, 6th Cavalry Regiment
Fort Drum, N.Y.

Editor's note: Effective communication and interaction between crewmembers was vital in the success of this mission. Every crewmember in each aircraft had a critical role to fulfill. It doesn't matter if a mission is in combat or training; a flight crew must always communicate with each other. Pre-mission and in-flight planning during multiship operations is now the standard in combat, and leaders must get involved in the planning and execution of all missions.

My Scout Weapons Team was in Afghanistan supporting a convoy delivering supplies from north of Asadabad to Forward Operating Base Bostick in the Konar River valley. We'd finished refueling in Asadabad and were en route back to the convoy, which was about halfway to FOB Bostick, when Mad Dog 16 called for immediate air support for troops in contact. Mad Dog 16 was a security element posted along a road that was a known enemy hot spot. Their location was on the west side of the Konar River, which runs down the middle of the valley.

After conducting our fighter check, Mad Dog 16 reported they were in a two-way firefight. The enemy was using machine-gun fire from the rocks at the bottom of the hill on the east side of the river. Mad Dog's convoy consisted of four Mine Resistant Ambush Protected vehicles, and all friendly elements were secure inside the vehicles. We immediately confirmed the convoy's location and asked Mad Dog to mark the enemy location with a single .50-caliber tracer round because each vehicle gunner was firing at a different location on the hill. He responded, "Target marked with a 20-round burst."

I was in the lead aircraft and identified the target. The air mission commander in the rear aircraft cleared a suppression mission on the enemy location. As lead, we rolled in for our first inbound run and engaged the enemy at about 1,500 meters and fired two high-explosive rockets and about 150 rounds of .50-caliber ammunition. We broke left off the engagement at about 800 meters, placing my trail aircraft in perfect position to fire just as we broke. As we broke left, Mad Dog told us the enemy fire had shifted from his position and he thought the fire had directed toward the aircraft. Seconds later, our trail ship called, "Taking fire … taking fire!"

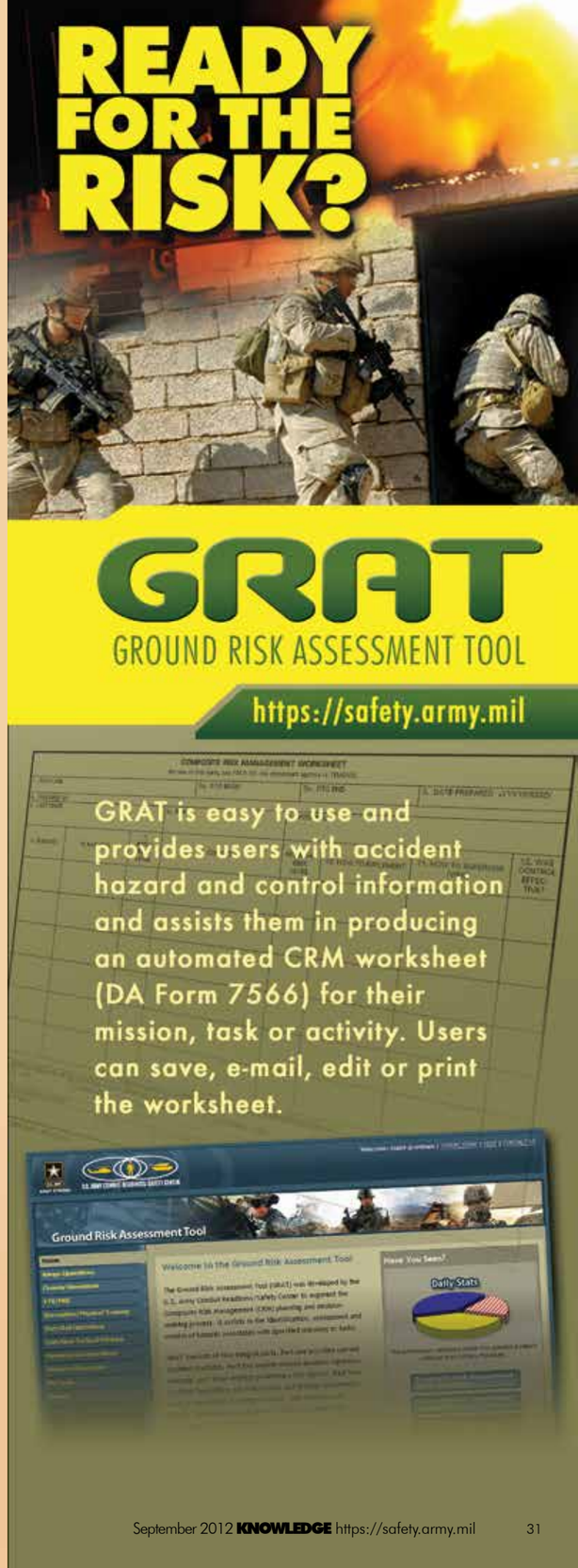
Coming around, we barely picked him up as he broke. We called inbound to cover his break and fired our last five rockets at the enemy as fast as we could. As my right-seater switched to fire .50-caliber rounds, two incoming tracers flew by the right door, missing us by 10 feet. I then saw three tracers strafe left to right about five feet above the left side of our rotor disk. I yelled, "Taking fire! Taking fire!" and my right-seater broke immediately. I got on the radio and told trail we had just taken fire, but we had not been hit and were pushing off the target. I knew we had gotten too close trying to cover trail as he was taking fire. I estimated we were only 400 meters from the target when I observed the tracer fire.

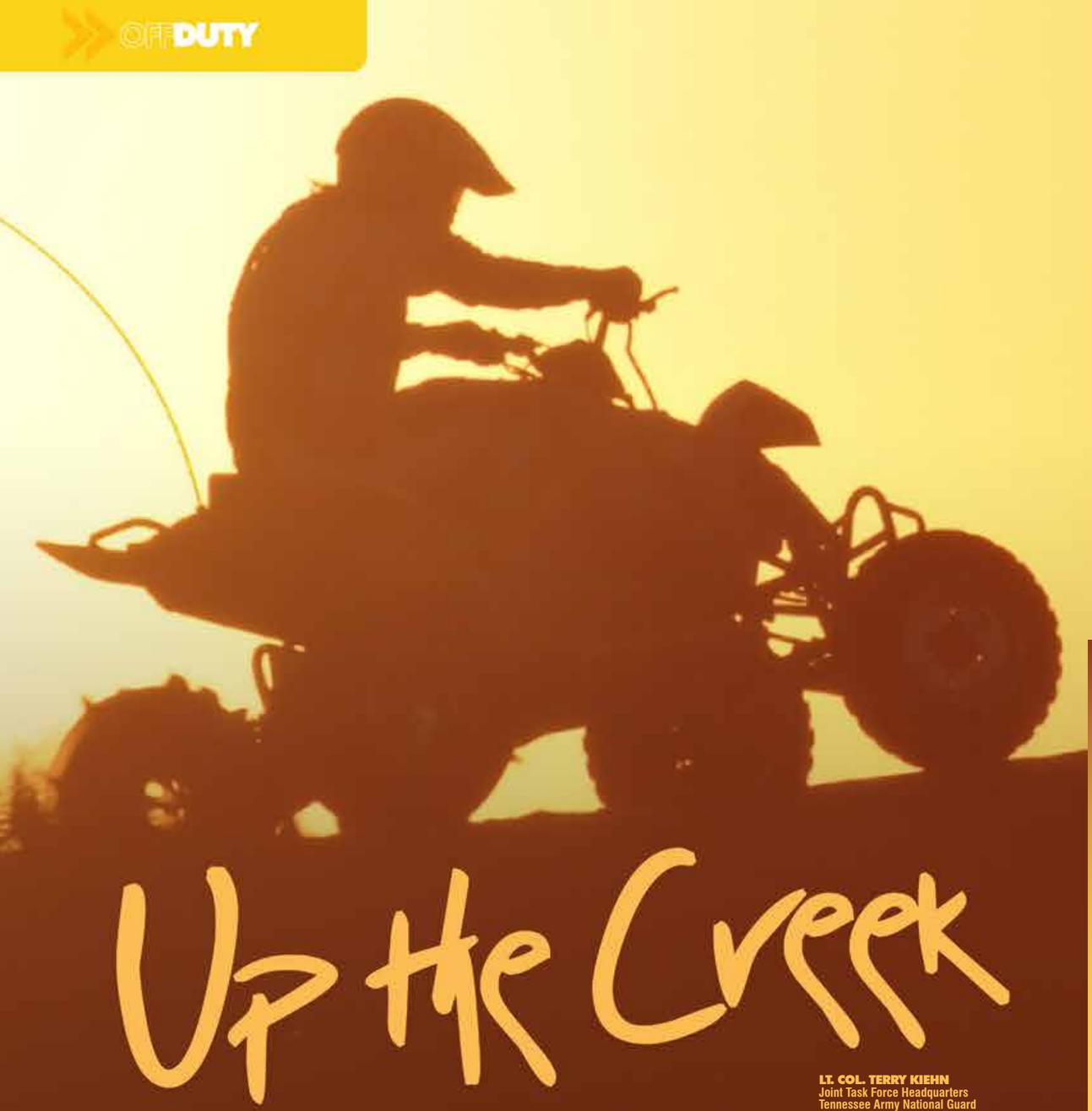
We were then flying trail behind our air mission commander, so we executed a lead change. Back as lead, we set up for another engagement. This time, before turning inbound, we made sure to brief the distance we would break to remain outside the enemy's range. We knew we were running low on ammunition and had about one engagement left. Mad Dog 16 reported he was still taking fire from the same location, but the volume of fire was significantly less. I told him we had only enough ammunition for one more engagement and he requested we go "Winchester" before going to the FARP. We set up for our final engagement and briefed that we would engage at 1,800 meters and break at 1,000 meters. Both lead and trail conducted the engagement without observing fire from the enemy. Mad Dog 16 reported all enemy fire had stopped. We then broke station for refuel at Asadabad.

While at the FARP, we looked for battle damage and, thankfully, found none. After refueling and rearming, we departed north to check on Mad Dog again. He reported he had not taken any more fire since we left. We continued the mission with the convoy to the north and then departed.

Lessons Learned

No matter what situation you find yourself in, you must always conduct an analysis of risk verses reward. Mad Dog 16 was in danger, but did we put the aircraft in more danger than necessary? What was the convoy's risk level when under fire from 800 meters with all its troops mounted in their MRAPs? These type questions must be addressed before you choose a specific course of action. Preferably, you have already discussed possible situations like this and others in pilot, mission and team briefs before you pull pitch. Risk and reward analysis should be a deliberate current mission focus of every brief. Granted, every situation is different and may present new risks, but I believe a foundation in risk analysis will enable the individual to make better on-the-spot decisions.





Up the Creek

LT. COL. TERRY KIEHN
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Tennessee Army National Guard
Nashville, Tenn.

It was a Saturday afternoon and the weather was wonderful. The sun was shining and the temperature hovered at 65 F. I'd finished mowing my yard and put up my tractor and push mower when I decided to ride my four-wheeler in the creek behind my house.

Normally, I ride down my property line to an area where it's easy to enter the creek bed. This afternoon, however, I decided to enter the creek where it ran behind my house. The banks were steeper, which made getting into the creek a bit more challenging. However, that wasn't a real issue for me. I never ride fast because I like to take in the natural beauty of the day.

Despite the heavy rains changing the creek's course several times each year, it's always an easy ride. On this day, I came upon some downed trees and the only way around them was to go up the bank and turn sharply to the left to go back down into the creek bed. As I made the left turn, I saw a washout just as my left-front tire went into it. The rest seemed to happen in slow motion as my left-front tire slipped and my four-wheeler and I began rolling. I looked at the water and thought, "This can't be good." I hit the water, and the Yamaha — all 600 pounds of it — rolled on top of me. The water was cold, but I didn't notice it at that moment.

The four-wheeler pinned me under the water. All I could think about was pushing this thing off me and getting some air. I grabbed everything I could, trying to move the Yamaha. I grabbed the exhaust and felt my fingers burning — but I didn't care — I just wanted to get free of the four-wheeler. Finally, I rolled it off me and it landed upright in the creek.

Although the water was only 2½ feet deep, with the four-wheeler on top of me it seemed like it was much deeper. As I sat on the bank regaining my composure, I thought about how badly this could have gone.

GEAR UP!

While you can't avoid every bump or bruise that might come your way when riding an all-terrain vehicle, you can minimize them by properly gearing up before the ride. The ATV Safety Institute recommends wearing the following:

- **Helmet:** Department of Transportation compliant and preferably a full-face design. Protects against injury and discomfort from windblast, cold, noise and flying objects. The most important piece of protective gear you can wear.
- **Eye Protection:** Motorcycle goggles worn outside the helmet. Protects against injury from flying debris and reduces dust, which irritates your eyes and impairs vision.
- **Riding Jersey:** Can be cotton or synthetic. Some synthetic materials wick away perspiration to keep you cool. Some include light elbow pads. Jerseys help protect you from cuts and scrapes along with exposure to sunburn, windburn, dehydration and hypothermia. Brightly colored jerseys make you easier to see on the trail.
- **Elbow Guards:** Slip-on elbow guards may be worn over or under riding jerseys to provide extra protection.
- **Gloves:** Specially designed off-road motorcycle or ATV gloves protect your hands from flying debris and trailside hazards such as branches and bushes. They also provide a more secure grip on the handlebars and protection in case of a fall.
- **Riding Pants, Hip Pads and Knee Pads:** Special pants made of leather, denim or synthetic materials. Hip and kneepads may be built-in or available separately.
- **Riding Boots:** Special motocross boots made of thick leather with steel reinforcements. Get one size larger to accommodate thick socks to cushion and wick away moisture. MX boots are the best protection against foot and ankle injuries.

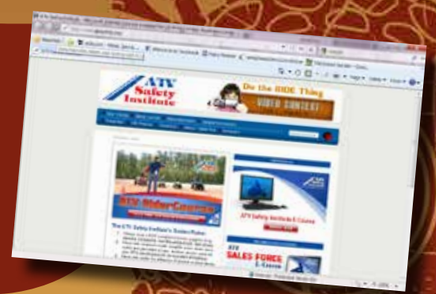
I checked myself for broken bones and bleeding. My back hurt from where I scraped it, and my ankle throbbed from where the four-wheeler had rolled over it. I was relieved to find I wasn't bleeding and concluded I'd been very lucky. I thanked the Lord I was OK.

My cellphone was wet and wouldn't work. I'd been riding by myself and realized it might be evening or late that night before anyone would look for me. I realized how stupid I'd been to go four-wheeling alone without the proper personal protective equipment or telling anyone where I was going and when I would return.

Things can happen in a split second that can leave you with a lifetime of consequences. This was a close call for me — one that will change the way I think about riding my four-wheeler in the future. I never ride my motorcycle without wearing my PPE, and I should do the same when I'm on my ATV. I will also make sure someone knows where I am just in case I'm "late" for supper. Believe me, you'll never find me up the creek again without PPE and a plan!

GOT SKILLS?

Are you new to riding ATVs or do you realize you need a few more safety tools for your kit bag? If so, help is just a click away. Check out the ATV Safety Institute at http://www.atvsafety.org/.



> "I **REALIZED** how **STUPID** I'd been to go four-wheeling **ALONE** without the proper personal **PROTECTIVE** equipment or telling **ANYONE** where I was **GOING** and when I would **RETURN**."

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NOTHING PROTECTS *like a* DEERE

CHIEF WARRANT OFFICER 2 MATTHEW P. GERLITZKI
3rd Battalion, 2nd Combat Aviation Brigade,
General Support Aviation Battalion
Camp Humphreys, Korea

I didn't fully understand how valuable crew coordination was until one horrible night in Afghanistan. Crew coordination is sometimes one of those intangible skills we take for granted or don't believe is important until our lives are on the line. I can attest to its significance from flying a typical formidable combat mission supporting a task force in one of the most kinetic valleys in eastern Afghanistan. There are not enough words to explain how terrible this experience was — not just for me, but also for the crew, Soldiers and civilians onboard.

This particular forward operating base was tucked away against the far end of the valley floor, positioned in a way offering only one reasonable approach and departure path for a fully loaded CH-47. Considering the surrounding terrain and civilian population, one could only hope for the best outcome for any given mission.

My buddy, Chief Warrant Officer 2 Brown, and I decided to fly higher than usual on the en route portion of the flight to mitigate the risk of a known Taliban person-of-interest site armed with a DShK 12.7 mm (.50 caliber) machine gun and rocket-propelled grenades. This required us to conduct a circling-type approach to the FOB to lose sufficient altitude and land. On short final, I felt and observed the nose pitch down as an RPG impacted the bottom of the aircraft.

The tail crew chief immediately announced that the onboard John Deere utility vehicle, also known as a Gator, had exploded and was on fire. The flight engineer, without hesitation, instructed the pilots to land immediately. Simultaneously, I initiated an emergency descent while Brown made the last radio transmission by contacting Joker, our Apache escort, about the emergency. Upon landing, I looked out the left window and witnessed the rotor blades striking the rising terrain, whereby I instructed all crewmembers and passengers to exit the main cabin door. After Brown and I conducted an emergency engine shutdown and zeroed the avionics, we quickly egressed and met everyone for a head count and injury assessment. Fortunately, all personnel were accounted for with only a couple of minor shrapnel injuries.

After a brief moment, we made it inside the FOB by climbing in a narrow window while Joker eliminated the threat. Brown updated the local commander while I coordinated with the quick-reaction force and rescue assets via secure radio.

This is just a short description of the events that happened on that dreadful night. I personally believe the only reason anyone survived this incident was due to the placement of the Gator in the cabin of the aircraft and skillful application of crew coordination. The RPG had pierced the skin of the aircraft and exploded when it struck the underside of the Gator. Hence, the Gator absorbed the explosive force of the RPG rather than severing the driveshaft and/or damaging the rotor blades. The latter would have resulted in a catastrophic loss.

Crew coordination was paramount for the survival of everyone on board. Additionally, I can't stress the importance of evaluating crew mix for every mission, as well as implementing a thorough and complete risk management assessment.

CREW COORDINATION ELEMENTS

1. **Communicate positively.** Good cockpit teamwork requires positive communication among crewmembers. Communication is positive when the sender directs, announces, requests or offers information; the receiver acknowledges the information; and the sender confirms the information, based on the receiver's acknowledgment or action. The receiver must anticipate what the sender says or wants and listen carefully. Either crewmember must have no doubt what is said or meant before taking action.
2. **Direct assistance.** A crewmember will direct assistance when he cannot maintain aircraft control, position or clearance. He will also direct assistance when he cannot properly operate or troubleshoot aircraft systems without help from the other crewmembers.
3. **Announce actions.** To ensure effective and well-coordinated actions in the aircraft, all crewmembers must be aware of the expected movements and unexpected individual actions. Each crewmember will announce any actions that affect the actions of the other crewmembers.
4. **Offer assistance.** A crewmember will provide the requested assistance or information. He will also offer assistance when he sees another crewmember needs help.
5. **Acknowledge actions.** Communications in the aircraft must include feedback to ensure crewmembers correctly understand announcements or directives.
6. **Be explicit.** Crewmembers should use clear terms and phrases and positively acknowledge critical information. They must avoid using terms that have multiple meanings such as "Right," "Back up" or "I have it." Crewmembers must also avoid using indefinite modifiers such as, "Do you see that tree?" or "You are coming in a little fast."
7. **Provide aircraft control and obstacle advisories.** Although the pilot is responsible for aircraft control, the other crewmembers may need to provide aircraft control information regarding airspeed, altitude or obstacle avoidance.
8. **Coordinate action sequence and timing.** Proper sequencing and timing ensures the crewmembers coordinate their actions.

The Trail LESS TRAVELED

CHAD GARDNER
Joint Munitions Command
Rock Island Arsenal, Ill.

For people who enjoy the outdoors, hiking is a great way to get out into nature. I've been an avid hiker for more than 12 years. In the woods, a person can walk for miles and hear nothing but the sounds of the wind, birds and animals scurrying around. Weather plays a big factor in how a hiking trip will go; a great, warm, sunny day is optimum hiking weather. The problem with weather conditions is they are, at times, unpredictable. Most hikers think ahead and prepare for any type of weather. This story involves a good hike gone south and the struggle to make it up a mountain and back to civilization.

It was a cool, cloudy day in the fall of 2008, and I was tired of the hustle and stress of college. Needing a break from my studies, I decided to visit a well-known hiking spot nestled deep in the Boston Mountains of northern Arkansas. The trail started at the top of a mountain and ran for 10 miles down and around the Buffalo River and back up the mountain. The weather forecast called for cooler temperatures and a chance of snow, so I figured starting early would be my best bet.

About five miles into my trek, I decided to stop and eat lunch by a river. I thought about how perfectly the trip was going. That's when I noticed dark clouds rolling in and the temperature starting to drop. I knew I needed to head back. I never imagined it would be such a challenge.

The problem with this hiking trail and the mountains was the angle of them. The Boston Mountains in this area are a set of cliffs that span more than 50 feet. Staying on the trail the entire time, I got to the first set of cliffs as the snow began to fall. By the second set, I was crawling on the ground. I got up and over the cliff and started up the main hiking trail when I suddenly slipped. The next few moments were a blur, but I remember falling and sliding down about 30 feet to the base of the cliff. Any higher and I knew I would've slid right off the face of the cliff.

It had taken me two hours to get down the mountain; but on the way back up, it took twice as long. I eventually reached what I thought was the end of the trail, only to find it led to another trail. I was getting concerned about getting back to my car. I knew I had to get out

DID YOU KNOW?

The National Park Service has many hiking trails scattered across the United States. Whether you're a beginner or an experienced hiker, here are some tips from the NPS that may make a difference in your next hiking adventure:

- **Let a responsible person know your route and return time.**
- **Always hike with another person. Keep your hiking party together and stay on officially maintained trails. Keep children in your sight when hiking — do not allow them to get ahead of you or fall behind.**
- **Carry a current park trail map and know how to read it.**
- **Carry two small flashlights or headlamps — even on a day hike. If you have trouble on the trail, darkness may fall before you can finish your hike.**
- **Take adequate water — a minimum of two quarts per person per day. All water obtained from the backcountry should be treated either by filtering or boiling.**
- **Carry a small first aid kit.**
- **Check the current weather forecast and be prepared for quickly changing conditions.**
- **Wear shoes or boots that provide good ankle support.**
- **Avoid hypothermia (the dangerous lowering of body temperature) by keeping dry. Avoid cotton clothing. Dress in layers that can be easily removed or added as you heat up or cool down. Carry a wind-resistant jacket and rain gear — even on sunny days!**
- **Don't attempt to cross rain-swollen streams; they will recede rapidly after precipitation stops and the wait may save your life! When crossing any stream more than ankle-deep, unbuckle the waist strap of your pack, wear shoes and use a staff to steady yourself.**

To learn more, visit the National Park Service's website at www.nps.gov.

> "... always **PREPARE** for the **WORST**, even if you **THINK** there **ISN'T** a **CHANCE** in the world something **COULD** go **WRONG.**"

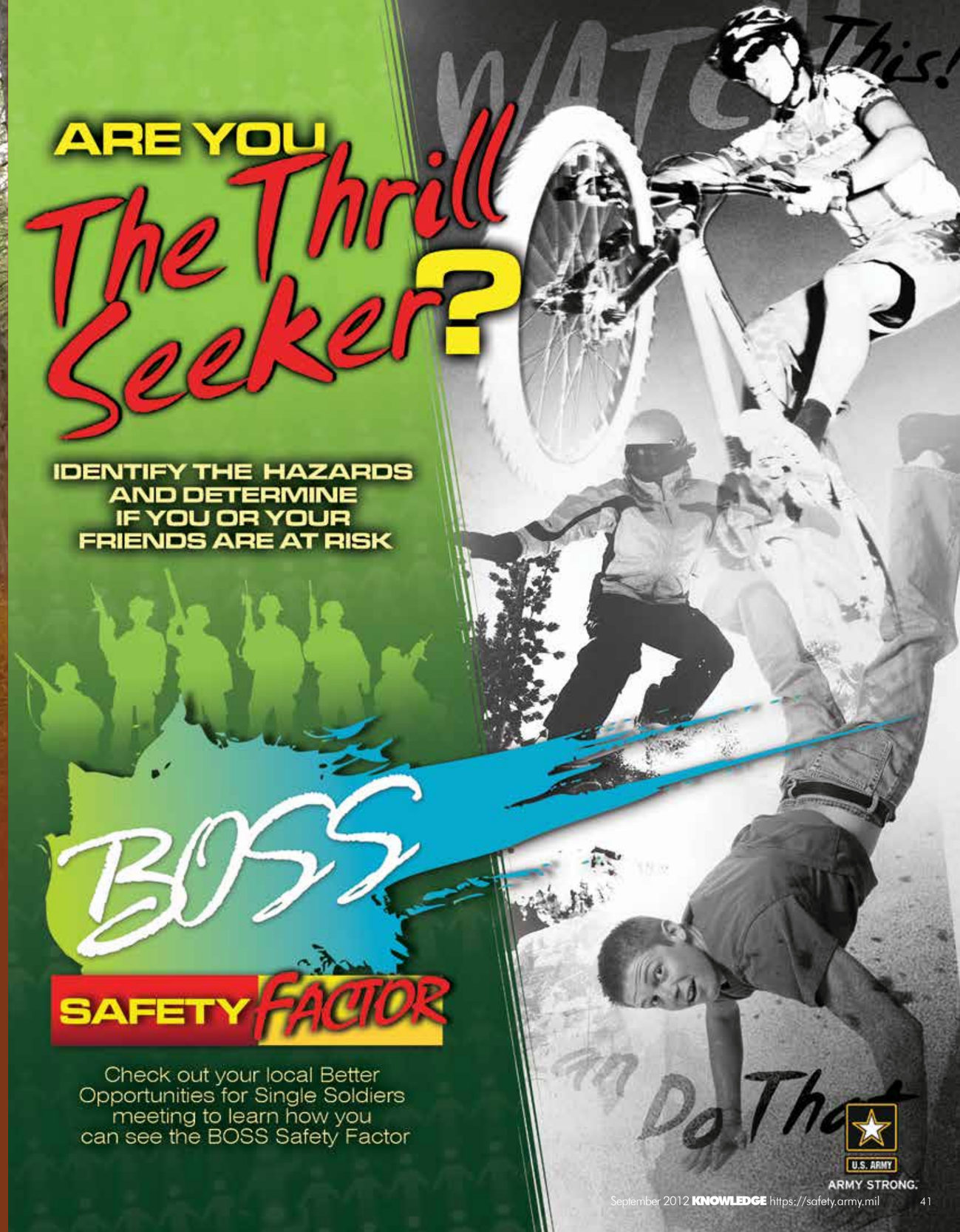
of the forest and back where I could get some heat. My nose and feet were wet with snow and I couldn't feel my hands. I was wearing dress gloves, not the thick, insulated type I should've been wearing.

Over the course of the next hour, I staggered alone on the mountain. Snow was piling up around me and I figured I would eventually just keel over and die. Finally, I reached a familiar forked tree and leaned against it. I knew where I was, but as I looked up, I noticed something large moving around the head of the trail. It looked like a dog, but as it moved closer, I realized a black bear now stood between my car and me!

My heart raced as I deliberated on how to get around the bear. Most bears can be scared off if you act aggressive and yell at them, so I began walking confidently toward the giant beast. I knew that if it saw me, I would have to wave my arms and yell loudly. Then, out of nowhere, an ear-splitting "BANG!" echoed throughout the mountain.

I immediately hit the dirt. Who fired the shot and where were they shooting? As I looked up, a forest ranger walked toward me as the bear barreled away into the woods. The ranger put me in his truck and took me back to his office to "talk." As I warmed up, he drilled me for an hour about the dangers of hiking alone. He covered a myriad of hiking safety topics, including preparing for camping and hiking, the importance of planning a trip, checking the weather ahead of time and maintaining energy with small breaks and snacks. He also told me that no matter how experienced someone is with outdoor activities, safety should always be the main priority.

I hope others can learn from my mistakes. First, never hike alone; always have someone with you who can go get help if something happens. Next, always prepare for the worst, even if you think there isn't a chance in the world something could go wrong. Make sure that when you hike, you carry two sets of weather gear so you're ready for rapidly changing conditions. Also bring along a first aid kit, rope and a small party horn or ballgame horn. A loud noise is more effective in running off dangerous animals than yelling and running at them. Finally, always leave markers on trees so you'll know how to get back. It's OK to hike the trail less traveled, just as long as you do so safely!



T-BONED BUT ALIVE

DANA M. HENRY
Carl R. Darnall Army Medical Center
Fort Hood, Texas

It was a cloudy day in September and my husband decided to run some errands. We'd only been married for a couple of days and were planning a permanent change of station move to Germany in the upcoming weeks. He jumped into his new Saturn, put on his seat belt, adjusted the mirrors and headed out to pick up my mother to take her to the grocery store. He was also excited as he left because we were planning to go out for lunch.

It was just starting to drizzle when he pulled out of the parking lot of our apartment building and headed up the street. When he got to the stoplight-controlled intersection four blocks down the street, the traffic light was green. As he entered the intersection, a police car going 60 mph slammed into his Saturn's passenger side. The impact sent his car out of control, and it hit a car on the other side of the street before coming to a rest in a front yard. When it did, two tires were completely ripped off their rims and the passenger-side door was nearly touching my husband's right arm. Fortunately, he was able to unbuckle his seat belt and jump out.

As it turned out, the police officer had received a dispatch alerting him to a grocery store robbery. The store was only a couple of blocks from his location, so he responded, speeding to get to the scene as quickly as possible. Unfortunately, he didn't turn on his lights and sirens as he ran the red light.

My husband went to check on the officer. He was sitting behind the steering wheel, clearly dazed but OK. My husband was still in shock at what happened and how his day had been so dramatically changed. The officer was also still in shock, unable to focus on anything else around him.

When the emergency services and police arrived at the scene, the paramedics rushed to the mangled Saturn, thinking they'd be administering life-saving procedures to whoever was inside. They were surprised when my husband yelled, "I'm over here! There's no one else in the car, but it's smoking and you need to get away from the wreckage." My husband said the paramedic looked at him and said, "You must have been wearing your seat belt."

> "Because **HE** was **WEARING** his **SEAT BELT**, he **WALKED** away **FROM** the **CRASH** with **ONLY** some minor **BRUISES** where the air **BAG** deployed."

Because he was wearing his seat belt, he walked away from the crash with only some minor bruises where the air bag deployed. The police officer was also wearing his seat belt. He and my husband were both taken to a local hospital and later released with minor injuries. Had my husband not been buckled up, our honeymoon could've ended before it really began. Had the officer not been buckled up, his police chase could've ended with a funeral — his own. Something as simple as wearing seat belts made all the difference that day.

So what's it worth to you and those who love you to take a few seconds to buckle up? If you're not already doing it, try it. Give yourself a chance to live and find out.

One Mistake

And Your Whole Life Can Change

Pvt. Karen Risser's life changed forever the morning of Sept. 29, 2008, when she lost control of her car on the way to drill. Even though the vehicle was totaled, she may have emerged from the accident unscathed. Unfortunately, she wasn't wearing her seat belt and will never walk again.

The simple choices we make every day can have the greatest impact on our lives. No one knows that better than Karen and her family – and they've shared their story in hopes of reaching other Soldiers. To view it, click the QR code to the right with your smartphone's QR code reader app. The video can also be found on the USACR/Safety Center video page at https://safety.army.mil/Risser-Story.

LOST

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, email safe.knowledge@conus.army.mil.

AVIATION

UH-60L

CLASS A

- Two personnel were injured when the aircraft crashed while conducting a passenger drop-off in a nonstandard helicopter landing zone.

C-12R

CLASS C

- The crew experienced a severe updraft/microburst during an instrument landing system configuration for landing. The aircraft initiated a nose-up, uncommanded climb, resulting in a loss of airspeed. The crew recovered and negotiated wind turbulence and landed without further incident. Both engines suffered overspeed conditions.

UAS

RQ-7B

CLASS C

- The unmanned aircraft failed to ascend to prescribed altitude upon launch. The crew deployed the recovery chute when the UA descended below 400 feet above ground level. The UA made ground contact two kilometers from the landing strip, but within the training area.

- The crew experienced an engine failure just prior to touchdown. The UA descended to ground contact from about three feet. The Tactical Automated Landing System did not respond to input, and the aircraft veered off the runway. The UA incurred damage to the arresting gear and stake.

GROUND

Other

CLASS C

- Two Soldiers were injured when the General Services Administration vehicle they were traveling in was struck by a privately owned vehicle.

Personnel Injury

CLASS A

- A Soldier was killed and another injured from a presumed fall from a designated climbing site at a national park.

CLASS B

- A Soldier lost a portion of her thumb when a .50-caliber round exploded in her hand.

DRIVING

POV

CLASS A

- A Soldier was killed when he lost control of his speeding vehicle, which overturned several times and caught fire.

LOSSES AVIATION — FISCAL 2012 Class A/Fatalities thru July 2012

ATTACK	3/0
RECON	2/4
UTILITY	6/6
CARGO	3/0
TRAINING	0/0
FIXED-WING	1/0
UAS	6/0
TOTAL	21/10

as of Aug. 5, 2012

- A Soldier was severely injured when he attempted to pass a farm tractor turning left in front of him.

- A Soldier died when he was speeding in the oncoming lane of traffic and collided head-on with an approaching vehicle, also killing its driver.

- A Soldier was killed when he lost control of his vehicle, crossed the median and struck a tractor-trailer head-on.

LOSSES GROUND — FISCAL 2012 Class A/Fatalities thru July 2012

AMV	12/11
ACV	6/4
PERSONNEL INJURY (includes weapons-handling accidents)	21/15
FIRE/ EXPLOSIVE	2/2
PROPERTY DAMAGE	2/0
TOTAL	43/32

as of Aug. 5, 2012

CLASS C

- A Soldier was injured when he was driving to morning formation and was rear-ended by another vehicle. The impact caused the Soldier's SUV to collide with another vehicle.

- A Soldier was injured when she turned at an intersection and her vehicle was struck by another motorist who violated right of way.

POM

CLASS A

- A Soldier was riding his motorcycle when he lost control, went off the road and ultimately came to rest in an intersection. The Soldier was transported to a hospital, where he was pronounced dead.

- A Soldier died when he went wide in a turn, encountered loose gravel, hit a mailbox and was thrown onto the side of the road.

- A Soldier was killed when a motorist violated right of way and pulled into his path in an intersection.

- A Soldier lost control of his motorcycle and was killed when it left the road and struck a fixed salt bin on the side of the highway. The Soldier had been attempting to reenter his lane after passing a slower vehicle when the accident occurred.

- A Soldier riding a sport bike borrowed from another Soldier was killed when he struck a guardrail.

- A Soldier was killed while riding another Soldier's sport bike when he hit a raised center median and was thrown onto the ground.

- A Soldier died when he lost control and crashed in a curve, striking a telephone pole.

- A Soldier was killed when he pulled into the oncoming lane to pass a vehicle and struck a van head-on.

LOSSES POV/POM — FISCAL 2012 Class A/Fatalities thru July 2012

CAR	34/34
SUV/JEEP	7/6
TRUCK	2/2
MOTORCYCLE	42/39
PEDESTRIAN	5/5
OTHER* (*Includes vans, ATVs, snowmobiles and bicycles)	1/0
TOTAL	91/86

as of Aug. 5, 2012 — Fiscal Year 2011: 89 — Three Year Average: 87

CLASS C

- A Soldier was hospitalized for two weeks and lost 60 workdays after he crashed and was thrown 100 feet from his motorcycle. The Soldier's injuries included bleeding of the brain and road rash to the bone on one knee. The Soldier's helmet came off during the crash. He had not completed Motorcycle Safety Foundation training.

Firearms Safety Techniques, an interactive site, is available for Soldiers, Family members and Civilians to learn about off-duty safe firearms handling. Visit the site for more useful firearms safety resources.

TAKE THE CHALLENGE, LEARN THE LESSON.

FIREARMS safety techniques

GIVE IT A SHOT!

Visit https://safety.army.mil/firearm-safety and get on target today

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https://safety.army.mil

ARMY SAFE IS ARMY STRONG

The signs are all around.

It's up to YOU to recognize and act on them.

KNOW WHAT'S RIGHT

know the signs

DO WHAT'S RIGHT

Training, Discipline and Standards

Training, discipline and standards are the bedrock of our Army, and as Soldiers, you've been taught what right looks like. As leaders, you have a duty and a responsibility to maintain standards in your formation. You also have an obligation to your Soldiers and their families to manage risk and take action to correct problems. In our fight against accidental fatalities, knowledge is the weapon of choice.

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AIRCRAFT MAINTENANCE: THE ACCIDENT THAT SHOULD'VE HAPPENED

KNOWLEDGE

VOL 6 OCTOBER 2012

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

COLD WEATHER CONSIDERATIONS

- MOTOR POOL SAFETY
- DROWSY DRIVING
- HIGH-ALTITUDE TRAINING

+

BRAKING BASICS

U.S. ARMY

ARMY STRONG.

SCAN HERE FOR KNOWLEDGE ONLINE

The signs are all around.

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KNOWLEDGE

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

LEADERS SOLDIERS CIVILIANS FAMILIES

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Mission statement: The United States Army Combat Readiness/Safety Center (USACR/Safety Center) supports our Army by collecting, analyzing and communicating actionable information to assist Leaders, Soldiers, Families and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please email comments to **safe.knowledge@conus.army.mil**.

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Knowledge provides a forum for Soldiers, Leaders and safety professionals to share best practices and lessons learned and maintain safety awareness. The views expressed in these articles are those of the author and do not necessarily reflect the official policy or position of the U.S. Army, Department of Defense or the U.S. Government. Contents are specifically for accident prevention purposes only. Photos and artwork are representative and do not necessarily show the people or equipment discussed. Reference to commercial products does not imply Army endorsement. Unless otherwise stated, material in this magazine may be reprinted without permission; please credit the magazine and author.

> "THE PLAIN TRUTH is we are IN CONTROL, accidents aren't inevitable and while RISK MAY BE EVER-PRESENT, there's certainly a lot we can do to MITIGATE, REDUCE AND EVEN ELIMINATE IT."

EVERYBODY'S BUSINESS

Everyone has pet peeves, and one of mine is litter. I can't pass by a piece of trash, no matter how big or small, and just let it continue lying on the ground. I have to pick it up and find a garbage can, even though it's not technically my "job" to do so. I look at it like this: We all share the same common spaces, and everyone should do their part to take care of it. Rank and position don't matter — it's about doing what's right for the greater good. Besides, it's what, 10-20 seconds out of my day?

It's the same with safety. Just because you have unit safety officers doesn't mean you should overlook safety violations or breaches of standards, thinking it's their job to handle the issue. One of our most fundamental duties as Soldiers is executing our missions at minimum risk. When you see your fellow Soldiers violating standards, whether intentionally or unintentionally, and don't speak up, you miss the opportunity to maintain standards and prevent a needless accident; at worst, the situation ends in the tragic loss of life.

This is where a discussion of culture becomes relevant. Our Army culture is defined by the Warrior Ethos and our seven Army Values, with many other subcultures at play (for example, Aviation doesn't have the same culture as Infantry, and so on). Safety, I believe, is at its core an unspoken "eighth" Army value that affects every branch, every MOS and every person. We should be building a safety culture that motivates everyone on the team to do the right thing all the time, for both themselves and their fellow Soldiers.

The term "safety culture" was born from the Chernobyl nuclear disaster, the first time in modern history that attitude, at both the individual and organizational level, was recognized for directly impacting not only safety, but also efficiency and accuracy. Private industry soon adopted the safety culture model, and our nation's military has taken a special interest in it during the last decade or so. The Army's sustained downward trend in accidents during the past several years shows our safety culture is evolving in the right direction.

But that doesn't mean we don't have room or the obligation to grow. There are still "pockets" where safety is seen more as an externally applied mandate that comes from the top and trickles its way down to the lowest level. Studies from both the private and public sectors have shown, however, that safety culture fully matures only when change comes from the top and bottom simultaneously. In effect, we have to make every Soldier a safety leader with ownership of not only their personal safety, but the Army Safety Program, and give them a voice in the safety process. That means leaders will have to listen, and those charged with safety functions within their units must realize safety isn't proprietary — it's everyone's business.

We've also got to move away from a compliance-based mindset. Those "check the block" requirements outlined in regulations and directives provide only a framework for safety programs. Commanders who fail to look within and allow their Soldiers a say in safety are building a very shaky house, one that cannot stand up to the tests of hazards and risk. Filling in the gaps between those directives with thoughtful, proactive mitigation strategies tailored to the unit's unique circumstances provides the best foundation for Soldiers to stay safe 24/7, whatever their duty status or activity.

Finally, I believe we need to rethink the way we look at "accidents." The term itself suggests we're not in control of anything going on around us. Combined with the generally accepted notions that accidents just happen and a certain amount of risk is to be expected, we've set up our Soldiers for failure. The plain truth is we are in control, accidents aren't inevitable and while risk may be ever-present, there's certainly a lot we can do to mitigate, reduce and even eliminate it. As leaders, fate can play no part in establishing a proper safety culture, and we must not approach our safety programs believing it does.

I said in my introductory column here a couple months ago that I don't have all the answers. I'm still learning, and from what I know right now, I truly believe there is no end to the progression of our safety culture. It will change with the times and be affected by countless external factors, like whether our Army is at peace or war or how funding shortfalls affect every aspect of operations. What's important is that we keep up and evolve right along with it.

I welcome your feedback on this subject and any problems or concerns you have. To do my job effectively, I must know your needs first. Please let me know how I can help and how the USACR/Safety Center is or isn't assisting you and your Soldiers in meeting your safety goals.

You all do a remarkable job every day for our Soldiers, their Families and our Civilian workforce. I thank you for that and hope you have a wonderful fall season. Remember that many of your Soldiers will be taking advantage of the cooler weather for long motorcycle rides or celebrating with friends at tailgates and football parties. Looking out for one another and treating safety as an absolutely imperative part of your job will do a lot to ensure everyone makes it home alive.

Army Safe is Army Strong!

TIMOTHY J. EDENS
Brigadier General, USA
Director of Army Safety

The Good Rider- Braking Basics

DAVID L. HOUGH
http://soundrider.com

Editor's note: David L. Hough has authored several popular books on riding safety and served as a columnist for Motorcycle Consumer News, BMW Owners News and Sound RIDER! magazines. To support Soldier riders, Hough and Sound RIDER! publisher Tom Mehren have granted reprint permission to Knowledge for Hough's "The Good Rider" series. This issue features his article on braking basics.

Riding on public roads exposes us to all sorts of hazards. The key to avoiding crashes is to maintain your awareness of what's happening ahead so that you can make simple corrections to not be at the wrong place at the wrong time or the wrong speed. In city traffic, braking gives you options for quickly getting out of the way of other vehicles. Out in the country, braking gives you options for avoiding hazards such as stalled vehicles or wandering animals. Once in a while, you need to brake very aggressively to avoid a hazard that suddenly pops into view. For such situations, it's important to develop the correct muscle memory to brake without losing control.

Novice riders in training courses are often reminded of concepts such as "the front wheel does 70 percent of the braking." That's good advice for novices, but at some point, a rider needs to move beyond novice techniques. Braking is a skill worth developing. Even if your bike has an anti-lock brake system, there are more than a few situations where ABS can't save you from bad habits or undeveloped skills.

The Tires Stop the Bike

We might come to believe that it's the brakes that stop the bike, but really, it's the tires. Brakes can stop the wheel from turning, but it is the tire's traction against the road surface that forces the motorcycle to slow down. That means we need to be aware of the condition of the road surface as well as our tires. The situation determines our braking technique.

For purposes of braking technique, let's define "braking force" as the deceleration force applied by the tires, not the force pressing the brake pads against the disc.

Traction is a Function of Weight

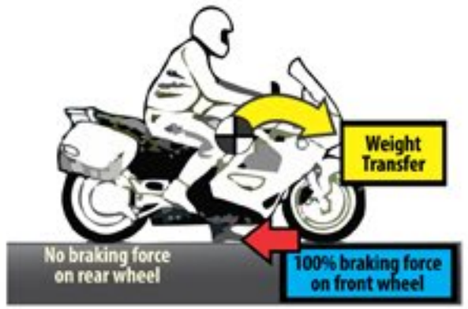
The braking force that a tire can supply is directly proportional to the weight pressing the tire onto the roadway. Let's imagine a motorcycle and rider with a combined weight of 800 pounds, equally supported on both wheels. The load on each wheel would be 400 pounds, so each tire could provide 400 pounds of braking force to slow the bike. That's the braking force available at the start of braking, but the situation changes quickly.

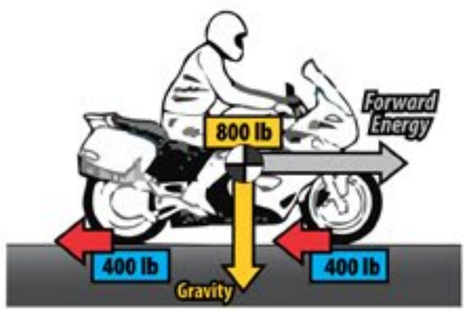
Weight Transfer

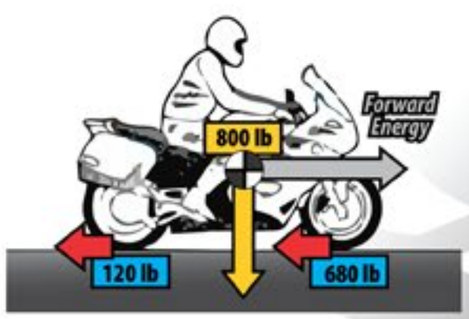
At rest, a motorcycle's inertia resists movement. To accelerate a motorcycle up to highway speed, engine power is required to overcome inertia, wind resistance, etc. The flip side of inertia is that once up to speed, the motorcycle wants to keep moving straight ahead at the same speed. So, to decelerate the motorcycle, the brakes must overcome the machine's inertia. The kinetic energy of the speeding motorcycle is converted to heat as the brakes are applied.

Although the motorcycle, rider and load are composed of many bits and pieces, we can pretend that the whole collection has a center of mass, and that gravity and inertia act on that single point. The COM will probably be somewhere in the middle of the heaviest parts, perhaps midway between the rider's knees.

Now, when the brakes are applied, the braking force is way down at the contact patch of the tires, while kinetic energy (forward energy) is acting much higher on the bike. The result is that under braking, everything pitches forward, applying more weight onto the front tire. We sometimes call this weight transfer. The point is, as the front tire is pressed more onto the surface, it gains traction, so it's capable of more braking force. If the front tire has sufficient traction, aggressive front braking can lift the rear tire off the surface (a stoppie). In that situation, 100 percent of brake force would be on the front tire and nothing on the rear. The rear brake could be fully applied with







the wheel locked, but with the tire waving in the air, it can't apply any braking force.

However, in the interests of keeping the bike pointed straight ahead, it would be good to have some weight on the rear tire. So, a more realistic maximum braking situation for an 800-pound motorcycle would be something like 680 pounds braking force on the front, 120 pounds on the rear.

There have been some serious real-world motorcycle braking tests in the past few years, and the results suggest that more aggressive braking is possible. You can get on the front brake very quickly without the tire skidding — if you are very smooth in squeezing the lever progressively harder to match the weight transfer. If you haven't practiced aggressive stops for a while, I suggest you squeeze the lever progressively over one second, the time it takes to say, "one thousand and one." As you gain skill, you can gradually get that time down to a half-second. The goal is to be fully on the brakes as quickly as possible without skidding either tire.

Braking Technique

Regardless of the brake system on the machine you're riding, the same general techniques will apply. First, squeeze the clutch when braking aggressively to separate engine compression braking from the equation. If you just roll off the throttle without using the clutch, engine braking may exceed available traction and cause a rear-wheel skid. Squeezing the clutch lever as you brake makes it easier to control the rear wheel.

I suggest applying both front and rear brakes simultaneously. Then immediately ease up on the rear brake pedal as you squeeze harder on the front lever. If you can't seem to avoid skidding the rear tire, ignore the rear pedal and concentrate on the front brake. Sport bikes, because of the short wheelbase and powerful front brakes, make it much easier to loft the rear wheel. ABS won't help prevent a stoppie, since the front wheel isn't locking up. Cruisers and sport touring bikes, with longer wheelbases, have more of a rearward weight bias that helps keep the rear wheel on the ground.

Off the Brakes

It's also important that when you get off the brakes, you ease off rather than just let go of the lever. That's especially important if you are braking aggressively to slow down, but you're not making a complete stop. Remember that during hard braking, the front tire is loaded more. Suddenly popping off the brake lever will cause the front tire to unload, reducing traction. So, smooth on the brakes, smooth off the brakes.

Practice Makes Perfect

You can't expect to be skillful just by reading about it. The only way to improve your skills is to practice. The point is to make braking so familiar that you do it automatically without having to think about it. To put this another way, you want to develop the muscle memory to brake correctly for any situation. The way to develop muscle memory is to practice the correct skills over and over.

I suggest finding a quiet area away from traffic and making a series of quick stops, preferably at the start of your riding season. Perhaps you can borrow a vacant portion of a parking lot early on a Sunday morning. If it's your first time practicing quick stops, spend two or three hours honing your braking skills.

Lay out a straight "braking chute" about 100 feet long, with lots of run-out room at the end. You can mark the chute with small cones or tennis balls cut in half, with double markers for the point where you will start to brake. Be cautious at first, making your first run at no faster than 18 mph. If you slide the rear tire at that speed, you need to correct that problem before bumping your speed up. But if you ride at 70 mph, shouldn't you eventually work up to initiating an aggressive stop from 70 mph?

Regardless of your experience level or the braking system on your bike, there is a big difference between slowing from 70 mph to 40 and making a controlled stop from 40 mph to 0.

Do us both a favor and wear your best abrasion-resistant riding gear — just in case you make a mistake. I've seen more than a few experienced riders who crashed while attempting their first quick stop — typically a result of an inflated image of their not-so-good braking skills. Even if you think you're very good at braking, I advise you to start conservatively and gradually work up to higher approach speeds as you demonstrate to yourself that you have the techniques down.

Rear Wheel Skids

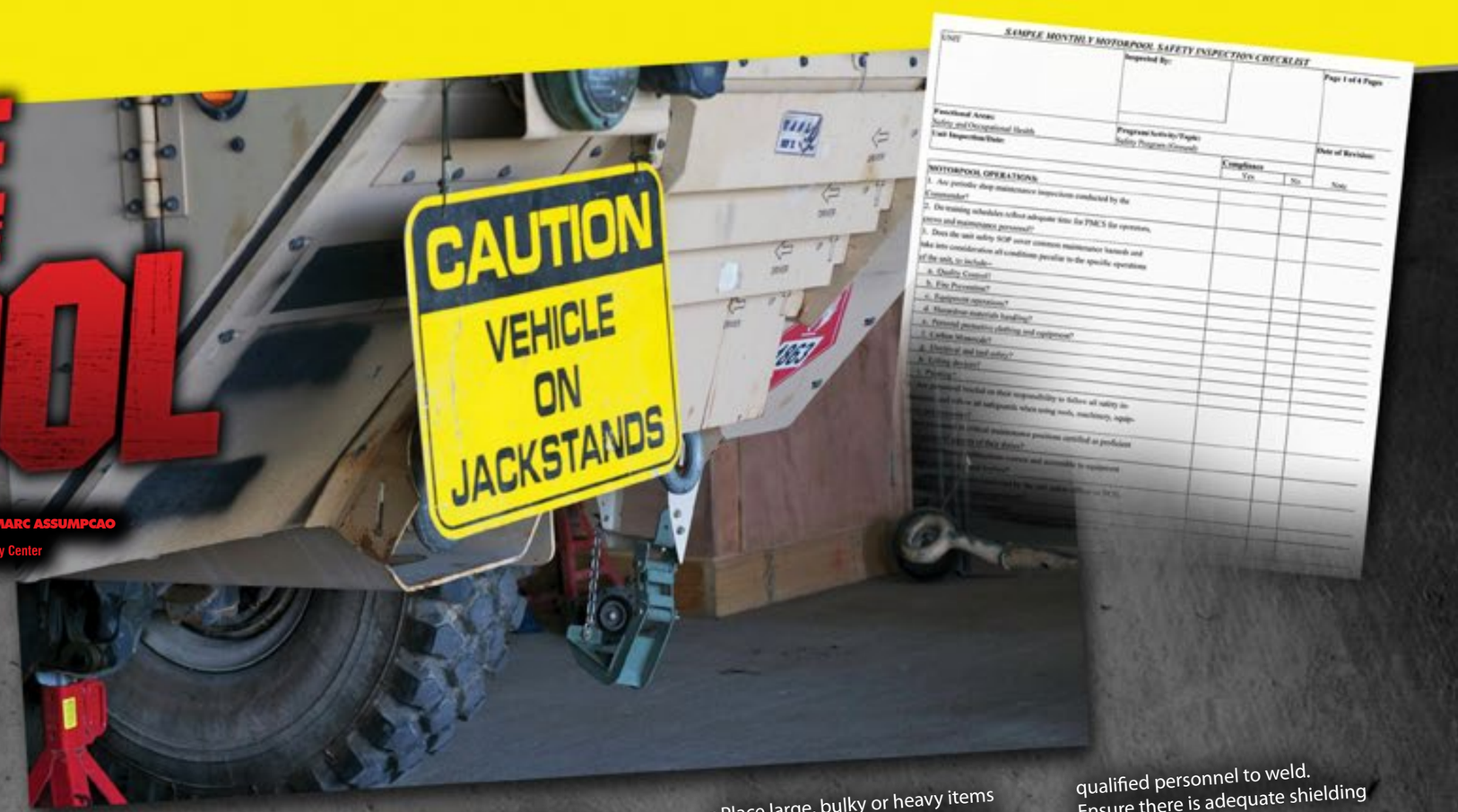
Be aware that as your approach speeds increase, forward energy increases, and that tends to decrease rear wheel traction during an aggressive stop. The danger is that if you skid the rear tire into a slideout and then panic and pop off the pedal, the bike is very likely to snap back to center and throw you over the "high side." To avoid a high side crash, you need to know if you're sliding the rear tire, and that's not easy to detect from the saddle. I advise you to find a riding partner who can take turns practicing and observing stops, and provide some feedback to each other on what's happening.

Front Wheel Skids

Front wheel skids result from grabbing the lever too quickly, or holding a death grip on the lever even as the tire begins to slide. An impending front tire skid causes steering to feel light and unresponsive. If steering suddenly feels rubbery under aggressive braking, you should ease up slightly on the lever. And if the front tire suddenly begins to slide, ease off the brake lever to restore traction and then squeeze again — more smoothly.

If the mere thought of practicing quick stops makes you break out in a cold sweat, I suggest signing up for a training course where you can build skill under the watchful eye of an instructor. The big advantage of practicing braking at a training course is getting immediate feedback from an instructor who is observing your technique.

SAFETY SENSE IN THE MOTOR POOL



CHIEF WARRANT OFFICER 4 MARC ASSUMPCAO
Ground Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Equipment maintenance is a necessary and inherently dangerous task. To ensure the safety of our Soldiers and Civilians in maintenance facilities, we're required to use risk management as well as acknowledge the potential health and safety hazards present in the workplace. We also need to determine where and how personnel are likely to become injured or killed. The path to success 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 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 costs and time spent with avoidable injuries, accidents and damage to equipment.

The overall effectiveness of a safety program is measurable through leadership engagement, personal involvement and supervision. Leaders must insist on adherence to established safety rules and standards. At the same time, they should continually evaluate their mission for innovative preventive measures to enhance the unit's safety program.

To ensure the safety of personnel during maintenance operations, leaders and supervisors must develop and implement safety standard operating procedures and policies. In addition, they must educate personnel on existing Department of Defense, Department of the Army, Occupational Safety and Health Administration and National Fire Protection Association regulatory requirements. Implementing and adhering to 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 might just prevent the next mishap in a maintenance facility or motor pool:

- Keep maintenance bays clean, neat and free of fire hazards at all times.
- Maintain vehicle speeds at a minimum, usually 5 to 10 mph, or as posted, when operating within the limits of a maintenance facility. Always use ground guides!
- Create and post a safety board in an easily accessible area.
- Ensure eyewash stations and emergency showers are available in areas where personnel use hazardous chemicals.
- Store petroleum, oil and lubricant products in approved containers and in well-ventilated and marked areas. Frequently inspect storage areas where hazardous materials are stored. Ensure the proper disposal of contaminated POL products.
- Only allow trained and authorized personnel with appropriate personal protective equipment to apply chemical agent-resistant coating.
- Ensure spill clean-up supplies are available, to include shovels, dry sweep, brooms, empty containers and protective clothing.
- Store and secure gas cylinders to a wall or fixed surface to prevent tipping, falling or rolling.
- Post and observe floor load-bearing capacities.
- Clearly mark designated smoking areas.
- Operate power tools away from explosives, flammable liquids, gases or dust. Power tools create sparks, which may ignite dust or fumes.
- Store battery packs away from other metal objects.
- Place large, bulky or heavy items away from doors to facilitate easy movement in the event of an emergency.
- Gasoline/gasoline byproducts or items containing these (rags, pans, brushes, etc.) will not be stored inside any maintenance facility or storage room at any time.
- Maintain all lifting devices (jacks, jack stands, hoists, cranes) in serviceable condition. Inspect these devices periodically in accordance with equipment maintenance manuals and SOPs.
- Stencil the max load capacity on both sides of the support assembly of overhead cranes and hoists so it is visible to personnel.
- Conduct refueling operations in a safe manner and under supervision.
- Only allow fully trained and qualified personnel to weld. Ensure there is adequate shielding and ventilation.
- 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 must be well illuminated. A cover must be used at all times when a vehicle is not over the pit.
- Ensure serviceable PPE is readily available and worn as required by all personnel.

Whether working in a maintenance tent or motor pool, remember that the safety of Soldiers is paramount.

The Horseshoe Valley

CHIEF WARRANT OFFICER 3 CHAD E. STINAR
Company B, 12th Aviation Battalion
Fort Belvoir, Va.

There I was, a fairly fresh pilot in command, flying away from a place called Salerno in the eastern part of Afghanistan on a warm summer day in a fully loaded UH-60A Black Hawk (the "A" is noteworthy in this story). By fresh, I mean I had a couple hundred hours of PC time. To some, that might sound like plenty. But to me, on my first combat tour, I still felt unsure of myself.

Flying west from Salerno put us into mountainous terrain rather quickly. Many of the pilots in my battalion had received mountain flying training at Colorado's Army National Guard High-Altitude Aviation Training Site prior to our deployment. This was essential, considering the terrain in Afghanistan. I had those techniques in the back of my mind as we proceeded back to Bagram Air Base, just north of Kabul.

I was on the controls and our route was the same as usual, or so I thought. In typical complacent fashion, I had made a small error without realizing it. Instead of the pass through the mountains that I usually took — the one with the gradual increase in elevation — I accidentally took a different path that required a much more abrupt climb. What's more, I hadn't yet noticed my navigational failure. Remember when I said that the "A" would be noteworthy. Well, the A-model Black Hawks our unit was flying then were pretty old. The newer L-models had more powerful engines and better performance. I was high, hot and heavy in an A-model with a mountain ahead me and my crew acting fat, dumb and happy, paying little attention to our route. As you can see, the strikes were adding up.

I finally noticed the looming ridgeline out the windscreen. I soon realized this wasn't our usual route through the mountains and, without delay, informed my crew. I immediately started a climb, but

it seemed slow. In reality, it was slow due to all those strikes I referred to earlier. As each crewmember caught on to the gravity (pun intended) of our situation, the lively conversation we usually had while cruising diminished and then went silent. I looked down at my engine instruments and adjusted the power to the maximum I could, increasing the collective, noting limitations on engine temperature, etc. The whole time, I was also slowly reducing my airspeed to the Hawk's maximum climb rate speed. Basically, I had set up the aircraft to climb as fast as it was capable, and the distance to the crest of the mountain was steadily shrinking.

While my HAATS training was going through my head like a mantra, I noticed one last thing I hoped wouldn't turn out to be the straw that broke the camel's back. The pass we were in was shaped like a horseshoe, with us on the inside of the curve. One of the concepts we learned in our mountainous terrain flying course was to have an escape route whenever approaching a ridge. This meant I needed to turn, preferably to the right — the direction that required the least power — to avoid flying into terrain. In this situation, it didn't really matter which way required the least amount of power because being on the inside of the horseshoe-shaped pass, I couldn't turn either direction. All I could do was fly straight, keep my aircraft set to climb as fast as it could and hope for the best.

The silence was deafening as we watched the crest of the ridge slowly fall away in the windscreen. Our altitude above the ground was decreasing as we climbed, so by the time we made it over the top and were able to breathe again, we had gotten uncomfortably close to the trees. I was able to reduce the strain on the engines, transmission and rotor system and accelerate a little. Breathing again was a welcomed privilege. I don't remember who the first to speak was, but it took another 10 minutes before we had all relaxed enough to fully discuss what had just happened.

These kinds of stories always have a lesson to learn, right? Well, this one is no different. Former NASA astronaut Frank Borman once said, "A superior pilot uses his superior judgment to avoid situations which require the use of his superior skill." As pilots, we've heard the warning "complacency kills" many times, and it is especially true in aviation. Watch what you're doing. Treat every mission with the same focus and attention to detail as if you'd never flown it before because circumstances can change. No flight is ever truly the same as any other. As my drill sergeants always told us, stay alert to stay alive.

> "Treat **EVERY MISSION** with the same **FOCUS AND ATTENTION TO DETAIL** as if you'd **NEVER FLOWN IT** before because circumstances can **CHANGE**."

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A LITTLE WISER NOW

DAVID W. ADAMS
Headquarters and Headquarters Squadron
Marine Corps Air Station Beaufort
Beaufort, S.C.

The speedometer needle tickled 90 mph as I headed onto an off ramp. The speed limit was only 65 mph, so, to be safe, I took my foot off the gas pedal as I entered the exit. It never occurred to me that cruising 25 mph over the speed limit might pose a problem. I was doing just fine until my pickup's rear end started sliding to the left. I thought, "Hmm … maybe it was dirt on the road or a bad angle on the ramp." Either way, I figured I was about to go flipping end over end.

That thought was scary. It was about 3 a.m., and I was in the middle of nowhere. I was headed for a ditch that looked pretty deep. I wondered if anyone would find me. Suddenly, the truck's rear end shifted back toward the right and I was going straight again. Whew — talk about pucker factor!

I stopped the truck, stepped out and grabbed a flashlight. I knelt beside my truck to check for damage and was amazed when I didn't find any. Not fazed at all by what just happened, I climbed into my truck, got back up to 90 mph and made it to the base in less than an hour. Safe and sound, I went to work late that day and never gave my close call another thought.

That was a few years ago. Back then, I was young and invincible — or at least that's what I thought. Looking back with the wisdom of a bit more age and experience, I now have a little different view of things.

For instance, how about speeding? We don't think much about speeding because we all do it. Driving in traffic, dodging cars, trucks and the occasional police officer — it's all just part of having fun when you're young, right? Well, maybe not. On this trip, I had to cruise at 90 mph just to keep up with traffic. However, at that speed, one little slipup could lead to instant disaster. Experience taught me that slowing down makes more sense. Wherever I'm going, it will still be there whether I get there a little sooner or later.

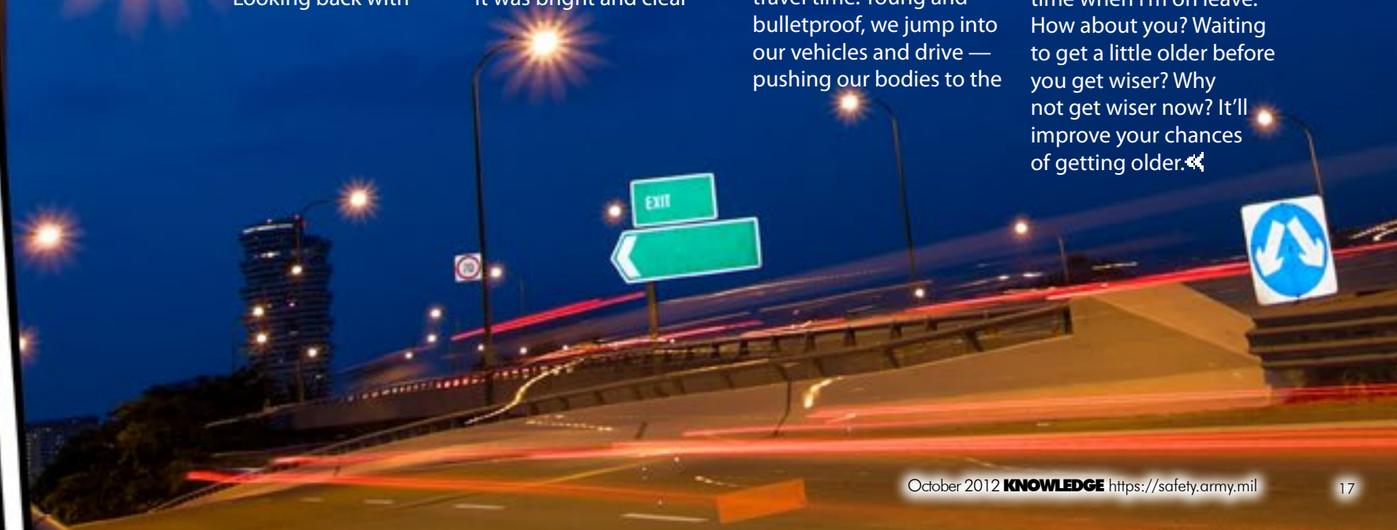
Better planning that day would've helped out too. Unwisely, I waited until the last moment to head back from leave. It was bright and clear when I started out early that day, and the traffic was light. However, that would later change, as traffic became heavier and turned into a real bumper-to-bumper snarl. That didn't really bother me because I was young and had cat-like reflexes. I just continued on, stopping for lunch and then hitting the road to get back to base as quickly as I could. I'd tried to use as little of my leave time as possible for traveling. Not the best plan for a young guy, and I can see that now.

This is something a lot of us do when we're young and in the military. We fail to look before we leap, not considering how things like road construction and heavy traffic can eat into our travel time. Young and bulletproof, we jump into our vehicles and drive — pushing our bodies to the limit. Unfortunately, that doesn't always work out well behind the wheel. We don't realize the Grim Reaper has an easier time finding us when we don't find time for safety.

> "We don't **REALIZE** the **GRIM REAPER** has an easier time **FINDING US** when we **DON'T** find time for **SAFETY**."

Now that I am a little older and wiser, I take a different approach to road trips. I invest time in planning the route — allowing for things like road construction — and add in a little time for accidents and traffic tie-ups. I also choose to observe the speed limit. Just because the rest of the drivers are cruising at 90 mph doesn't mean I have to drive that fast. It's the smart lemming that doesn't run off the cliff with the rest of the crowd.

I've learned to do a better job balancing vacation time and travel time when I'm on leave. How about you? Waiting to get a little older before you get wiser? Why not get wiser now? It'll improve your chances of getting older.



SPEAKING UP FOR SAFETY

CAPT. LESLIE BATTLE
174th Air Defense Artillery Brigade
Ohio Army National Guard
Columbus, Ohio

In the quest to be the best-trained, best-equipped military in the world, Soldiers and equipment are pushed to the limit during grueling exercises and operations. However, we cannot forget that safety must always be considered and integrated into any activity, both on and off duty.

> "Military professionals **MUST** be able to **EXPRESS THEIR CONCERNS** in an appropriate manner, especially when conditions **MAY RESULT IN UNSAFE OPERATIONS.**"

Unfortunately, Soldiers can feel intimidated by the need to complete the mission. The source of the pressure may be personal desires or by order of a superior. Military professionals must be able to express their concerns in an appropriate manner, especially when conditions may result in unsafe operations. I personally experienced such a situation as a young sergeant during an annual training exercise for the Ohio Army National Guard.

Camp Grayling, Mich., was a popular training site for Guard commands of neighboring states. It has a well-developed cantonment area, coupled with realistic terrain in the field training sites. Soldiers earned driving hours during the trip from home station, and the available facilities made the relatively short stays fairly comfortable. However, training requirements sometimes dictated that Soldiers be shuttled between the field sites and the cantonment area to facilitate classroom instruction for certain required sessions. For units with limited access to vehicles, Soldier transport had to be coordinated with other support units. My unit was camped in our designated field-training site. Many of us were required to complete certain briefings prior to the end of AT. I have to admit, I don't even remember what the training was, but considering it was not associated with a mobilization, I can infer that it was a routine, annual requirement.

One day, we were alerted about 6 p.m. that a vehicle was on its way to return us to the cantonment area. Those affected needed to bring the necessities for an overnight stay and wait for the vehicle to arrive. After waiting for the

FOR YOUR CONSIDERATION

1. Do you have an accurate perception of the amount of corner cutting occurring in your organization?
2. How does your organization monitor/correct those who cut corners?
3. Do Soldiers, Civilians and contractors in your organization have the opportunity to raise a flag without fear of criticism or retribution?
4. Is your organization over-tasked to the point that deadlines are not attainable without cutting corners? Can your higher headquarters assist (e.g., tasking, OPTEMPO, manning, resources, etc.)?

Visit https://arap.safety.army.mil/ to learn more about how ARAP can help your organization.

vehicle for an hour or so, another noncommissioned officer asked our first sergeant if there was a change in plan. He was advised to remain ready to leave, as he really didn't know why the vehicle was late or when it would arrive. So, we continued to wait.

As darkness arrived, we remained in the pickup area with our gear. A couple of times, our first sergeant came out to tell us that someone had radioed him that the vehicle was on the way. Again, we waited as instructed. Some Soldiers expressed a desire to return to the tents for a nap until the vehicle arrived, but they were warned to not leave the area because of the risk of missing movement. And sleeping in the waiting area was deemed unsafe due to the potential of drivers not being able to see us in the dark.

About 2:30 a.m. — 8½ hours after we were first notified to be ready for transport — our battalion commander and sergeant major arrived in a truck. Evidently, they'd been advised we were still awaiting movement and our training was scheduled to begin at 7 a.m. Upon their arrival, we immediately began climbing into the cargo area of the truck with our personal gear.

In the flurry of activity, the sergeant major asked me, "Where are your drivers?" As the company safety NCO, I explained to him we had all been awake since 5 a.m. the previous morning and none of us were rested enough to safely drive the distance back to the cantonment area, which included passing through a local town. The sergeant major was insistent one of our Soldiers drive. However, I was convinced one of our Soldiers would likely fall asleep at the wheel and cause an accident with a cargo bed full of his peers.

> "As the years pass, I will **NEVER FORGET** that night when **I STOOD UP** for **MY PEERS AND MYSELF.**"

I decided to word the situation in the plainest terms I could think of: "Sergeant major, we can put one of our Soldiers behind that wheel and instruct them to drive through town. And likely it would be you or the colonel who would have to explain why he crashed into a storefront or another vehicle should something happen." He looked at me and started to respond; but after considering my hypothetical scenario, told me to finish getting our Soldiers in the truck. He ended up driving.

Can I say that I avoided an accident that night? Of course not, but I am proud to know I will never have to regret staying silent when someone needed to say something. Since that early morning, I have earned a commission in the National Guard and now serve as an additional duty safety officer for my brigade headquarters. As the years pass, I will never forget that night when I stood up for my peers and myself. Speaking up for safety might just save a life.

THE PRICE OF CUTTING CORNERS

ARMY READINESS ASSESSMENT PROGRAM TEAM
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Most of us know that cutting corners is a means of bypassing a prescribed process. Unfortunately, in our Army, some Soldiers mistakenly view procedural tasks as cumbersome, with steps that can be circumvented with no repercussions. However, these individuals probably don't understand why procedures are so important in day-to-day operations. Many times, procedures are written in blood — that is, they're emplaced after an accident.

The Army Readiness Assessment Program is a web-based tool that provides candid data to battalion and higher-level commanders regarding their formation's readiness posture. The online ARAP survey compiles Soldier, Civilian and contractor perceptions of their organization's command climate and safety, with an emphasis on safety concerns. Since its inception, more than 1.26 million Soldiers, Civilians and contractors have completed the ARAP survey.

Survey item No. 23 asks respondents to rate whether unit leaders allow cutting corners to get a job done. Surprisingly, 47 percent of respondents who provided measured responses don't perceive full compliance with procedures within their units!

Statistics show that Soldiers and organizations both cut corners. When individuals and organizations cut corners, reasons may include:

- Poor attitude
- Lack of skill or experience
- Rushing to complete a job
- Poor leader/personal time management
- Perceived/actual pressure from leaders/supervisors
- Belief that:
  - Corners can be cut without compromising safety
  - Standard operating procedures are out of date
  - There's too much "red tape" to do it by the book
  - If we didn't cut corners, nothing would get done
  - This is the way you do it while deployed
  - These are the resources I have to get the job done
- Organizational climate condones cutting corners
- "Deadlines" cannot be met without cutting corners
- Overtasked
- Poor organizational time management

So, what can be done about cutting corners? Most procedures include practical and necessary steps designed for the completion of tasks without incident or injury. If some procedures appear questionable, it's incorrect to assume they're unnecessary. Instead, individuals or units should seek clarification for the procedures from competent authorities then submit recommended changes if the procedural steps are incorrect or can be simplified. Unfortunately, an incident or mishap can occur when only one person fails to follow procedures.

THE ACCIDENT
That Should've Happened

WARRANT OFFICER JOHN CASTO
D Troop, 6th Battalion, 1st Cavalry
1st Brigade, 1st Armor Division
Fort Bliss, Texas

In 2011, during Operation New Dawn, I was serving as a Shadow unmanned aircraft system standardization operator at Forward Operating Base Warhorse. After a seemingly uneventful mission supporting my brigade combat team's collection requirements, I was called to the hangar by a ground crewmember to look at an aircraft that had just landed.

The RQ-7B Shadow has, among others, two six-inch center-wing bolts that secure the wing section to the fuselage of the aircraft. By the technical manual, once the bolt heads are flush with the wing surface, they are then torqued to 50 foot/pounds. Prior to this flight, the aircraft in question had been subjected to scheduled maintenance requiring the removal and replacement of these center-wing bolts.

The crewmember was in the process of performing a postflight service on the aircraft when he opened the aft compartment cover and noticed the two center-wing bolts were loose. The bolts were so loose that the heads were about two inches above the wing surface and only finger-tight. When the crewmember showed this to me, my initial thought was that a prank was being played, so I played it off as such. Once he convinced me he had not loosened the bolts himself and the aircraft did indeed fly for five hours in this condition, my first question was, "Why didn't this aircraft crash?"

With the center-wing bolts as loose as they were, I was able to grab one of the wings and move it about 10 degrees up and down along the lateral axis. However, during the debriefing, nothing out of the ordinary was reported by the flight crew during the mission.

The Shadow normally reaches about 70 knots at full-engine RPM and is launched from a rail using 2,000 pounds of hydraulic pressure to accelerate the aircraft to flying speed. With the excessive G-load on the aircraft at takeoff, I wondered why the wings did not fold completely off the fuselage upon launch. According to the flight crew, the aircraft performed normally with no reported indication in the control station that anything was wrong.

I inspected the logbooks and found where the scheduled maintenance was annotated by the crew chief and then reviewed by the technical inspector. I pressed the TI for some feedback about the scheduled maintenance performed on the aircraft prior to this flight. (A TI is tasked with physically verifying the proper setting on the torque wrench as well as visually inspecting the crew chief's work upon completion before he signs off on the work in the logbooks.) After some tap dancing, the TI admitted he had trusted the crew chief to supervise himself and took his word that the work had been completed to standard before he signed it off. This was where I began to understand the systemic failure and cause of the issue since the center-wing bolts don't back themselves out after they have been properly torqued.

I then engaged the crew chief, who, after some more tap dancing, admitted he had been in the process of torquing the center-wing bolts in place before something distracted him. Whatever the distraction, it caused him to inadvertently skip the entire step before moving on to other maintenance on the aircraft. Simply put, the crew chief forgot a critical step in the maintenance checklist and the TI took his word that it had been completed properly.

After forming a complete picture of where and how the defects occurred, I reported the incident to the platoon sergeant and platoon leader. The crew chief's and TI's defense was that the aircraft operator was just as at fault for not performing a complete preflight according to the checklist. In fact, the preflight checklist, even today, requires the operator to inspect the aft compartment cover, ensuring it is fully latched. At the time, the operator was not required to open the aft compartment cover to inspect anything inside, although nothing prevented the operator from doing so.

Human beings are prone to error. However, in aviation, errors typically result in injury and/or some form of damage to the aircraft. Due to this incident, the crew chief received corrective training and required immediate re-certification. The TI lost his authority and designation orders for the duration of the deployment. In addition, I added a step to our standing operating procedures requiring the aircraft operator to open the aft compartment and visually inspect the center-wing bolts for security.

This incident served as a valuable training tool for my platoon and an eye-opener for all involved in the operation. This was the first opportunity I had to perform any kind of "post-mishap" investigation. My unit never had another incident like this again and maintained a flawless incident record afterward. However, I still cannot explain why the aircraft held together not only during launch, but also for the entire duration of its flight.

Cold Weather CONSIDERATIONS

CORY KROLL
1st Brigade Combat Team, 82nd Airborne Division
Fort Bragg, N.C.

It's that time of the year when cold weather is upon Afghanistan. For those in theater, everyone should possess a working knowledge and understanding of the basic cold injury prevention methods. Cold weather is no joke back at your home station, and it's certainly a serious matter while performing combat duties in Afghanistan.

FYI

You Know

As most of us know, the weather conditions change drastically throughout Afghanistan in the summer, and winter is no different. We, as leaders, must remain cognizant of the weather conditions and identify any significant factors that will complicate our mission. Leaders at all levels can identify factors that will leave Soldiers more vulnerable to cold weather injuries. We should recognize and pay special attention to any of the following:

- Soldiers and Civilians with little experience or training in cold weather
- Personnel with previous cold injuries or other substantial injuries
- Individuals who use tobacco products/nicotine
- Any person who skips meals or has poor nutritional habits
- Anyone with a low level of physical activity
- Someone experiencing fatigue or sleep deprivation
- Anyone drinking little or no water

Junior leaders and others will look to senior leaders for sound guidance and advice. Therefore, we should teach them how to assess the hazards of living and working in cold environments. Some examples of questions we could ask to help prepare for the approaching cold weather include:

- Will Soldiers have adequate shelter and clothing during the mission?
- Is clothing clean and serviceable?
- Are tents, stoves or other approved heating sources available during the operation?
- How often will meals be consumed?
- Will meals be warm?
- Has the temperature and weather been reviewed for the operation?
- Will Soldiers be working with bare metal or fuel?
- Is the environment wet?

DID YOU KNOW?

The Ground Risk Assessment Tool is an interactive, automated online system developed to augment risk management and decision-making for ground operations. GRAT assists users in identifying, assessing and controlling hazards associated with specific missions or tasks and it also produces a risk management worksheet (DA Form 7566). Check GRAT out today by visiting https://grat.safety.army.mil/GRAT (AKO login required).

- Will Soldiers use the buddy system to prevent cold weather injuries?

Once we've identified and assessed the cold weather hazards, we can develop controls to mitigate the severity. The more time a unit spends fighting the terrain and its elements, the less time it has to focus on the enemy. Units must take into consideration the effects of extreme cold weather and its impact on their personnel and equipment. Proper risk management gives the unit conducting cold weather operations an excellent means of identifying and mitigating risks. Leaders must use this tool to be successful in any operation, and the cold weather environment will usually render a high on the risk assessment matrix. Prior planning for movement over frozen or icy terrain must not be taken lightly. Units must have recovery assets along with a solid medevac plan.

The majority of the movement conducted in the mountainous regions of Afghanistan comes in the form of air insertion. After completing the insertion, the rest will be done on foot, with Soldiers carrying anywhere from 80 to 100 pounds of equipment. During Operation Anaconda, infantry platoons were not acclimated to the high altitude where they were inserted. As a result, some Soldiers experienced shortness of breath, dizziness, decreased physical performance and vomiting. This can increase non-battle casualties, decrease the effectiveness of weapon systems and create problems for unit mobility. Soldiers need to ensure they consume the proper amount of water so they don't become dehydrated and eat at least three cold weather rations. These rations double the calorie intake from a normal Meal, Ready to Eat.

This winter, ensure your Soldiers are prepared. Understanding cold weather and the potential for injuries are key components to overcoming austere conditions and accomplishing the mission.

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INCREASE COMBAT POWER.
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SIPRNET

When RISK Rides the Road

RODERICK JOHNSON
Marine Corps Recruiting Depot
San Diego, Calif.

I was a drill instructor stationed at Marine Corps Recruit Depot, San Diego. Recently divorced and financially burdened, I couldn't afford a car. Instead, I purchased a red and silver Suzuki 750 motorcycle so I could get out and enjoy the San Diego weather and activities. The Suzuki was the first motorcycle I had ever ridden, so I began by riding it around base to get accustomed to it.

After I got comfortable — and a bit cocky about my riding abilities — I began venturing off base to test my riding skills in traffic. At that time, I hadn't notified my command of my purchase, nor told any of my leadership I was riding the motorcycle on and off base. Also, I had no idea what personal protective equipment was at that time. Months went by and I was still riding and carrying on without being concerned about safety precautions. Sometimes I rode very fast and reckless, while other times I just cautiously cruised the beach and other areas.

One Sunday, I was riding back to the base after cruising all day. I was tired, so I wasn't speeding or riding recklessly. I was on Interstate 5, headed back to the base and exited onto the Pacific Highway. I was in the number one lane with a city bus about 15 feet ahead of me and a Cadillac following me. Suddenly, a white Volkswagen driven by a woman with a cellphone resting on her shoulder started merging into my lane. Unable to accelerate because of the bus in front of me or slow down because of the car behind, I beeped my horn. She didn't hear me, so I

LIFE LINK

What does it take to protect you on the highway and keep you squared away with Army riding safety requirements? Go online to https://safety.army.mil/povmotorcyclesafety to dive into a rich resource of valuable, life-saving information.

moved as far left in the lane as I could. However, she crept closer to me and got so close that her side-view mirror was almost touching my hand. I hit her window and she swerved toward me, pinching me and my bike between the guardrail and her driver-side door.

My left leg was jammed against the guardrail and I could feel my skin burning from the friction. I hit her window again, this time shattering it. She responded by swerving to the right and accelerating away. Now I was in serious trouble. My front tire shook so badly I could barely control my bike. I panicked and down shifted into second gear as I saw the road was about to curve to the right, driving me even harder into the guardrail. I prayed the driver behind me was paying attention because I knew I'd have to get off the bike before it rolled. I hit the throttle, raising the bike's front enough for me to fall onto the freeway before the curve. When the bike came down, it rolled several times and slid along the blacktop for what seemed like forever.

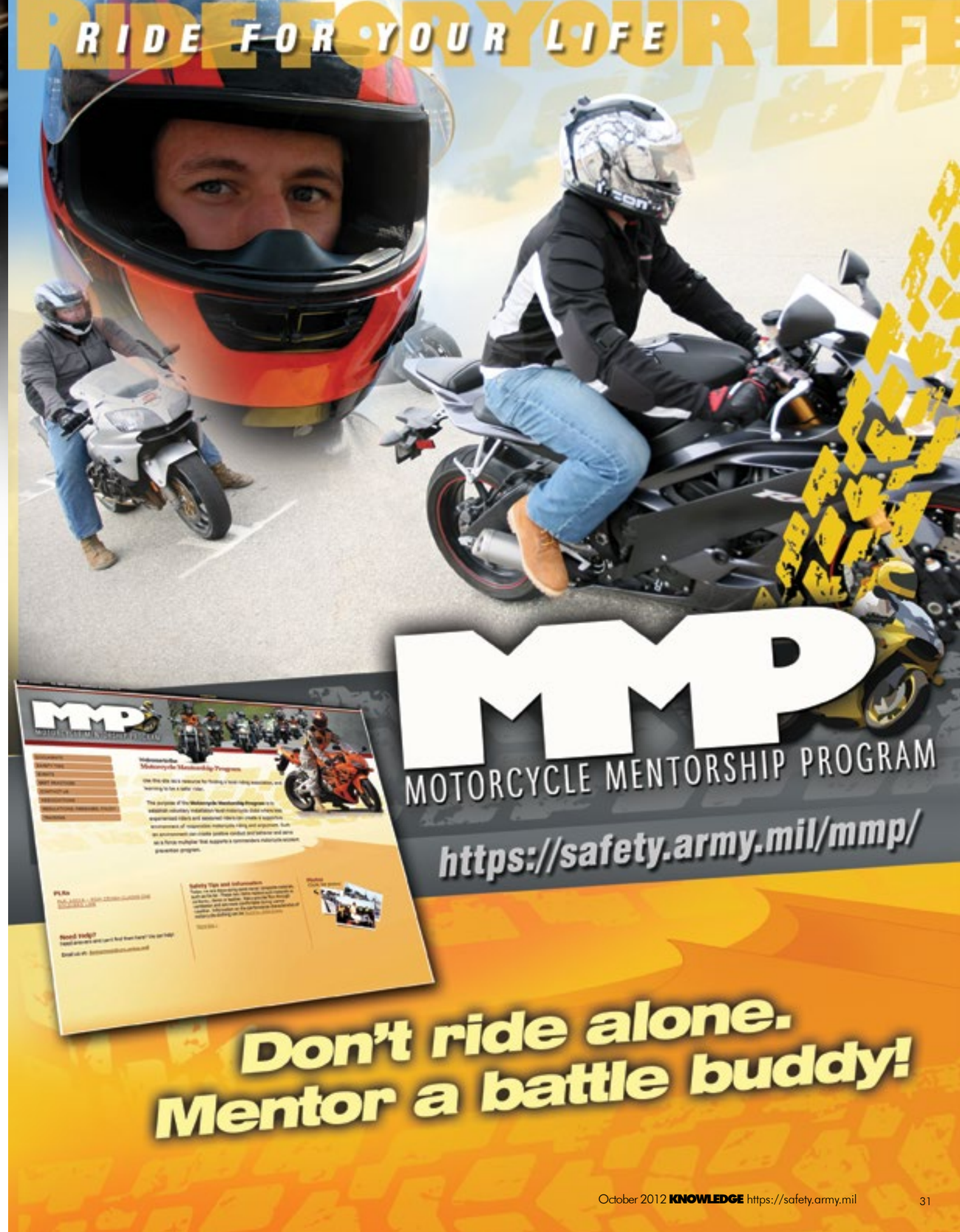
I had on a helmet and gloves and was wearing running shoes, a T-shirt and a warm-up suit. When I finally stopped sliding, I jumped up and began looking at my clothes, which were shredded. In shock, I just stood in the curve, ignoring the stopped traffic and blaring horns. The Volkswagen's driver never stopped.

After the highway patrol arrived at the accident scene, I was taken on base for medical treatment. Fortunately, nothing was broken but my pride. However, I did suffer road rash on my left forearm, left hip, lower left shin and my entire back. The following weeks were very painful as I recovered from my injuries.

I haven't ridden since that accident. I learned how dangerous riding a motorcycle can be even if you're not doing anything crazy. I also learned there is a price to pay for riders who teach themselves rather than getting proper training. The highway is an unforgiving place for the unprepared rider and not everyone gets a second chance. I'm fortunate to be alive and would encourage anyone wanting to ride to attend the Motorcycle Safety Foundation Basic *RiderCourse* before buying a bike. After all, if you can afford to invest in a motorcycle, you can afford to invest in the training to ride it safely.

YOUR THOUGHTS

The author was very open in describing his riding experiences. Having read the story, what would you have done differently as a beginning rider? How would you have handled a distracted driver trying to merge into your lane? Also, what are your thoughts about the difference what you wear makes in an accident? Do you have a story to share of how personal protective equipment helped you? If so, please email your comments to robert.vanelsberg@us.army.mil. Your story may well reach other Soldiers in a future issue of Knowledge.



FIGHTING FATIGUE

MICHAEL DAHLE
2nd Brigade Combat Team, 101st Airborne
Fort Campbell, Ky.

We were in Mosul, Iraq, with an OH-58D unit. The operational tempo was high due to recent activity in the area and the need for constant air support. This weighed heavily on our maintenance crews that were working 12 to 14 hours a day without time off for weeks on end.

We had moved to Mosul from another post a few months prior and set up operations at the south end of the airfield. After being there for a month or so, we moved again farther up the airfield to be on concrete and have a more stable area to work on the helicopters. We also set up two small clamshell hangers to conduct our maintenance.

We kept up our missions and the maintenance schedules for the helicopters during the high operational rate. A few aviation safety action messages came down through the production control office regarding the helicopters. We changed out the tail booms on most of the fleet because of cracking near the tail rotor gearbox. This strained the aviation maintenance shops and armament section.

During this time, we had a crew chief working on a helicopter. He was trying to chase down a transmission leak that only showed up when the aircraft engine was running. After shutdown, the air movement and oil viscosity made it impossible to locate the leak. This was compounded by the fact there were several lines in this area that carried the same or similar fluids.

The crew chief would look into the cowling while the pilot ran the engine at normal operating speeds and see the leak coming from the top of the transmission. A Soldier climbed up the side of the aircraft to see if he could see the leak. Thinking he'd spotted it, he leaned in and accidentally put his head into the rotating pitch control rods. The rods struck his head, knocking him off the aircraft. The force cut the Soldier from his brow to the back of his head. In most cases, victims are decapitated in this type of incident, but this Soldier was lucky. He was knocked unconscious and bleeding, but still alive. He was transported to the medical facility located on the airfield and, once he was stabilized, sent to Germany for further evaluation. After several weeks in Germany, the Soldier returned to theater to complete the tour with the unit. The lack of adequate rest, coupled with the high operations tempo at night, contributed to this accident.

Lessons Learned

During a rotation, you need to keep current on leave cycles, as this will tend to overburden maintenance crews while they cover down for a missing man in a flight company. Night operations are always more dangerous than daytime operations. Noncommissioned officers need to know their Soldiers and, if possible, have two troops present during regular maintenance operations to stop someone who is fatigued from suffering an accident. Leadership needs to stay involved with their Soldiers so they can recognize when they are fatigued or just having a bad day. "Be, Know, Do" is a critical part of keeping Soldiers safe.

Up in Smoke

JEANNETTE EMMANUELLI
Installation Safety Office
Aberdeen Proving Ground, Md.

Every October, fire officials and safety professionals observe National Fire Prevention Week in an effort to encourage folks to gain a greater understanding of fire's potentially devastating impact. According to the National Fire Protection Association, in 2010, U.S. fire departments responded to 369,500 home structure fires. These fires caused 13,350 injuries, 2,640 deaths and $6.9 billion in direct damage.

Smoke alarms are one of the best safety devices you can buy and install to protect yourself, your family and your home. Studies show that smoke alarms save more lives than any other fire prevention measure. Industry experts at the NFPA have determined that in a typical home fire, you only have three minutes to escape. Smoke alarms provide the earliest warning of both fire and smoke. They give you time to leave the building before your escape route is blocked by deadly smoke, heat and toxic gases.

The U.S. Fire Administration reports that the brands of smoke alarms available on the market fall under two basic types: ionization and photoelectric. Ionization alarms sound more quickly when a flaming, fast-moving fire occurs. Photoelectric alarms are quicker at sensing smoldering, smoky fires. Additionally, dual-sensor smoke alarms combine ionization and photoelectric sensors into one unit.

The USFA recommends every residence and place where people sleep be equipped with both ionization and photoelectric smoke alarms or a dual-sensor alarm. In addition to the basic types of alarms, there are models available to meet the needs of people with hearing disabilities. These alarms may use strobe lights that flash and/or vibrate to assist in alerting those who are unable to hear standard smoke alarms.

Most alarms installed today have a life span of about eight to 10 years. It's a good idea to write the date of purchase with a marker on the inside of your alarm so you will know when to replace it. Always follow the manufacturer's instructions for replacement. Some smoke alarms are hard-wired, which means they connect to a household's electrical system and may or may not have battery backup. A qualified electrician should install these alarms. It's important to test all smoke alarms monthly and replace their batteries at least once a year.

Everyone in your household should know what to do in the event of a fire. Normal exits may be blocked by smoke, heat or fire, so always plan two exits from every room and make sure Family members know all escape routes. Choose a meeting place outside your residence so you will know everyone has escaped. It's critical to practice escape plans before a real emergency.

If there's a need for immediate escape, don't waste time trying to fight the fire or stop to call the fire department on your way out. Get out immediately and call 911 from a neighbor's phone or from another safe location. Every second counts, so don't delay. You may end up paying with your life!

FYI

This year's Fire Prevention Week campaign runs Oct. 7-13. To learn more about preventing fire tragedies, visit www.firepreventionweek.org.

READY TO RUMBLE

JAMES L. JACKSON
U.S. Army Corps of Engineers
Savannah, Ga.

Are you ready to rumble? In the old days, that meant getting into a street fight. How about today? Are you ready for the rumble strip on the side of the highway? Are you ready for that kind of street fight?

It was late on the Friday afternoon of what had been a long, stressful week, and I was facing a 5½-hour drive to get home. I'd just spent five weeks on a temporary duty assignment and was eager to see my family. Tired as I was, I'd done the trip before and was willing to put myself through the paces once more to see my wife and daughter.

The trip started off without a hitch. I'd already packed, completed my Travel Risk Planning System report and was ready to go. I'd "fudged" a bit about resting six to eight hours between working and driving. All I could think of that afternoon was spending precious moments with my family. I missed them so much and wanted to create positive memories with my daughter. That alone was incentive enough to get there as soon as possible. I didn't consider the consequences of driving fatigued. I never thought how selfish I was to put myself and others in danger on the road. Research shows that 24 hours of sleep deprivation impairs someone as if they had a blood alcohol concentration of .08. That'll get you arrested for driving drunk in most states.

I was traveling down a four-lane highway that night in the rural South. I stopped to get a bite to eat at a fast food restaurant and then got back on the road. I regretted that move but, more importantly, I regretted feeling so fatigued when I was only halfway home. I tried moving my head from side to side to fight the drowsiness. I then tried looking at the mile marker signs, near and far, until they went by in a blur. I remember counting mile markers 15, 16 and 20. I saw mile marker 26 and then it happened — I fell asleep only to be suddenly shocked back into alertness by the unmistakable roaring of the rumble strip as I drifted off the right shoulder.

That snapped me back into reality and I slowed down and pulled off at the nearest exit and got three hours of sleep. When I started my journey again, I was thankful all I'd received was a scare, not a trip to the emergency room. When the reality of what happened sunk in, I realized I could've broken my wife's and daughter's hearts. I also could've hit another motorist and brought suffering to them or grief to their family. I've often wondered since then how many people chance it every day by driving mentally fatigued. I think of families being shattered by a call telling them a loved one is dead due to their own negligence or another driver's.

Soldiers go through a lot and endure many difficulties. However, the most consistently preventable tragedy that takes Soldiers' lives doesn't happen in combat, it happens on the highways at home. And it's not just Soldiers. Army Civilians are also being lost, and replacing their skill sets takes time and costs money. In addition, losing them also decreases unit readiness and cohesiveness and can affect morale. While drugs and alcohol play a major role in many of these tragedies, so does fatigue.

Getting ready to travel? Don't fudge it on your TRiPS report just because you're in a hurry to get somewhere. Time saved isn't worth a life lost. Before heading out, ask yourself if you're alert, awake and ready to roll. And if you're not — are you ready to rumble?

WARNING SIGNS AND SAFETY TIPS

The National Safety Council offers the following suggestions to keep you alert and alive on the highway:

Recognize the symptoms of fatigue

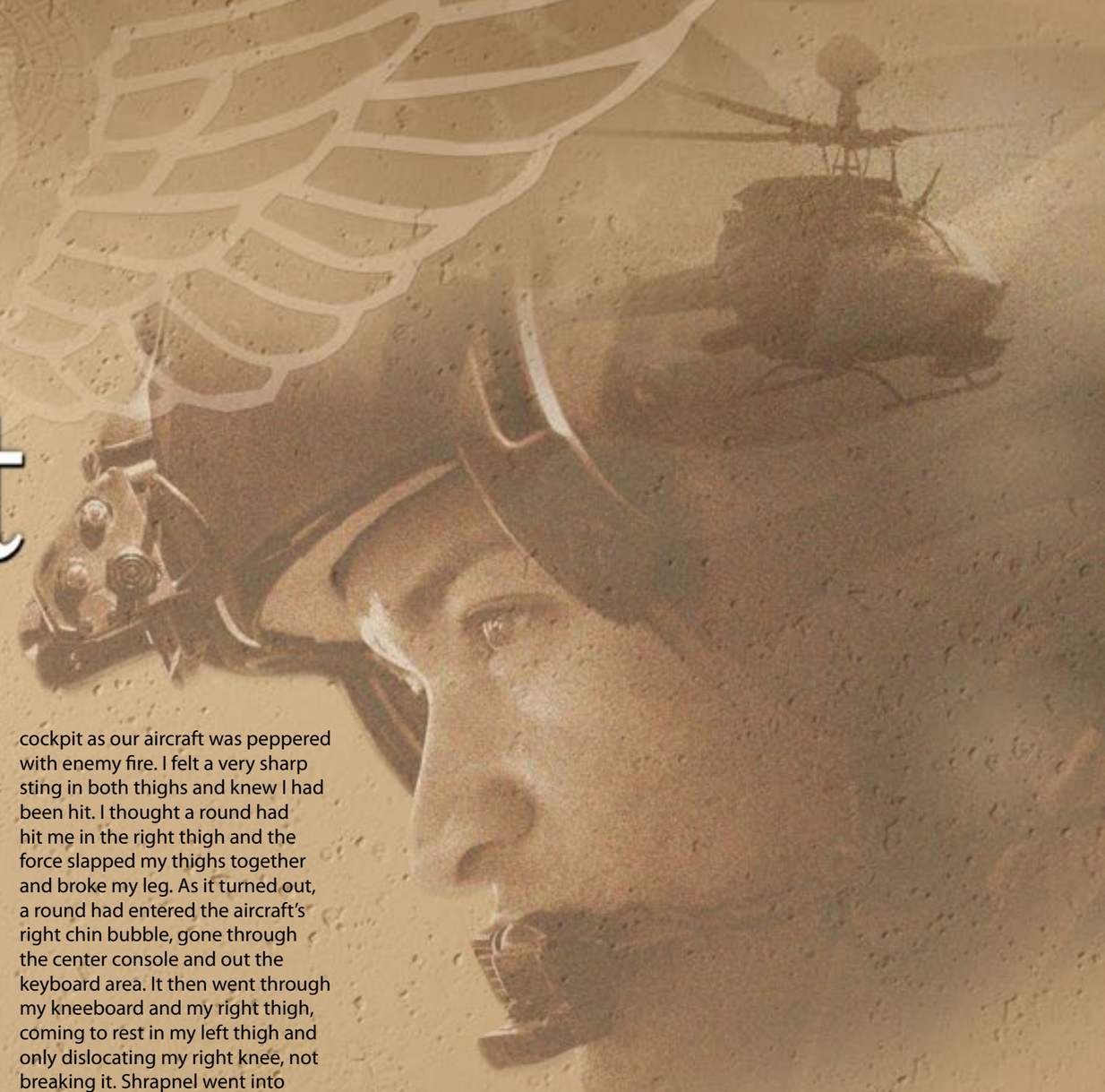
- Eyes closing or going out of focus
- Persistent yawning
- Irritability, restlessness and impatience
- Wandering or disconnected thoughts
- Inability to remember driving the last few miles
- Drifting between lanes or onto the shoulder
- Abnormal speed, tailgating or failure to obey traffic signs
- Back tension, burning eyes, shallow breathing or inattentiveness

Safety Tips

- Maintain a regular sleep schedule that allows adequate rest.
- When the signs of fatigue begin to show, get off the road. Take a short nap in a well-lit area. Do not simply stop on the side of the road.
- Avoid driving between midnight and 6 a.m.
- When planning long trips:
  - Share driving responsibilities with a companion.
  - Begin the trip early in the day.
  - Keep the temperature cool in the car.
  - Stop every 100 miles or two hours to get out of the car and walk around; exercise helps to combat fatigue.
  - Stop for light meals and snacks.
  - Drive with your head up, shoulders back and legs flexed at about a 45-degree angle.

the Right-Now Moment

CHIEF WARRANT OFFICER 3 GABRIEL TORNEY
TRADOC Capabilities Manager for Reconnaissance/Attack
Fort Rucker, Ala.



Professional football hall of famer Darrell Green said you have to be prepared for what he called the "right-now moment." That's when they say, "What's your name? OK, you're up right now!" At that point, you have to be ready to perform. The Army has a long history of Soldiers being called upon to perform in that right-now moment. That's why it is important that leaders spend a lot of time and effort preparing their Soldiers for that moment.

In 2005, then-Col. H.R. McMaster devised a new counterinsurgency strategy with the 3rd Armored Cavalry Regiment in Tal Afar, Iraq. As this plan was unfolding, an enemy sniper had attacked for four days in a row and we hadn't found him yet. At 4 p.m., we began our quick-reaction force shift of two Kiowa Warriors and a call came on the radio for troop medical evacuation as the enemy sniper had launched his daily attack. Five minutes later, we picked up to a hover and launched to pull landing zone security for the medevac crew.

In the battle handover, the team of Kiowas coming off station told us they had spotted the sniper and gave us a building number. Unfortunately, the city was so densely packed that a number could often identify several buildings. As the medevac flight departed with its patient, the air mission commander, Pegasus 26, informed the ground QRF at the LZ, as well as another ground QRF, of the enemy's location.

The two crews in our team normally swapped seats and crewmembers every other day. That day, I was in the left seat, flying with Chief Warrant Officer 2 Dennis Hay (an instructor pilot). From outside the city, I watched in the sight as the QRFs surrounded and converged on the building with M1 Abrams tanks and M3 Bradley fighting vehicles. Earlier, while taking the controls, I noticed Dennis flew with some friction on the cyclic and asked him why. I had always preferred it completely loose. He demonstrated how I would have time to grab the controls if he were incapacitated. This later proved to be vital.

After returning from refuel, we discovered the QRF had actually captured the sniper alive and was about to begin exfiltration. This was when they were at their most vulnerable, and we could no longer provide the proper security from our positions outside the city. For us to provide security, we would have to fly low and fast very close to the objective.

I fixed the sight forward and grabbed my M4 carbine off the dash. It was summer and we flew with the doors off, as did all the Kiowas. The idea was to act as a deterrent by applying at least suppressive fire to any threat to our forces, giving them time to exfill. On the third and final pass, I heard what sounded like popcorn popping loudly in the cockpit as our aircraft was peppered with enemy fire. I felt a very sharp sting in both thighs and knew I had been hit. I thought a round had hit me in the right thigh and the force slapped my thighs together and broke my leg. As it turned out, a round had entered the aircraft's right chin bubble, gone through the center console and out the keyboard area. It then went through my kneeboard and my right thigh, coming to rest in my left thigh and only dislocating my right knee, not breaking it. Shrapnel went into my right arm, which, fortunately, largely shielded my face and eyes.

As the aircraft pitched up, I thought Dennis was preparing for a close combat attack, but that didn't make sense. I looked at him and saw him hunched over, clearly not on the controls. A round had come right through the windscreen and hit Dennis in the head, rendering him immediately unconscious and mortally wounding him.

The OH-58D does not have an automatic flight control system and our stability control augmentation system was knocked out by one of the enemy rounds. With or without SCAS, a Kiowa Warrior immediately stops flying when no one is on the controls. At this point, the aircraft's nose had pitched up nearly 90 degrees. I was convinced the situation was unrecoverable when I found myself on the controls and in a dive with no idea how I got there. The friction on the cyclic had given me just enough time to assume the controls and regain control of the aircraft. My thought was to get as much power in as I could since much of my airspeed had bled off. I flew as low as I could in an attempt to break contact.

The high-rotor audio warning went off. However, when I looked at the screen, I saw both "HIGH ROTOR" and "LOW ROTOR" warning messages. Something was clearly wrong with the messages. The aircraft was very

squirrelly, especially in the yaw, but seemed to be flying OK otherwise. Then the "ENG OUT" message appeared with the associated audio warning. My first thought was that even if I did a perfect autorotation, we would not survive. (Little did I know another Kiowa crew had accomplished a successful recovery in the same city one year earlier.)

In flight school, we memorize the seven indications of an engine failure and that we need to verify that failure with at least one other indication. However, the most important indication of an engine failure in a single-engine aircraft is also the most obvious. During a simulated engine failure in a KW, your first indication is your stomach in your throat. That happens before even the aircraft recognizes it has had an engine failure. The eighth indication is that sudden sinking sensation when the engine malfunctions and completely loses power. But the aircraft kept flying, so I ignored the warnings. If you take nothing else away from this incident, remember this — if the aircraft keeps flying, you keep flying!

I saw that lead had made it out of the city and figured if they could do it, so could I. I got on the radio and said, "We're going down, we're going down, we're going down! Dennis is unconscious." And my next words are forever burned into my memory, "Medevac, medevac, medevac!"

Dragon Company was a tank company positioned on the route north of town. After exiting the city, I made a sharp left turn, knowing if I could put those tanks between my aircraft and the city, we would be OK. As soon as I saw the first Abrams, I picked out a landing site behind the tank and made straight for it.

I could hear the AMC again redirecting the ground QRF and calling medevac to where I was landing saying, "COP Renegade!" I actually hadn't planned on this and didn't think about it until I heard him say it, but this was a brilliant idea. If I just extend my approach about 50 feet, I'll still have the protection of the tanks and I'd be inside COP Renegade's berm, which was a preplanned medevac LZ.

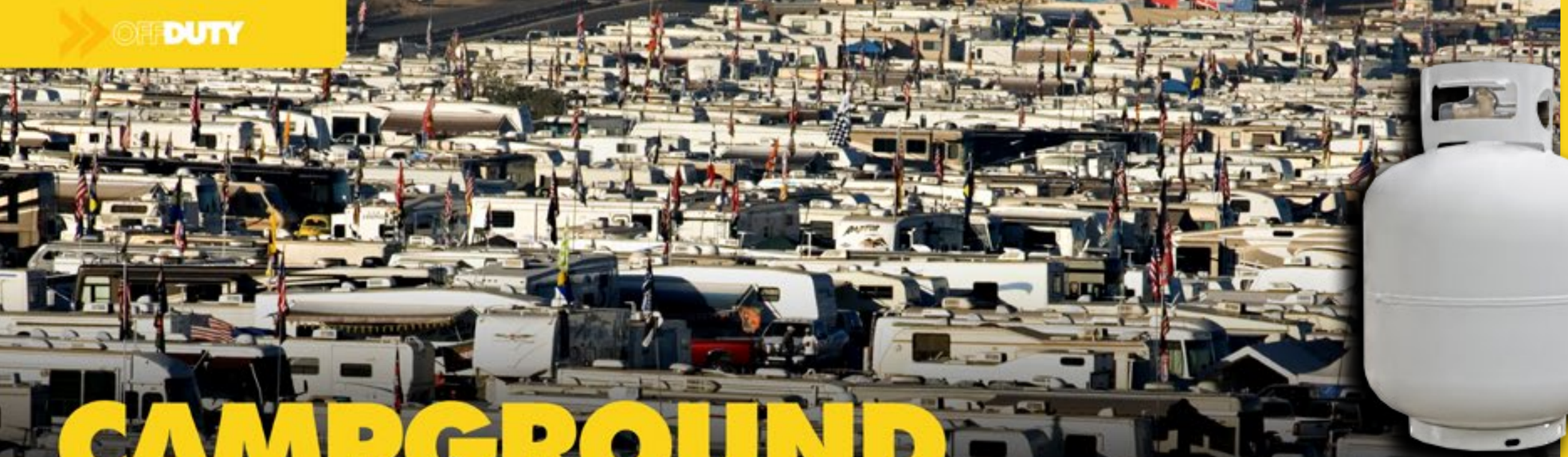
The audio warnings never stopped. As I descended, I swear every time I looked at the screen a new warning popped up. I honestly thought at the time that if I stopped looking at the screen, maybe the warnings would quit. But it didn't matter. Nothing was going to stop me from landing at COP Renegade. I put the aircraft on the ground and rolled the throttle to idle. I considered taking off again in hopes of getting Dennis back to the FOB faster than medevac could get here, but there were three very important factors that needed to be considered. First, Dennis was quickly losing blood and needed immediate treatment. Would he bleed out before I even got to the FOB? Second, I didn't know the actual condition of my aircraft. Would it even make it to the FOB? And third, I had just been shot and didn't know the extent of my own injuries. Would I pass out on the way to the FOB? The fact was that this location had security, a means to administer first aid and medevac had already been already alerted.

I turned on the force trim, rolled the throttle off and left the battery on. The battery maintained power to the force trim while the blades were spinning and I exited the aircraft and tried to get Dennis out with the help of the AMC's left-seater. As the medevac from the Maryland National Guard arrived, I could see and hear as they took fire as our security attempted to suppress it.

Despite the damage to the aircraft and the danger to the medevac crew, they still landed at COP Renegade to get us out. When we returned in the damaged medevac to our FOB, every flight surgeon met us the second we landed. They did everything imaginable to save Dennis' life and then some, but his injuries were too great. I was moved to another aircraft and taken to the combat support hospital while they continued to work on Dennis. Later that night, a downed aircraft recovery team was sent to our aircraft and performed the necessary battle damage assessment and repair. The troop standardization pilot and a senior maintenance test pilot flew the aircraft back to the FOB.

In the end, the counterinsurgency was a resounding success and the mayor of Tal Afar visited Fort Carson, Colo., to thank the regiment. My aircraft was repaired and returned to the fight in a matter of weeks. For me, however, it took a little longer.

Editor's note: For his actions to land his aircraft safely, Chief Warrant Officer 3 Gabriel Torney was presented with the Broken Wing Award. The Broken Wing Award recognizes aircrew members who demonstrate a high degree of professional skill while recovering from an in-flight failure or malfunction requiring an emergency landing.



CAMPGROUND COMPLACENCY

KEN MATHIS JR.
G7
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

The hot, humid days of summer are slowly giving way to the cool, breezy days of fall, signaling that football season is once again upon us. And if the seasonal changes aren't a dead giveaway, we can certainly tell something is in the air as sports fans proudly display their team's colors on their vehicles and houses. Not to be outdone, the long NASCAR season has worked fans into a frenzy, and we have only a handful of races to go. So what do football and racing have in common? Good times, for Pete's sake! And by good times, I'm talking about tailgating and camping with family and friends. Throw some meat on the heat, crack open a cold brew and relax. Oh yeah, this is living.

It was Labor Day weekend, and I had settled into my campsite at the Atlanta Motor Speedway. As I looked around at the other NASCAR enthusiasts, everything seemed normal — meaning everyone was drinking, smoking, grilling and carrying on. After all, that is what goes on during a race weekend, isn't it?

While making my rounds through the campsite, something alarming caught my eye. A group of spectators was staring at the charred remains of an RV. Heat from the exhaust of a generator attached to the back of the RV lit it on fire. I wondered how in the world it happened.

Let's assess the situation. Most NASCAR tracks have campsites available that require you to "dry" camp. In essence, this means you have what you bring with you. Utilities such as water, sewer and electric are not available unless you bring your own. So how do campers power a travel trailer or tent — with a generator, of course. And keeping that generator running for hours on end requires plenty of fuel, either diesel or gasoline. Around these campsites, there's always a surplus of fuel around, usually in excess of 20-plus gallons per site.

Depending on the race and its venue, some people arrive a week in advance and begin camping, while others might camp for the weekend or only for a night. Campers usually store their surplus fuel in portable containers on the ground next to their generators. And don't forget about propane. In addition to grilling, travel trailers and RVs use propane to operate refrigerators and hot water heaters when the generator is off. Usually there's a spare tank or two of propane lying around the campsite too. As you can imagine, there is a lot of fuel and gas scattered across a campground. By the way, did I mention that this particular campsite was in a 75-acre grass field with thousands of other campers also dry camping? Starting to get the picture? You are camped in the middle of the traditional fire triangle — fuel, heat and oxygen. The point I'm trying to make is this: Something that might appear harmless could actually be a powder keg just waiting for the fuse to be lit.

So, the next time you travel to a sporting event and camp for a few nights, have a great time but remain vigilant. Not everyone has your training or keen sense of awareness. Pay attention to where fuel is stored and ensure it's shielded from any possible source of ignition such as the exhaust of a generator, sparks from a campfire or ashes from that stogie you're chomping on.

It only takes a spark to get a fire going. Who wants to be responsible for starting a fire? Or worse, who wants to lose their life to a preventable accident? Fortunately, the campers around the charred RV were lucky … this time.

SMALL PROPANE CYLINDER SAFETY

- **Inspect the propane cylinder for cuts, gouges, dents and rusting and replace, if necessary.**
- **Check hose connections for leaks by brushing a 50-50 mixture of liquid dish soap and water onto all hose connections and valves. Bubbles indicate a leak.**
- **Always transport and store propane cylinders in an upright, vertical position so the safety release valve will function properly.**
- **Never store propane tanks indoors or near any heat source.**
- **When transporting a propane cylinder in a vehicle, ensure the cylinder valve is tightly closed; install the threaded plug or cap on the valve outlet of the tank; secure the tank in an upright, vertical position in the passenger compartment of your vehicle; open all vehicle windows for ventilation; and refrain from smoking during transportation. If transporting a propane cylinder in the trunk of a vehicle, ensure that it's well secured in an upright, vertical position and the trunk lid is left open for ventilation until your return home.**
- **Remove the tank from the vehicle immediately upon your return home — heat build-up in a sealed vehicle may cause an explosion.**

Source: Windsor Fire & Rescue Services, Ontario, Canada.

LOST

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, email safe.knowledge@conus.army.mil.

AVIATION

AH-6M

CLASS C

- The aircraft experienced a rotor overspeed condition (114.1 percent) during ground maintenance run-up (FADEC-MANUAL).

OH-58D(R)

CLASS A

- A chip light illuminated and the crew was required to autorotate while en route to the forward operating base. Upon ground contact, the aircraft overturned onto its left side. Both pilots suffered injuries requiring hospitalization, and the aircraft was destroyed.

UAS

RQ-7B

CLASS C

- The unmanned aircraft experienced an engine failure during a training iteration. The recovery chute was deployed and the UA recovered with damage.

GROUND

Personnel Injury

CLASS A

- A Soldier died after he fell from the balcony of his barracks.
- A Soldier was killed after being struck in the head by a round from a privately owned weapon. The Soldier, who was at another Soldier's residence, was attempting to manipulate the weapon's mounted light during a power outage when the accident occurred.
- A Department of the Army Civilian was killed and three others injured after being struck by a railcar while conducting track repairs.

CLASS C

- A Soldier was injured after firing a round into his calf while cleaning his privately owned weapon. The Soldier pulled the trigger while attempting to remove the slide.

DRIVING

POV

CLASS A

- A Soldier was killed and another seriously injured when their vehicle struck an embankment and overturned. Both Soldiers were wearing their seat belts.
- A Soldier died when he attempted to pass a vehicle and went off the left side of the road and struck a tree. The Soldier wasn't wearing his seat belt.

LOSSES AVIATION — FISCAL 2012 Class A/Fatalities thru July 2012

ATTACK	3/0
RECON	2/4
UTILITY	6/6
CARGO	3/0
TRAINING	0/0
FIXED-WING	1/0
UAS	6/0
TOTAL	22/10

as of Aug. 05, 2012

LOSSES GROUND — FISCAL 2012 Class A/Fatalities thru July 2012

AMV	12/11
ACV	6/4
PERSONNEL INJURY (includes weapons-handling accidents)	21/15
FIRE/ EXPLOSIVE	2/2
PROPERTY DAMAGE	2/2
TOTAL	43/32

as of Aug. 05, 2012

POM

CLASS A

- A Soldier was killed the day after buying a new sport bike when he lost control at high speed, failed to negotiate a curve and crashed.
- A Soldier died after he drifted into the oncoming lanes and collided head-on with an approaching vehicle.

CLASS C

- A Soldier was injured when a vehicle failed to yield right of way and turned left into his path.
- A Soldier was thrown from his bike and injured when he lost control in a curve, left the road and struck a ditch.

CLASS D

- Two Soldiers were riding through a turn when the leading Soldier overcorrected and crossed into the trailing Soldier's path. The trailing Soldier then lost control and crashed, suffering a broken arm.

LOSSES POV/POM — FISCAL 2012 Class A/Fatalities thru July 2012

CAR	34/34
SUV/JEEP	7/6
TRUCK	2/2
MOTORCYCLE	42/39
PEDESTRIAN	5/5
OTHER* (*Includes vans, ATVs, snowmobiles and bicycles)	1/0
TOTAL	91/86

as of Aug. 05, 2012

Fiscal Year 2011: 89 — Three Year Average: 87

The discipline to verify the safe condition of hunting gear ...

YOU have it, but does your battle buddy?

*The signs are all around - It's up **YOU** to recognize and act on them.*

KNOW WHAT'S RIGHT

know the signs

DO WHAT'S RIGHT

U.S. ARMY
ARMY STRONG.

U.S. ARMY COMBAT READINESS/SAFETY CENTER
https://safety.army.mil

scan here for more information

Family engagement Kit

https://safety.army.mil

On the home front, a Soldier's "battle buddy" is often his or her Family. Check out the new Family Engagement Kit to learn how you can look out for the safety of your Soldier. The kit features a variety of tools, including videos, real-life stories, resources and tips to keep your Soldier safe.

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ARMY SAFE IS ARMY STRONG

HOLIDAY HAZARDS: KEEPING THE SEASON SAFE

KNOWLEDGE

VOL 6 NOVEMBER 2012

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

OUT IN THE COLD

- PREFLIGHT CHECKS
- FOODBORNE ILLNESS
- MOTORCYCLE VS. DEER

CREW COORDINATION

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SCAN HERE FOR KNOWLEDGE ONLINE

COMMANDERS AND SAFETY OFFICERS!

Deploying? Already Deployed?

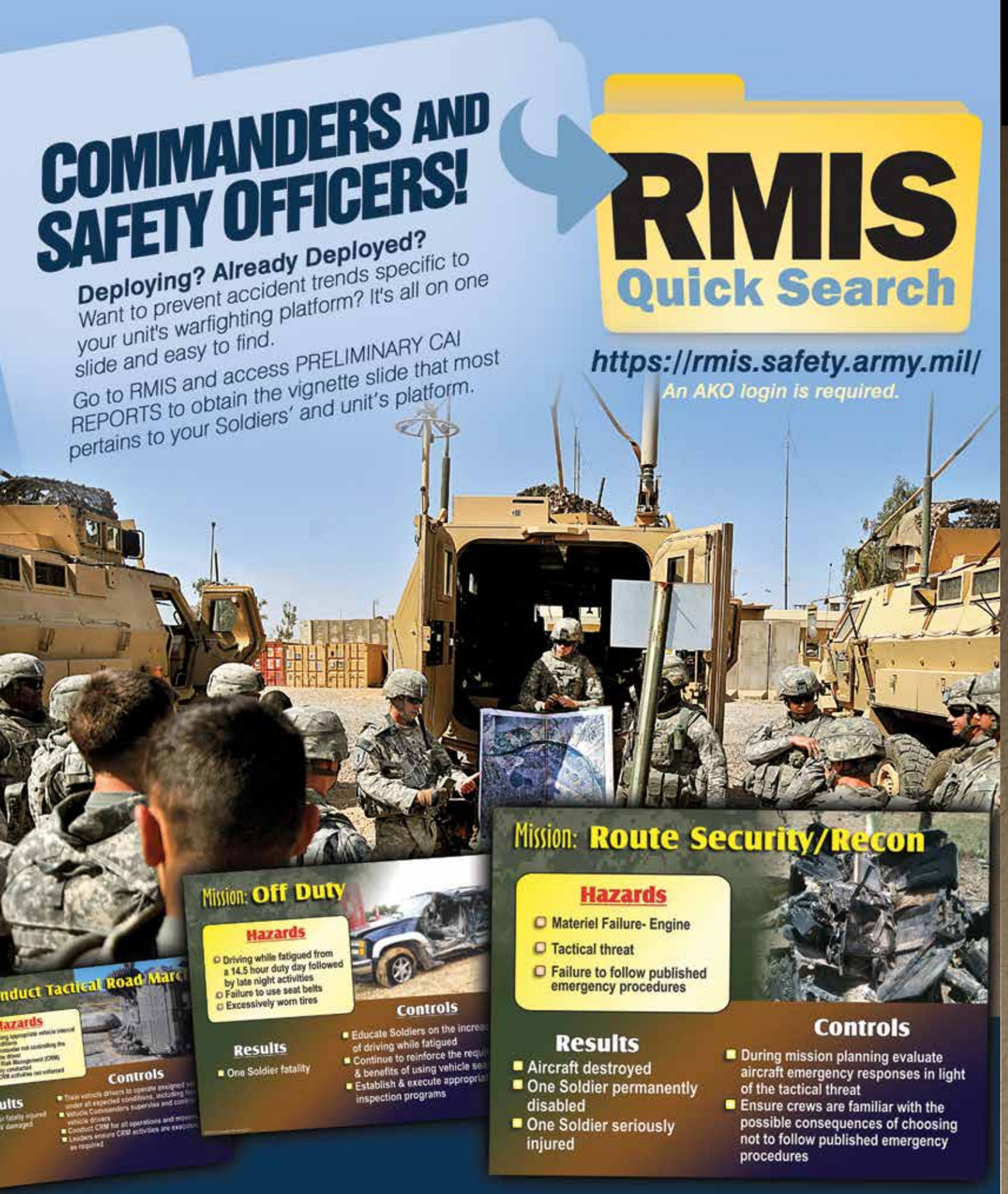
Want to prevent accident trends specific to your unit's warfighting platform? It's all on one slide and easy to find.

Go to RMIS and access PRELIMINARY CAI REPORTS to obtain the vignette slide that most pertains to your Soldiers' and unit's platform.

RMIS Quick Search

https://rmis.safety.army.mil/

An AKO login is required.



KNOWLEDGE

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

LEADERS SOLDIERS CIVILIANS FAMILIES

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Mission statement: The United States Army Combat Readiness/Safety Center (USACR/Safety Center) supports our Army by collecting, analyzing and communicating actionable information to assist Leaders, Soldiers, Families and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please email comments to **safe.knowledge@conus.army.mil**.

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> In **STAND DOWNS** and weekend safety briefings, we should be **SETTING THE EXPECTATION** that Soldiers **LOOK OUT** for **ONE ANOTHER** just as fiercely at **HOME** as they do in the **FIGHT**.

GIVING OUR BEST EFFORT

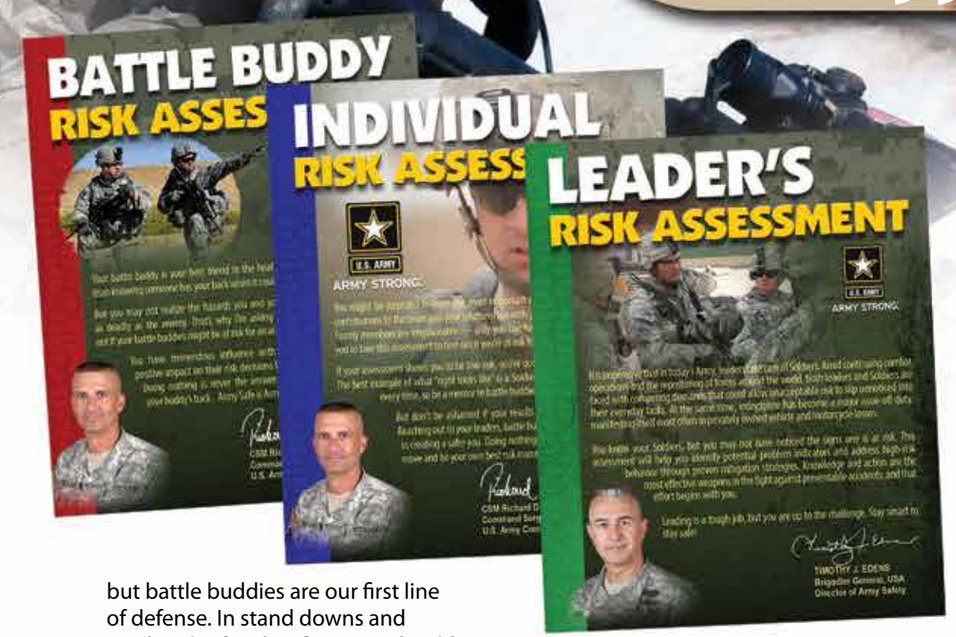
There's an old saying in the Army that goes something like this: "The Navy is about boats, the Air Force is about planes, but the Army is about people." That statement doesn't give our sister services credit for caring for their troops, which they absolutely do, but it illustrates a point. The essence of our Army is the American Soldier, and that's why we work so hard to protect our men and women from unnecessary risk, whatever it may be. And, after losing 455 Soldiers to suicide or accidents during 2011, it's more important than ever that we stay engaged in the fight against preventable loss.

Recently, we took a day to stand down for suicide awareness and prevention. I've rarely been in training that generated such somber and sincere discussion, and that's especially important given this growing problem facing our Soldiers and their Families. But, I wonder, couldn't we make our safety stand downs just as somber and impactful? Let's not appear to take suicide more seriously than accidental fatalities — the end result of both is the loss of an irreplaceable Soldier.

I'm not downplaying the urgency of suicide in any way; it is without doubt one of the biggest issues facing our Army today. What I'm asking is that we all treat accidents and their losses with urgency as well, and acknowledge that stopping them requires the same attention and commitment we've seen from our force in combating suicide. In many ways, suicides and accidents are linked, and we can confront these challenges at the same time.

Prevention of both tragedies is, I believe, fundamentally a function of engaged leadership and the battle buddy system. Think about the Soldiers who could be at risk within your formations. The one going through personal or financial problems might not be considering suicide yet, but may not think twice about taking his aggression out on the road in his POV or on his motorcycle. The new Soldier who feels isolated among her peers might drink to excess to fit in with the crowd, exposing herself to a whole new level of risk on the drive or walk home. There's no end to the possible combinations of factors that put our Soldiers at risk, but your engaged leadership and mentorship has and can continue to create an environment where leaders and led alike identify risky behavior before it reaches disastrous and tragic outcomes.

Involved and caring leaders are an important part of prevention, but battle buddies are our first line of defense. In stand downs and weekend safety briefings, we should be setting the expectation that Soldiers look out for one another as fiercely at home as they do in the fight. The Army is no different than any other organization; just like at school, there are always cliques of Soldiers who hang together on and off duty. Get to know these groups; the "unofficial" leader is usually pretty easy to figure out, so engage him or her first for battle buddy mentoring. Peers have amazing influence on one another, and we must tap into it.



The USACR/Safety Center has several tools that can assist you and your Soldiers in identifying those at risk. The Leader, Battle Buddy, and Individual Risk Assessment Cards, available at https://safety.army.mil, are similar to the ACE cards our Soldiers carry for suicide prevention. A series of questions, mitigation measures and professional resources provide users with the information they need to stay safe and get help, if needed. The cards are formatted on our site for easy reproduction — all you have to do is hit "print" and distribute among your individual units.

As we close this year and move into the next, I want to thank you for your commitment to safety, which resulted in fewer accidental losses during fiscal 2012 than previous years. I want us to stay sharp, look ahead and consider how we can continue moving in the right direction this coming year. We must remain ever vigilant against the mindset that accidents "just happen"; in reality, they are often preventable. If we were to all treat safety with the same urgency that we do and ought to give suicide, I have no doubt our accident rates will continue to decline. Our Soldiers are our Army, and we owe them our very best efforts!

Army Safe is Army Strong!

TIMOTHY J. EDENS
Brigadier General, USA
Director of Army Safety

Forecast for 'Light Snow,'

CHIEF WARRANT OFFICER 2 JOSEPH DESCHNER
National Training Center
Fort Irwin, Calif.

It was the week I took my pilot-in-command ride in Korea. I was stationed at Camp Humphreys with C Company, 3rd Battalion, 2nd Aviation Regiment, General Support Aviation Battalion (MEDEVAC). It was December and I was tasked to fly to Camp Casey with a fairly new lieutenant. We were given four hours of flying time, so after returning, we still had more than an hour left for medic training.

We refueled and got an update on the weather from the Air Force meteorologist at Camp Humphreys. The METRO observer reported snow falling over the ocean, adding that in an hour and a half we would receive light snow that would pass over our area quickly. Heavier snow was forecast later in the afternoon, but we'd be back several hours before its arrival. Army Regulation 95-1 states in section 5-2, "destination weather must be forecast to be equal to, or greater than, VFR minimums at estimated time of arrival through 1 hour after ETA."

The forecast we'd received gave us legal weather for the last hour of our flight. We had several medics in the back needing to complete their live hoist qualifications, so we headed out to LZ Elbow, which was in the maintenance test valley, about a 10-minute flight south of Camp Humphreys.

Once at the LZ, we set down and let Sgt. Blass, our flight instructor, set up the 100-pound cement block to reseat the hoist. This procedure ensures the hoist's cable is wrapped tightly around the internal reel. Once ready, we hovered at 250 feet to begin the reseat procedure. That was when the snow started to fall. We completed the reseat, but now the snow was much heavier and we needed to land at the LZ.

This weather was much, much worse than METRO had given us 20 minutes prior. The visibility decreased to a one-quarter mile with a ceiling of less than 100 feet. Two mountain ranges separated us from METRO, so we couldn't pick up their signal unless we were in the traffic pattern. We tried unsuccessfully to call them on the radio. Since we could only reach them by calling on a cellphone, we took the aircraft to an idle at the LZ and called METRO. The observer who briefed us apologized for the rapid weather change and said the soonest we could leave and attempt to return to the airfield would be in 45 minutes. He also told us we'd have a large enough window to return to the runway, which was eight miles north of us. I spoke with the commander and let him know our situation. He gave us the approval to wait and return to station when the weather improved. After 45 minutes, visibility improved to a half mile with a 500-foot ceiling.

Before taking off, I asked the crew and they all agreed that they were comfortable returning to base at that time. The crew chief and I had logged 150 hours in the area and were very familiar with the return route. I went over the inadvertent instrument meteorological conditions plan again. I wanted to ensure if the ceiling dropped again and we were in an area where we couldn't set down, we would fully commit to the instrument landing system Runway 32 approach.

I turned on the windshield anti-ice to melt the falling snow. We also turned on the pitot heat and engine anti-ice, verifying they were working. The temperature was 6 F on the surface, which meant we'd encounter icing if approach control took us up to 3,200 feet, as per the published approach procedure. We advanced the power control levers and did our before-takeoff checks. We had six people in the aircraft and, according to our current conditions, had plenty of power if we needed to do an ILS approach.

I flew the return route by following the edge of a river that led from the LZ to a lake. Then we flew along the edge of the lake to Check Point 3, which was our inbound reporting point to the pattern. Chapter 6 of the aircrew training manual covers the aircrew coordination needed between crewmembers to safely, efficiently and effectively perform their tasks. Our crew always briefed the different aspects of aircrew coordination before taking off. As we returned, everyone stayed calm and concentrated on the task at hand.

We made it back to the runway safely, thanks to effective crew coordination. Everyone remained calm, fully thought through each situation and effectively communicated with each other. A flight that normally took 10 minutes took 50 instead, but ended successfully because the crew worked together effectively as a team.

After we landed, I went into the weather office, where the forecaster apologized profusely for giving an inaccurate brief. He said he hadn't predicted the cloud layer coming from the west to develop into a line and drop so much snow at lower levels. He realized his inaccurate forecast jeopardized our lives. I asked him to develop a way to contact us (my cell number was left on the flight plan) and to back up his forecast with one from a more experienced forecaster to avoid this happening again in the future.

> "He **REALIZED** his inaccurate **FORECAST JEOPARDIZED** our **LIVES.**"

HOW SAFE IS YOUR HOLIDAY FEAST?

SGT. 1ST CLASS DEB HIBBERT
111th Army Band
Pearl City, Hawaii

Who doesn't like to eat? OK, there may be a few people like my granddaughter, Sophia, but most of us enjoy eating. Holidays are the best because grandma makes all of your favorites, and Aunt Pat brings lots of goodies too. And don't forget the potluck buffets at the office (these are my favorite). But let's think about this: Aunt Pat has a three-hour drive to get to grandma's house, and I remember the boss talking about his refrigerator wasn't working properly. So how safe is that food we are about to consume?

Some of our most favorite holiday foods are potentially the most dangerous. We used to call it food poisoning, but now, according to the U.S. Department of Agriculture, when certain disease-causing bacteria or pathogens contaminate food, they can cause foodborne illness. How do you know if you have a foodborne illness? The symptoms are flu-like in nature and include nausea, vomiting, diarrhea and fever. A foodborne illness is serious and, if not treated, can be fatal. The USDA recommends having and using a four-step action plan in the event that you experience these symptoms:

1. Consult your physician or health care provider, or seek medical treatment as appropriate.
2. Preserve the food.
3. Save all the packaging materials, such as cans or cartons.
4. Call your local health department if you believe you became ill from food you ate in a restaurant or other food establishment.

According to the USDA, the major pathogens that cause foodborne illness include Salmonella, Listeria monocytogenes, Campylobacter jejuni and Escherichia coli (E. coli). The following are some foods and symptoms that are associated with these illnesses:

Salmonella

- Raw or undercooked eggs, poultry and meat
- Unpasteurized milk or juice
- Cheese and seafood
- Contaminated fresh fruits and vegetables

Symptoms of Salmonella include stomach pain, diarrhea, nausea, chills, fever and/or headache. These symptoms appear within eight to 72 hours after eating and may last four to seven days.

Listeria Monocytogenes

- Contaminated hot dogs, luncheon meats, cold cuts and other deli-style meat and poultry
- Soft cheeses and unpasteurized milk
- Store-made salads such as ham salad, chicken salad or seafood salad

Symptoms include fever, chills, headache, backache, upset stomach, abdominal pain and diarrhea. This foodborne illness is extremely dangerous for individuals with weakened immune systems and pregnant women. It may take up to three weeks to become ill.

Campylobacter Jejuni

- Contaminated water
- Unpasteurized milk
- Raw or undercooked meat, poultry or shellfish

Symptoms include fever, headache, muscle pain followed by diarrhea (sometimes bloody), abdominal pain and nausea. Symptoms appear within two to five days after eating and may last seven to 10 days.

E. coli

- Undercooked beef, especially hamburger
- Unpasteurized milk and juices
- Contaminated raw fruits and vegetables
- Contaminated water

Symptoms of E. coli include diarrhea (often bloody), abdominal cramps and vomiting. These symptoms may begin one to eight days after food is eaten and can last five to 10 days.

Staying Safe

We have learned that foodborne pathogens can contaminate just about everything we eat — water, milk, eggs, meat and poultry. So how do we prepare and consume food safely? The USDA recommends using these four steps to food safety:

1. Clean

- Wash hands the right way — for 20 seconds with soap and running water.
- Wash surfaces and utensils after each use.
- Wash fruits and veggies — but not meat, poultry or eggs!

2. Separate

- Use separate cutting boards and plates for produce and for meat, poultry, seafood and eggs.
- Keep meat, poultry, seafood and eggs separate from all other foods at the grocery store.
- Keep meat, poultry, seafood and eggs separate from all other foods in the fridge.

3. Cook

- Use a food thermometer.
- Keep food hot after cooking (at 140 F or above).
- Microwave food thoroughly (to 165 F or above).

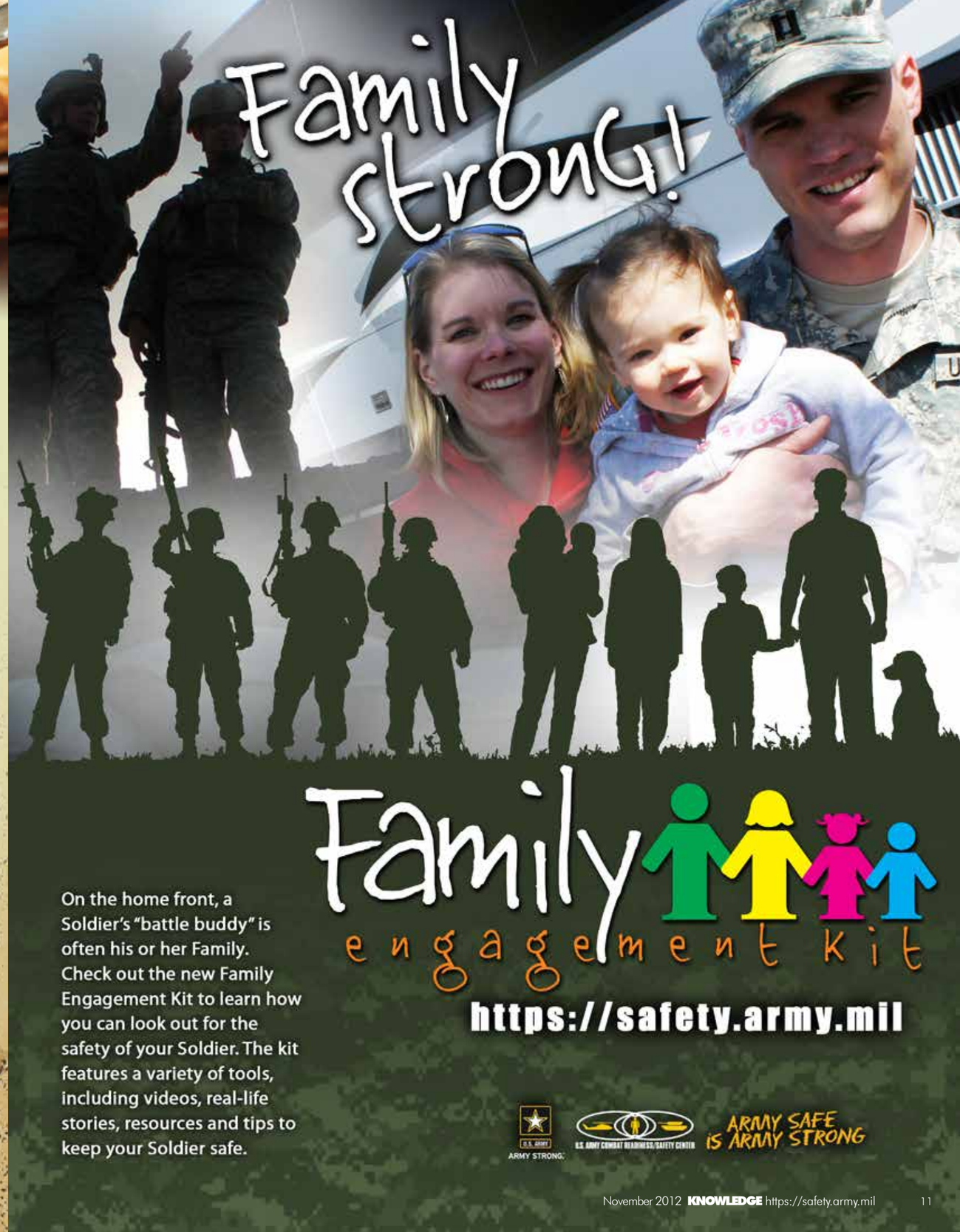
4. Chill

- Refrigerate perishable foods within two hours.
- Never thaw or marinate foods on the counter.
- Know when to throw out food.

When you gather for family feasts during the holidays, remember to handle and prepare food safely. Be aware of the symptoms of foodborne illness and have an action plan in place. Make the four steps to food safety — Clean, Separate, Cook, Chill — an everyday habit. And remember, when in doubt, throw it out!

FYI

For additional information on food safety, visit the U.S. Army Public Health Command website at http://phc.amedd.army.mil/topics/foodwater/ifs/Pages/default.aspx or the Centers for Disease Control and Prevention Food Safety Office at http://www.cdc.gov/foodsafety/food-safety-office.html.



Family engagement kit

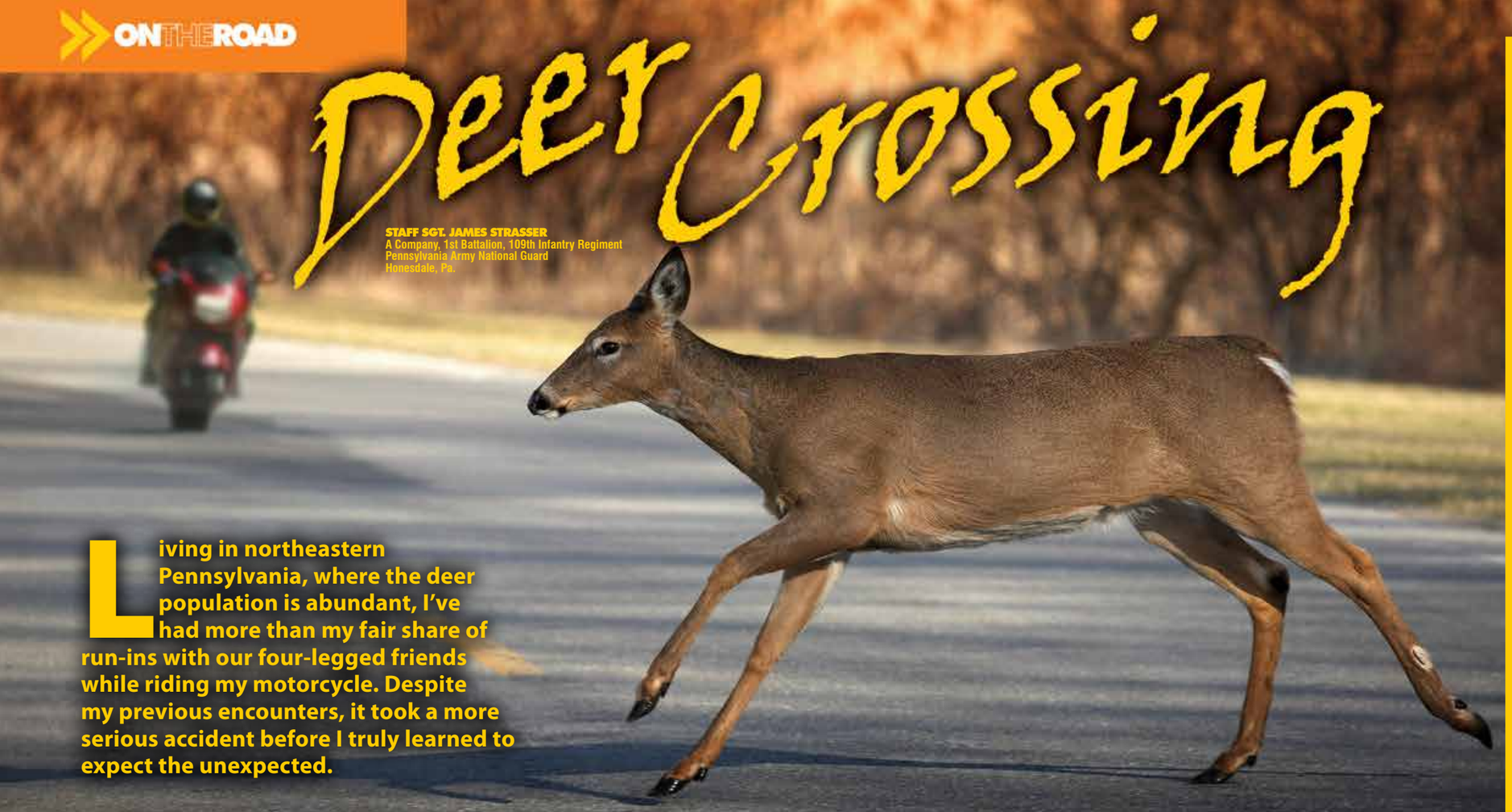
On the home front, a Soldier's "battle buddy" is often his or her Family. Check out the new Family Engagement Kit to learn how you can look out for the safety of your Soldier. The kit features a variety of tools, including videos, real-life stories, resources and tips to keep your Soldier safe.

https://safety.army.mil

ARMY STRONG. U.S. ARMY COMBAT READINESS/SAFETY CENTER ARMY SAFE IS ARMY STRONG

Deer Crossing

STAFF SGT. JAMES STRASSER
A Company, 1st Battalion, 109th Infantry Regiment
Pennsylvania Army National Guard
Honesdale, Pa.



Living in northeastern Pennsylvania, where the deer population is abundant, I've had more than my fair share of run-ins with our four-legged friends while riding my motorcycle. Despite my previous encounters, it took a more serious accident before I truly learned to expect the unexpected.

I have had three incidents involving deer while riding my Harley-Davidson two-up, meaning I had a passenger on the back of the bike. In each of those incidents, instead of hitting my brakes, I depressed my clutch and rode through the impact, keeping the tire(s) rolling. This maneuver allowed me to remain in control of the motorcycle. If I had locked up the brakes, I'd have gone into a skid. I would have lost control and laid down the bike.

My fourth and most recent wildlife encounter occurred on a country back road. As I entered a left-hand curve, a deer sprinted out of the woods straight at me. The course of action I took was to swerve to the right to avoid making contact with him. I then had to pull the motorcycle back hard to the left to stay on track with the direction the road was taking. This put me into a left-side skid for about 25 to 30 feet. Sparks flew as I tried to gain control. With the road pavement running out in the direction of the skid, I decided to give it some gas to try and get on track. That worked; however, it was too late and my rear tire came off the side of the road, causing me and my 2008 Heritage Softail Classic to flip to the right.

After a series of rolls, I quickly jumped up and checked myself for injuries. By this time, my buddies who were riding behind me had come to a stop. They were shocked to see me standing up after witnessing what looked like a fireworks display caused by the sparks created as the metal scraped the pavement. We looked over the bike — which had a lot of damage, but was still drivable — before making the eight-mile ride back home.

Once in my driveway, I started to remove my leathers but was unable to lift my right arm. There was no pain, but it seemed to be locked in place. It was only after we'd taken off my jacket and shirts that we could see my right clavicle was sticking up about two and a half inches

> "When **DOCTORS PERFORMED** an MRI, they discovered I also had **BROKEN MY NECK** in three places."

SHARING THE ROAD WITH NATURE

Here are some tips from motorcyclecruiser.com to help you avoid deer-motorcycle collisions:

- Deer travel in groups. One deer means there probably are more, so slow down immediately even if the one you see is off the road and running away.
- Heed deer crossing signs, particularly in the seasons and times of day when deer are active. Slow down, use your high beams and cover the brakes.
- The Wisconsin Department of Transportation says deer collisions peak in October and November, with a smaller peak in May and June. Such crashes between April and August are most likely to occur between 8 p.m. and midnight. Between November and January, 5 to 10 p.m. were the danger times.
- Additional good, powerful driving lights are worth their weight in gold on a deserted road at night. Alternatively, fit a headlamp with a 100-watt high beam.
- Noise — a horn, revving your engine, etc. — might drive deer away.
- Flashing your headlights can break the spell that seems to cause deer to freeze.
- Don't challenge large animals by approaching them. A buffalo, moose, elk, mountain lion, bear or large deer might attack to drive you off. Stay back and consider turning and riding farther away.
- Stay away from an injured animal. It might attack or injure you unintentionally if it comes to and tries to escape.
- Don't swerve if a collision appears imminent. Braking hard right up to the point of impact is good, but you want to be stabilized if you do collide, which will give you the greatest chance of remaining upright.
- Spread out if riding in a group. This pattern will keep a rider who hits a deer from taking other riders down with him.
- Wear protective gear. As with other crashes, no one plans to hit an animal. The only way to be ready when it happens is to be ready on every ride.

DID YOU KNOW?

According to the Insurance Institute for Highway Safety, more than 1.5 million deer-vehicle accidents occur annually in the United States, killing about 150 people and causing at least $1 billion in vehicle damage. Motorcycle riders account for about half of the deaths in vehicle-animal crashes despite the fact that cars, trucks and SUVs outnumber motorcycles on the road 40 to 1.

above where it should be. To make a long story short, I now have new ligaments, tendons, two plates and four screws in my right shoulder. To make matters worse, about a week after my surgery, I slipped on some ice and reinjured my shoulder. When doctors performed an MRI, they discovered I also had broken my neck in three places.

Fortunately, my injuries eventually healed and my bike was repaired, allowing me to enjoy many more hours cruising the back roads. But this incident left me with several important lessons learned.

1. **Wear all your personal protective equipment.** During the accident sequence, I hit four large boulders — one with my head. My helmet saved my life that day, and riding leathers helped limit the injuries to my body as I slid down the road. There is no substitute for good PPE.
2. **Don't become complacent.** I'd already hit three deer before this incident and always managed to keep the bike upright. This made me both complacent and overconfident in my abilities. Because the other incidents took place on straight roads, I never considered that a deer would come at me while I was in the curve.
3. **Even when you're close to home, keep alert.** For years, I've heard that most accidents happen close to home. It took this accident for me to believe it.
4. **Expect the unexpected. Deer — and some motorists, for that matter — are unpredictable and don't adhere to the rules of the road.** Always keep your head on a swivel so you aren't caught by surprise when a monster buck comes barreling out of the treeline or a distracted driver merges into your lane.

RIDE FOR YOUR LIFE

RISK MANAGEMENT Belongs in Every Cockpit

CHIEF WARRANT OFFICER 3 (P) DAVE STOCK
2nd Aviation Detachment
United States Military Academy
West Point, N.Y.

These days, it seems as though more and more Soldiers are learning to fly private planes. More than half of the pilots and crew chiefs in my unit have some form of fixed-wing rating or training. I recently attended an Army school and 20 percent of the class held airplane ratings, ranging from flight instructor to private pilot. The numbers appear to be growing as the cost and availability of flight training becomes more reasonable. With the increasing number of Soldiers aiming toward the sky in their own aircraft or rentals from local fixed-based operators, has the Army noticed this trend and started talking about it? Are we educating leaders and Soldiers about the risks in private aviation? Are we teaching them to use risk management as they would for driving safety and other off-duty activities?

In July 2010, I made up my mind that I was no longer going to let the unit flight schedule limit my flying. I headed out to a local airport and inquired about learning to fly airplanes. Having already earned my commercial instrument rotary-wing pilot certificate, I only needed half as many hours as a normal first-time flyer to earn my Airplane, Single Engine, Land – Private Pilot endorsement. Within a few short months, I completed my check ride and was legal to fly whenever I wanted. In fact, just four months after my first fixed-wing flight, I purchased an airplane, completed my instrument rating and began living the dream.

On the flight home from picking up my plane, I met one of the most experienced Army aviators around, Chief Warrant Officer 4 Jimmy Stidfole, an experimental test pilot with the Aviation Applied Technology Directorate at Fort Eustis, Va. He recognized a friend of mine who was waiting for me to land. After landing, Jim and I spoke for a few moments as he congratulated me on my purchase and welcomed me to the aircraft owner's club. I never would have imagined that I'd be attending Jim's memorial service five months later.

I'll never forget the day he died. I was watching the late-night news when I saw a report of a local plane crash. Earlier that day, Jim had departed our airport with his son aboard his personal airplane, landed at another location and let his son out to play with his grandmother. Then Jim's sister got into the aircraft and they departed on a pleasure flight. Eyewitness reports stated that his airplane's engine started to sputter as he climbed after takeoff. I truly believe if there was ever a pilot

capable of saving the aircraft that day it was Jim. Unfortunately, he was unable to recover and crash-landed in a field not far from the runway.

That day, Army aviation lost a wonderful pilot in an accident that also spelled tragedy for his wife and children. His death left me facing the reality that one of the best-trained, most experienced pilots in the world perished doing the same thing I did every week. That shook me, as I had just a fraction of his experience. I didn't fly my airplane for a month following Jim's death. I couldn't shake the thought of the same thing happening to my family and friends.

Jim wasn't the only Soldier to die in a private airplane crash in 2011. Another Soldier died in Alaska when his engine failed. Recently, two civilian pilots from the same area where Jim lived experienced engine failures. Fortunately, they managed to crash-land safely, and their passengers walked away. However, these accidents highlight the risks in flying single-engine airplanes — risks that can no longer be overlooked.

Over the years, I've learned the Army's risk management process pretty well. I've done TRiPS assessments before going on leave, pass or TDY and received safety training for a variety of off-duty activities. However, I've never heard an in-depth discussion about privately owned aircraft safety. There is no counterpart to TRiPS for Soldiers who fly private aircraft. Perhaps some in Army aviation don't want to pry too much for fear of appearing uninformed even though, outside of takeoff and landing, there isn't a big difference between airplanes and helicopters.

Ignoring this issue won't make flying private aircraft any safer, so I encourage leaders at all levels to engage the private pilots in their ranks. Just as we would for any mission, talk to them about their currency, proficiency, weather and maintenance. Help them assess the hazards and implement controls. Make sure they understand that even the best trained can find themselves in a bad situation. As Gen. B.B. Bell used to promote, a little "under the oak tree counseling" could make a huge difference when Soldiers take to the sky in their private airplanes. Training, preventative maintenance and good planning won't remove all risk from private plane flying, but maybe it will help keep some of the world's best pilots within our ranks. «

"Are we TEACHING THEM to use RISK MANAGEMENT as they would for DRIVING SAFETY and other OFF-DUTY ACTIVITIES?"

ARE YOU READY?

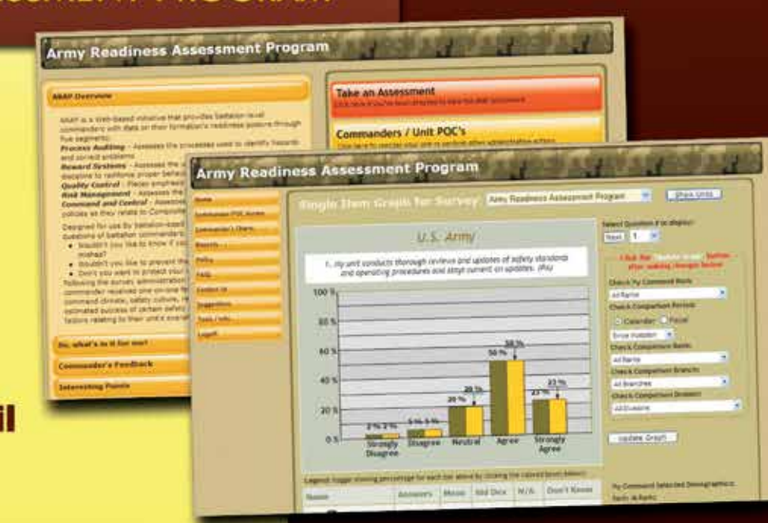
Wouldn't you like to know if your unit is about to experience a mishap?

Wouldn't you like to prevent the loss of personnel and equipment?

Don't you want to protect your combat power?

ARAP

ARMY READINESS ASSESSMENT PROGRAM



ARAP is a Web-based initiative that provides battalion-level commanders with data on their formation's readiness posture.

Sign up for your assessment today!

https://unitready.army.mil

WE'VE ALWAYS DONE IT THAT WAY

BRANDON WATSON
Army Fleet Support
Fort Rucker, Ala.

Complacency is a known problem in the Army and often recognized as a causal factor in accidents. Sometimes we take shortcuts because we've become complacent and more lax about our personal safety. The places that feel the most familiar can be the most unsafe because the menace is not always so obvious. When we feel confident that an environment is stable, we often forget things are subject to change. Situations can become unsteady in an instant, so we must remember there's always the potential for a catastrophe.

In 2004, my transportation unit was attached to a heavy equipment transporter company in support of Operation Iraqi Freedom. We were responsible for transporting tanks, Strykers and other equipment that needed to be moved throughout Iraq. As you can imagine, we traveled many miles. We'd often spend hours or days on end driving until we were exhausted. After long trips, it was common practice for our unit to stop the convoy and check our trucks and the loads for damage. After doing this so many times throughout our rotation, it became routine. Soldiers were becoming complacent, sometimes forgetting the dangers lurking out there.

One day, we stopped on a road somewhere in north central Iraq. We got out and were checking the loads when all of a sudden, over the radio, we heard a panicked scream repeating, "IED! IED!" Sure enough, there was an improvised explosive device lying on the side of the road, right in the middle of the convoy! Thankfully, there weren't any enemies around to detonate it, so we averted disaster. Had we been more vigilant and aware of our surroundings, I'm confident we would've selected a safer spot to stop. Situational awareness saves lives, especially during combat operations.

For me, it's scary to think what it takes to wake up an organization. This was a prime example of complacency. A simple task completed so many times in the past could've turned tragic very quickly.

If we stop for a moment and think, I'm sure we can all come up with instances when we've been complacent. It happens because we perform many functions on a continual basis. Many of our jobs are repetitive in nature, and the more we repeat a task, the better the chance we have of becoming complacent.

How many times have you heard someone say, "We've always done it that way," when questioned about why they performed a task a certain way? Since it has stood the test of time, then it must be correct to complete the task properly, right? Well, that's not necessarily true. The very fact that the task is repeated often can draw us into the complacency trap. We learn to expect proven results until one day the outcome changes for the worse. Stay alert, stay alive and remain diligent in your accident prevention efforts.

DID YOU KNOW?

The Ground Risk Assessment Tool empowers leaders and Soldiers to reduce accidental loss and injury by incorporating risk management into a quick, user-friendly system that eases the mission planning process. GRAT provides users with up-to-date accident statistics, relevant accident vignettes and guidance, including regulations, training circulars, field manuals, and tactics, techniques and procedures. In doing so, GRAT helps ensure users capture a complete picture of hazards and controls they may not have previously considered. GRAT allows users to save time, learn from others' mistakes and integrate risk management into all their activities, whether on or off duty. By incorporating safety into mission planning at every echelon, GRAT ensures leaders and Soldiers have the information they need to reduce accidental loss and protect and maintain combat power. Check out GRAT today by visiting https://grat.safety.army.mil/GRAT (AKO login required).

Up in Flames

COMPILED BY THE KNOWLEDGE STAFF

As winter temperatures fall, the risk for fires rises. According to the U.S. Fire Administration, fires cause about 2,000 injuries and more than $500 million in damage each holiday season.

To prevent a fire, you need to understand how one is created. Fire requires three components — oxygen, fuel and a heat source. Simply eliminating any one of these will prevent a fire. However, since oxygen exists naturally in the atmosphere, you need to concentrate on keeping fuel and heat sources apart. Heat can be produced by heaters, lights, appliances or fire itself. Fuel is anything that will burn, including draperies, trash, dry wood and even wires.

If you use a fireplace for heat, have your chimney inspected and cleaned by a professional to remove any creosote — the dark brown or black flammable tar that builds up inside. Using a metal mesh fireplace screen will keep burning embers from flying out. If you'll be using artificial logs, follow the instructions closely. In addition, never burn trash, to include wrapping paper, in your fireplace.

Space heaters can be another effective way to heat your home, but be careful and follow the manufacturer's instructions on how to use one properly. If you have a window above a heater, make sure the drapes don't touch it. In fact, when using a space heater, keep everything at least three feet away, including furniture.

Christmas trees are another holiday fire hazard. Pick a fresh, green tree with needles that don't break easily. When bounced on the ground, very few needles should fall off. To keep your tree fresh, keep it away from heat and make sure the stand is full of water. If you select an artificial tree, make sure it is flame retardant and keep it away from heaters.

When it comes to decorating your house with holiday lights, be sure to use only Underwriters Laboratory-approved equipment. Test your holiday lights, whether they are old or new, before you use them. Check each strand to ensure the wires aren't frayed and the insulation is in good condition. Replace any lights that are missing or inoperable. As a rule of thumb, don't link more than three strands together unless the manufacturer says it is safe to do so. Never leave your lights on unattended and periodically check the wires, which should not be warm to the touch. Be careful not to overload electrical sockets (this rule holds true throughout the entire year!). Also avoid using candles; but if you do, be very careful. Ensure they can't be tipped easily and never put them on a tree or leave your house while they're burning.

These tips are a starting point to help you be safe during the holiday season. Here are some additional recommendations to keep you safe throughout the year:

- Make sure you have working smoke alarms on each floor of your home and located outside each sleeping area.
- Test the batteries in your smoke alarms each month, and change the batteries twice a year.
- Never leave the kitchen unattended when cooking, and avoid open flames when you're wearing loose clothing.
- Never overload electrical sockets.
- Plan and practice a fire escape plan with your family.
- Contact your local fire department concerning any special needs of family members and to have your fire escape plan reviewed.
- Most local or post fire departments will show you where to install smoke detectors in your home. Normally this is a free service.
- Keep a phone near your bed so you can call 911 in an emergency.
- Think about fire prevention every day!

Keep in mind, fire prevention needs to be practiced year-round to be effective. Know the signs — know what's right — do what's right. For more topics, tips and resources, visit the U.S. Army Combat Readiness/Safety Center winter safety campaign page at https://safety.army.mil.

OUT IN THE COLD

Driving in winter weather can create many challenges for motorists who aren't properly prepared. Growing up in the South, I didn't have many encounters with snowy days and icy roads. That lack of experience nearly proved costly for me one winter on a long trip from Colorado to Georgia.

SGT. 1ST CLASS CARNELL RICHARDSON
201st Regional Support Group
Georgia Army National Guard
Fort Gordon, Ga.

In 1991, I was stationed at Fort Carson, Colo., and had decided to use some leave and drive back home to Georgia. The extended forecast called for snow, but I figured I would be long gone before it arrived. The skies were clear the morning I left, so I neglected to check the weather and the road conditions for my route. Everything was going as planned when I started to see snow on the roadsides.

I didn't even have a chance to give the snow much thought when my car started sliding out of control. I'd driven over a patch of black ice and was now heading toward the edge of the road. I tried to correct my direction of travel, but the car kept sliding. I eventually ended up in a ditch on the side of the road.

Since I did not prepare properly, I was now stuck on the side of the road in a ditch without any blankets or food. And being that this was the early 1990s, I — like most folks at that time — didn't have a cellphone I could use to call for help. Fortunately, I only had to wait about an hour before another motorist came by and pulled my car out of the ditch. Once back on the road, I was able to continue my trip without any further incidents.

This experience made me realize how important it is to fully prepare for a trip — regardless the weather conditions, which can change in an instant. Before even getting on the road, I inspect my vehicle's ignition, battery, headlights and taillights, brakes, wipers, fuel and exhaust systems, heater/defroster, and tires. Once I'm sure everything is in good working order, I

adhere to the following winter driving tips from the Texas Department of Transportation:

- Check the road conditions in your area and stay tuned to local news broadcasts for more information on roadway and weather conditions.
- Remove snow and ice from your vehicle before you drive, making sure the headlights and taillights are visible.
- Accelerate slowly.
- Increase your following distance.
- Brake gently in slow, steady strokes to see how much traction you have, and begin braking early when approaching intersections or stops.
- Approach bridges, shaded spots, overpasses and turns slowly.
- Never use cruise control in winter driving conditions.
- Use non-freezing windshield washer fluid.
- Use snow tires and/or chains (where allowed).

It's also a good idea to keep a winter survival kit in your vehicle in case of an emergency. According to the Texas DOT, a good kit should include at least the following items:

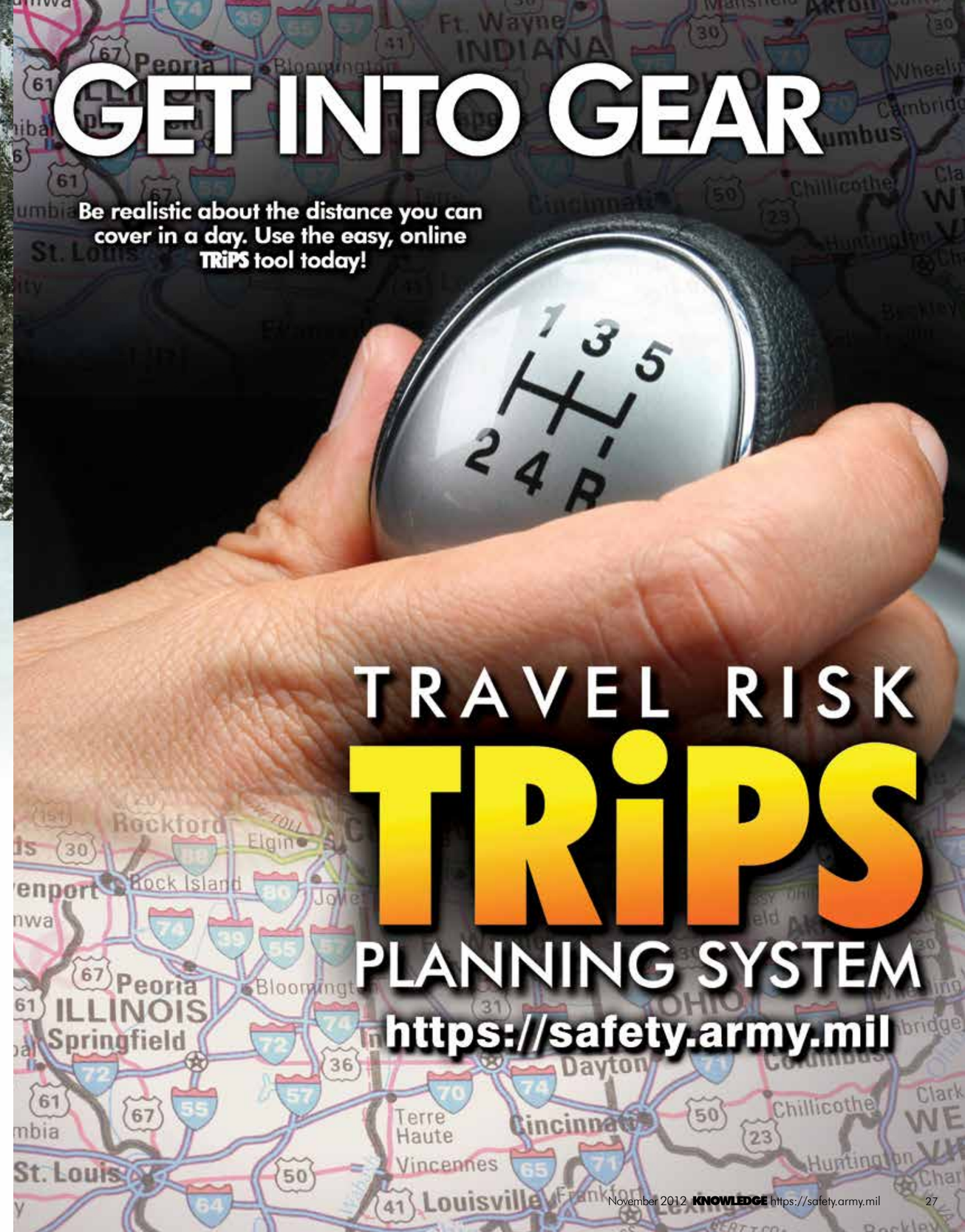
- Flares
- Blankets and warm clothes
- Shovel and scraper
- Flashlight and batteries
- Candles or Sterno flame
- Lighter or matches
- First-aid kit
- Booster cables
- Chain/tow strap
- Non-perishable food
- Water

Winter driving can pose risks for even the most experienced drivers. However, being properly prepared can mean the difference between safely reaching your destination and being left out in the cold.«

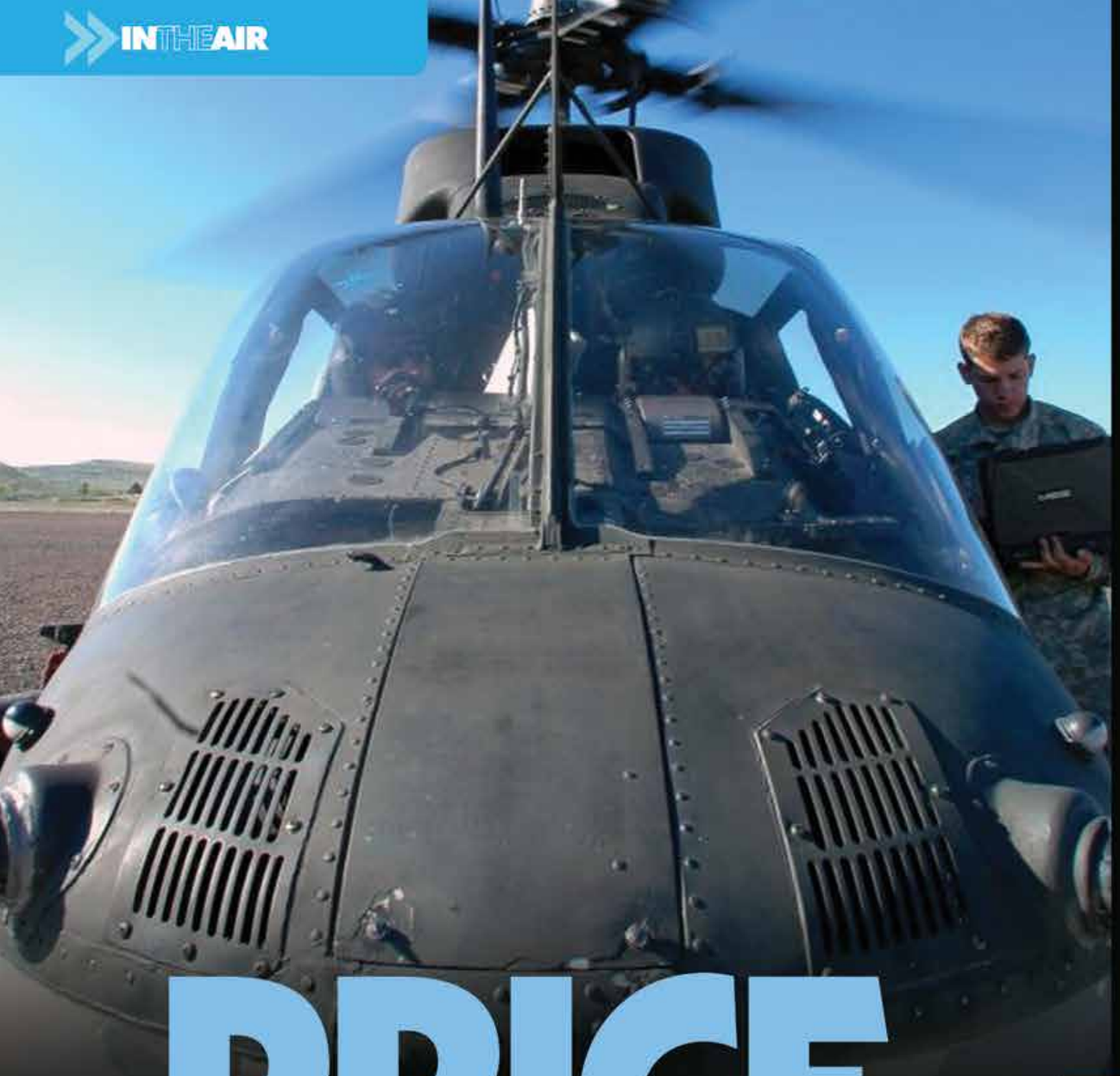
> "This **EXPERIENCE** made me **REALIZE** how **IMPORTANT** it is to fully **PREPARE** for a **TRIP** — regardless the **WEATHER** conditions, which can **CHANGE** in an **INSTANT.**"

GET INTO GEAR

Be realistic about the distance you can cover in a day. Use the easy, online TRiPS tool today!



TRAVEL RISK
TRiPS
PLANNING SYSTEM
https://safety.army.mil



a PRICE too Great to PAY

CHIEF WARRANT OFFICER 2 PATRICK N. BAKER
1st Infantry Division, Combat Aviation Brigade
Fort Riley, Kan.

The day started like any other. Little did I know that soon I'd come dangerously close to killing two of my friends.

My unit was in the fifth month of a yearlong deployment to Afghanistan and I had started to become complacent about the pre-flight checklist. It was about 2 a.m. and I was sitting in the right seat of the trail OH-58D. Both we and the lead Kiowa had just finished our test fire at the range and were heading out to conduct a security mission.

About two minutes after calling ourselves off the range with air traffic control, I switched from the .50-caliber machine gun to rockets. I immediately got a "WEAPON NOT ARMED" advisory message on my multifunction display. I said to the other crewmember, "What the !@#$?" and looked down at the armament control panel. As I did, the aircraft — without any input from me — fired a rocket. I looked up just in time to see it pass under the lead Kiowa, impacting the ground about 50 meters ahead and to the left if it. I immediately safed the system and we began to troubleshoot.

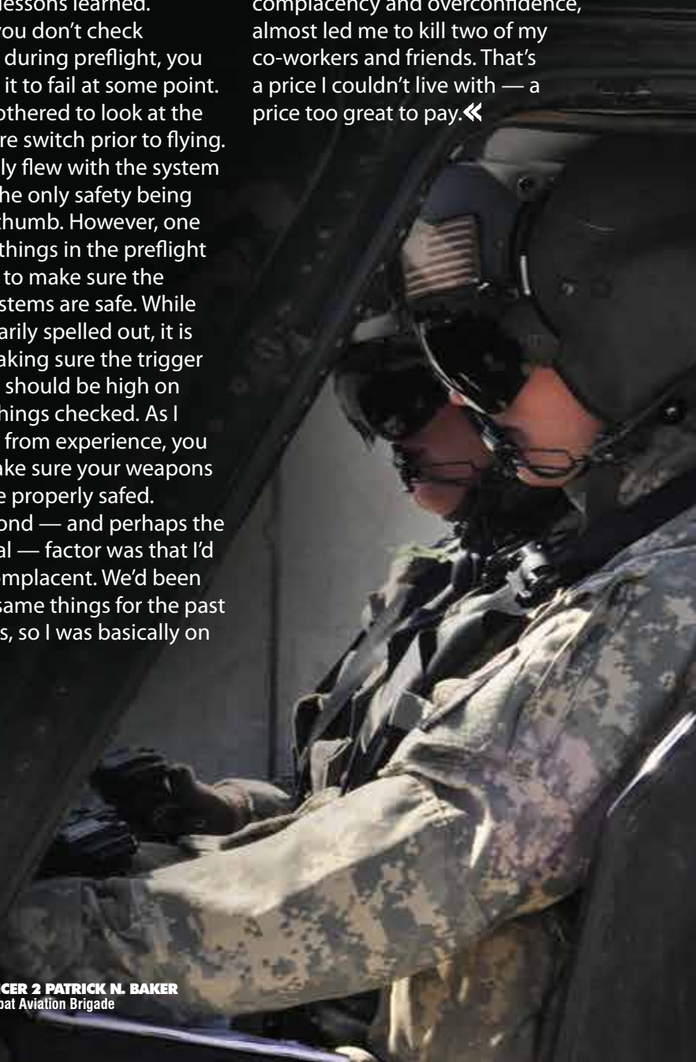
We discovered that the weapons fire switch had stuck in the down position, so I transferred the controls and pried the switch into the up position. We then returned to the airfield and got another aircraft. In the following weeks, I learned that six other crews had experienced the same malfunction. Fortunately, none of these resulted in anyone being killed or injured. For me, however, this was a valuable opportunity to gain some important lessons learned.

First, if you don't check something during preflight, you can expect it to fail at some point. I'd never bothered to look at the weapons fire switch prior to flying. We routinely flew with the system armed — the only safety being the pilot's thumb. However, one of the first things in the preflight checklist is to make sure the weapon systems are safe. While not necessarily spelled out, it is obvious making sure the trigger isn't pulled should be high on the list of things checked. As I discovered from experience, you want to make sure your weapons systems are properly safed.

The second — and perhaps the most critical — factor was that I'd become complacent. We'd been doing the same things for the past five months, so I was basically on autopilot. I'd become used to a routine of showing up at the same time, doing the same things and going home at the same time. Because nothing bad or out of the ordinary had happened up to that point, I'd assumed nothing would. As a result, I let down my guard.

Finally — and I think this is related to complacency — I'd become overconfident. I was sure I could handle anything that might happen.

As you can see, not following procedures, coupled with complacency and overconfidence, almost led me to kill two of my co-workers and friends. That's a price I couldn't live with — a price too great to pay.



They WATCH What You Do

WILLIAM GIBSON
First Army Division West
Fort Hood, Texas

It was two weeks before Christmas, and I'd decided to put up lights on the outside of our house. My wife had been telling me to do it for over a month, but, always the procrastinator, I naturally put it off until the last minute.

When I started my decorating endeavor, it was overcast, cold and windy and had been raining and sleeting all day. Talk about a perfect day for working outside on a ladder … not! I meticulously tested the lights, hooking them together and stretching the strands across the yard parallel to the house. I then leaned the ladder against the house and climbed up. In an effort to expedite my chore, I had my 14-year-old son hold the lights — not the ladder — for me. Like I always say, "Safety first!" As I went up and down the ladder hanging the first strand, I realized this was going to take forever. That's when I discovered a trick called ladder hopping. (Before you judge me too harshly, just think of the silly stuff you have done and the fact that most of us have done something, shall we say, "risky.")

So here's how ladder hopping works. First, you rock the ladder away from the house by leaning back, just enough to balance it. Once balanced, you hop the ladder to the left or right, depending on the direction you want to go. If you don't lean away from the house far enough before hopping, you'll scrape your knuckles against the house. Not only is this unsafe, it hurts.

The first time I did it, I thought this is pretty cool. I told my son that at this pace, we'd be finished in no time.

"I don't know, Dad. Are you sure you're coordinated enough to do that?" he asked.

"Ha! I laugh in the face of danger," I replied.

The challenge had been set and the gauntlet thrown. I couldn't let him think I wasn't capable of ladder hopping, could I?

"I've got this," I said. "Just step back and watch the master."

Since ladder hopping isn't an Olympic sport, I figured there was no defined personal protective equipment and decided against wearing my son's old junior high school football helmet or my daughter's bicycle helmet. Besides, how much time would I waste grabbing some PPE?

All was going well until I came to a rose bush. It wasn't a big bush, and I was sure I could just bounce once backward, twice to the left and then once forward and I'd be back in position to hang the next strand of lights. Boy, was I wrong!

The last thing I remember was attempting the back hop. As I did, my feet went backward — as in off the ladder — but the bottom of the ladder didn't move. At that moment, I realized gravity really is a law. Since my hands were on the sides of the ladder instead of on the rung, I couldn't break my fall. My chin immediately hit the top rung and my head snapped back just as my feet swung back toward the ladder. My left foot went between two rungs up to my knee and my right leg missed the ladder completely. The ladder swayed for a few seconds before falling backward, with me still attached, into a large puddle of icy, muddy water.

Fortunately, I wasn't hurt badly, but my pride was bruised. As I sat there in the puddle, I looked at my son and said with as straight a face as possible, "Well, I hope you learned a valuable lesson here."

"Dad, trust me, I will never try that," he said. "But what are you going to tell mom?"

"Nothing," I replied. "We'll keep this learning moment between us."

I learned a valuable, albeit painful, lesson that day. Those around you — children, Soldiers, co-workers — not only hear what you say, they also watch what you do. You set the standard. Take the time to use some risk management before attempting something potentially dangerous. You never know who is watching. Plus, it's just the right thing to do.

> "I learned a **VALUABLE**, albeit painful, **LESSON** that day. Those **AROUND** you — children, Soldiers, co-workers — not only **HEAR** what you **SAY**, they also **WATCH** what you **DO.** You **SET** the **STANDARD.**"

My Worst Fear

GUNNERY SGT. PEDRO VILLARREAL
Uniformed Service University of the Health Sciences
Bethesda, Md.

I grew up poor, so most of the vehicles my family owned were small and only seated up to four passengers. Some might not see that as a problem, but for our family of seven, it was always an issue. It wasn't uncommon for all of us to cram into the car for a trip to the store. And since we were packed in so tightly, we never wore our seat belts. Therefore, I always thought it was normal not to wear one.

This way of thinking held true until October 1993. I was a junior in high school and in the process of joining the Marine Corps. My family and I had just returned from a vacation to Mexico, and the following day was the last of the school year. The next morning, my mother said I could stay home since we were all still so tired from our drive back from Mexico. However, I told her I felt fine and went on to school.

A Marine Corps recruiter picked me up from school that afternoon so I could take care of some traffic tickets. Once we were finished at the county clerk's office, we started making our way back to my house. A few miles from our exit, traffic began to back up on the interstate and state troopers were diverting vehicles onto a feeder road. I didn't think much of it, and the recruiter and I started talking about what kind of accident could be causing the tie-up. As we neared the accident scene, I saw my sister's damaged truck on the side of the road. I told the recruiter to stop, jumped out of his car and ran to the truck.

The ambulances had already left the scene by this time, so I didn't know who had been in the truck. I eventually found my sister crying on the side of the road and asked her what had happened, but all I could understand her saying was, "Mom!" I was confused and not sure what was happening. A state trooper asked me to go get my father, so I left to find him. I returned to the scene only to discover my dad was already there. I ran to him and asked where my mom was, but he didn't answer. As I glanced back toward my sister's truck, I could see there was a sheet covering a body on the interstate. I wanted to know who was under that sheet. My dad then confirmed my worst fear, telling me that my mom was no longer with us.

My sister drove a 1980's model Chevrolet Silverado that only

DID YOU KNOW?

Seat belt use continues to increase and averages 88 percent nationally. However, there are still groups less likely to wear their seat belts, including teens, commercial drivers, males in rural areas, pickup truck drivers, people driving at night and people who have been drinking.

Seat belts are the single most effective traffic safety device for preventing death and injury, according to the National Highway Traffic Safety Administration. Wearing a seat belt can reduce the risk of crash injuries by 50 percent. What's more:

- **Seat belts saved more than 75,000 lives from 2004 to 2008.**
- **Forty-two percent of passenger vehicle occupants killed in 2007 were unbelted. A 2009 NHTSA study estimates more than 1,600 lives could be saved and 22,000 injuries prevented if seat belt use was 90 percent in every state.**

Source: National Safety Council

seated three passengers. I later found out that my 4-year-old brother, 8-year-old sister, 2-year-old nephew and my mother had all been riding with my sister. None of the younger kids was in a car seat and no one was wearing a seat belt. When my sister lost control of the truck, my mom was ejected and landed on the interstate.

To lose a loved one always hurts. But to lose the person who gave birth to you and did everything in their power to ensure you were always taken care of hurts the most. Since that day, I have always worn my seat belt and made sure anyone riding with me does the same. I never want my children to know the feeling of losing a parent at such a young age. Seat belts save lives … but they only work if you wear them.

> "Since that day, I **HAVE** always **WORN** my **SEAT BELT** and make sure **ANYONE** riding with me **DOES** the **SAME.** I never want my **CHILDREN** to know the feeling of **LOSING** a **PARENT** at such a **YOUNG** age."

When the Needles SPIN

CHIEF WARRANT OFFICER 3 JOSHUA SNOW
B Company, 15th Military Intelligence Battalion,
500th Military Intelligence Brigade
Fort Hood, Texas

Early May in central Alaska is a beautiful time of year. The mountainous landscapes, longer periods of daylight and warmer temperatures are truly a sight to behold. However, that's assuming you've got good weather.

I was preparing for my instrument flight evaluation as part of my annual proficiency and readiness test. On this day, I would be flying from Fort Wainwright, Alaska, to Fort Greeley with the company standardization pilot/instrument examiner. The weather forecast was great for both the departure and arrival airfields. However, the SP/IE and I could expect to be flying in instrument meteorological conditions for almost the entire en route portion of the flight. Due to the limited instrument flight rule route structure in central Alaska, we had both flown this route numerous times. We expected an easy instrument flight evaluation. Little did we know what was in store for us.

With the oral evaluation and preflight complete, we departed Ladd Army Airfield IFR, headed toward Fort Greely. Departing to the south was uneventful and actually pleasant. The atmosphere in the cockpit was relaxed, a feeling I have learned to temper with added vigilance. The UH-60A we were flying was one of the oldest in the fleet at that time. Having recently been moved from Korea to Alaska, there was no doubt this airframe had some time on it.

Halfway to Fort Greely, established on the Victor airway at 4,000 feet and in the clouds, I noticed something strange with my attitude indicator. It began rocking left and right and then started to spin very quickly. I announced this to the crew, then looked cross cockpit and saw the same thing happening on the co-pilot's side. Next, I noticed a problem with my horizontal situation indicator. All the needles were spinning. Every second the indicator needle swung 180 degrees, stopped and then returned to the present heading. As I announced this, the same situation was also occurring on the other side of the cockpit. The seasoned warrant officer SP/IE, who had more than 4,000 hours, told me he had the controls. He said I was doing fine and we would have to put into practice our flying partial panel training. He then told me to contact air traffic control, advise them of our situation and request radar vectors to the precision approach radar at Fort Greely, where we would land. We followed the vectors to the PAR, executed the approach and landed safely. Later, a maintenance test pilot conducting the post-flight inspection found a loose cannon plug on the command instrument processor. That is what caused the gyros to spin out of control.

Lessons Learned

We practice partial panel flying in the flight simulator, but it can be unsettling when you unexpectedly encounter it during flight. Flying without an attitude indicator can be challenging. Flying without a horizontal situation indicator can also be challenging. Flying without both is my idea of a bad day. Using the standby magnetic compass requires skills we, arguably, all need to review. What is the magnetic variation on your path of flight? Do you add it to your magnetic course or subtract it for your direction of travel? Did your flight planning include the true course and magnetic course on your navigation log?

Fortunately, I was a young warrant officer on my second instrument flight evaluation thus far in my career, so I completed my navigation log with great attention to detail. But it shouldn't take an evaluation to force us into our most thorough work through of a problem. I attribute the safe outcome to the SP/IE that day. I learned a valuable lesson about complacency. Even if you've memorized Chapters 5 (operating limits and restrictions) and 9 (emergency procedures) of the -10, there are still malfunctions that can endanger an unprepared crew.

Finally, always be prepared with the right publications. As professional aviators, we should always have current aircraft pubs with us, no matter the training situation. Knowing what to do and how to do it can make all the difference when the needles spin.

It Won't Happen to Me

JOHN BOUTIN
Watervliet Arsenal Safety Office
Watervliet, N.Y.

Most of us probably don't give much thought to slip, trip and fall hazards, but they pose a danger as we go about our daily routines. Perhaps you've seen someone at a store stretching for an item on the top shelf that's just out of reach. The next thing you hear is a loud crash.

That person just fell and landed on his back with the shelving unit on top of him. Not only did he hurt himself, he injured several other shoppers as well. It's no laughing matter when folks refuse to take the time to ask for help. While this scenario is hypothetical, I think most of you can relate. Here's an actual incident I witnessed firsthand:

One night, I heard a commotion outside my house. When I went to investigate, I saw my neighbor's father-in-law lying on the ground and rushed to help him. It didn't take long to realize that he'd been drinking and tripped on the sidewalk leading to my neighbor's house. With its uneven sections of concrete, that sidewalk was an accident waiting to happen. And even though the father-in-law had walked that path hundreds of times before without incident, the combination of factors that night weren't in his favor. Fortunately, he wasn't seriously injured.

On a different occasion, I watched another neighbor almost become a slip, trip and fall victim. This time it was winter and there was ice and snow on the ground. All the neighbors had cleared off the sidewalks in front of their homes except this woman. When she came out of her house, she went for a ride, sliding down her sidewalk. She was lucky and didn't fall. However, if she would've just taken the time to clear her walkway, she probably wouldn't have had a close call.

I believe most people have an "it-won't-happen-to-me" mindset when it comes to slips, trips and falls. The potential for these types of accidents around the house are avoidable if individuals take the time to identify and fix hazards. The same goes for the workplace. Soldiers, Civilians, supervisors and subordinates alike should be cognizant of their surroundings and take ownership of their personal safety.

DID YOU KNOW?

In fiscal 2011, Department of the Army Civilian slip, trip and fall accidents cost the Army $47,860,176. From fiscal 2006 through 2011, there were seven reported Class A slip, trip and fall accidents involving Soldiers. Of those, three resulted in fatal injuries. For information on workplace hazards and how to reduce the risk of work-related injuries, visit https://safety.army.mil/soh/INDUSTRIALSAFETY/tabid/369/Default.aspx.

Eyes Wide Shut

STEVEN T. SMITH
Carl R. Darnall Army Medical Center
Fort Hood, Texas

How many times have you sat bleary-eyed behind the wheel and tried to convince yourself you weren't too tired to drive? I admit that I have been guilty of driving fatigued. But I learned, thankfully without being hurt, that pushing the body too far just to make up some time could result in paying a price you are unwilling to accept.

The college semester was coming to a close, final exams were staring me in the face and I was looking for engineering internship opportunities to gain some real-world experience. A human resources representative at one company where I'd applied contacted me, saying that the engineering manager wanted to interview me in person at the job site. The site was a two-hour drive away, and I set up the interview for the next Monday.

Monday arrived and I got into my car to head for the interview. As luck would have it, I began to have car troubles and quickly determined I wasn't going to make it to the interview. I called the engineering manager to inform him about my situation, fearing this job opportunity was now closed. Fortunately, he understood my circumstances and gave me a last-chance interview for 9 a.m. Thursday, as I had exams and other obligations Tuesday and Wednesday.

KNOW THE SIGNS

According to AAA, there are several warning signs to drowsy driving, including:

- **The inability to recall the last few miles traveled**
- **Having disconnected or wandering thoughts**
- **Having difficulty focusing or keeping your eyes open**
- **Feeling as though your head is very heavy**
- **Drifting out of your driving lane, perhaps driving on the rumble strips**
- **Yawning repeatedly**
- **Accidentally tailgating other vehicles**
- **Missing traffic signs**

After working all day Tuesday, I stayed up all night studying due to anxiety and a general lack of prior preparation. I passed my exams while fighting the haze of fatigue and returned to my room eager to relax and get some rest. What I found was my friends wanting to celebrate the end of another semester. I caved to the pressure and reluctantly headed out with them.

After another sleep-deprived night, I was on the road for my interview by 6:30 the next morning. Thanks to a good local mechanic, my car was roadworthy and didn't give me any problems this time. Fueled by adrenaline and even more caffeine, I arrived at the interview with enough spare time to gather my thoughts and make sure I looked my best.

The interview went very well, with the end result being an internship position offer. Extremely excited, I was not thinking about the extreme lack of sleep I had over the past 48 hours, the two-hour drive home or even that my eyes did not want to stay focused. I just wanted to get back, celebrate the good news and get some well-deserved and overdue rest. I mean, it was only a two-hour drive and it was still daylight. Why pay for a hotel room or nap at a rest stop when my own bed was just a short drive away? I could make it with no problems, right?

The fatigue caught up with me quickly as the adrenaline wore off, but I was too stubborn to pull off the road and take a rest. I tried all the home remedies to stay awake, but no amount of caffeine, blasts of hot and cold air, singing or snacking could help by this point. I remember jerking awake several times on the highway, often straddling lanes. However, there was one event that made me rethink my driving habits — one very large, potentially life-ending "near miss."

I awoke to the sound of a truck horn. I immediately noticed my car drifting on the left shoulder toward an oncoming concrete barricade and guardrail for an overpass. I reacted by hitting my brakes, jerking the steering wheel away from the barrier — missing it by about 12 inches at most — and coming to a stop on the right-hand shoulder at the end of the overpass.

Given the situation, several things could have happened:

- I could have struck the concrete barrier headfirst. Yes, I was wearing a seat belt — at

least I did something right — but the human body does not handle head-on collisions at highway speeds very well.

- I could have lost control of my vehicle when I overcorrected. This might have led to flipping my car, hitting the guardrail or falling off the overpass onto the road and traffic underneath.
- I could have struck the 18-wheeler traveling in the right-hand lane, whose driver was attentive enough to warn and wake me up. The driver had stepped on his brakes when he saw me heading toward the barrier in preparation for an accident. If he had maintained speed, I would have turned into him when I jerked my wheel and hit my brakes. The laws of physics would give the advantage to the 18-wheeler over my small car.

I was extremely lucky that day. I was not fit to drive and should have been subjected to the consequences of that action. Thankfully, I was not. After this narrow escape, I slowly made my way back home, turning the normally two-hour drive into a full-day affair due to rest stops and naps.

As Soldiers and Civilians, the Army is focused on maintaining our combat readiness by not only ensuring health and safety while on-duty, but providing guidance for off-duty activities as well. We should be prepared for the responsibilities and consequences of our individual actions at all times. This includes considering whom our decisions will impact, whether that is a significant other, family or friends. I believe this to be one of the best determining factors when making decisions about risk. Imagine your family and friends learning you died in a POV accident that could have been prevented by delaying the trip to get adequate sleep or taking rest breaks during the drive. Saving a few minutes now is never worth the loss of time with loved ones later.

DID YOU KNOW?

The National Highway Traffic Safety Administration conservatively estimates that 100,000 police-reported crashes are the direct result of driver fatigue each year, resulting in an estimated 1,500 deaths, 71,000 injuries and $12.5 billion in monetary losses.

Source: AAA

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LOST

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, email safe.knowledge@conus.army.mil.

AVIATION

MI-17V1

CLASS A

- The aircraft crashed during landing after contacting a tree. The aircraft sustained significant damage after overturning on its right side and coming to rest inverted, compromising the rotor mast.

UH-60A

CLASS A

- A Soldier was killed when he was struck in the head by a tree branch knocked loose by the aircraft's rotor wash while he was videoing/photographing hoist training.

HH-60L

CLASS B

- The crew experienced a rotor droop condition upon accelerating out of a refueling area. The aircraft impacted ground barriers and sustained damage to the nose area. Three crewmembers suffered minor injuries.

HH-60M

CLASS B

- The crew was running up the engine for flight when, upon advancing from the detent, the system locked into lockout mode and caused both engines to overspeed by 120 percent for more than 12 seconds.

AH-64D

CLASS C

- An uncommanded turret movement during ground taxi for takeoff caused the 30 mm gun mount and turret to be damaged when they became tangled with netting on the ramp.

OH-58D(R)

CLASS C

- The aircraft experienced mast overtorque of 131 percent for four seconds during an annual proficiency and readiness test simulated engine failure. Subsequently, the engine experienced an overtorque of 136 percent for two seconds, and the NG exceeded normal limits by 108 percent.

UC-35B

CLASS C

- A lightning strike caused instrument failures. The aircraft landed without incident.

LOSSES AVIATION — FISCAL 2012 Class A/Fatalities thru Sept. 2012

ATTACK	3/0
RECON	3/4
UTILITY	7/6
CARGO	5/0
TRAINING	0/0
FIXED-WING	2/0
UAS	7/0
TOTAL	27/10

as of Oct. 2, 2012

UAS

MQ-1C

CLASS A

- The system was destroyed when it contacted mountainous terrain during controlled descent to land.
- The system launched normally but began an uncommanded descent from 300 feet above ground level and crashed one mile from the runway. The system and payload were recovered with damage.
- The crew received an Engine Low Oil pressure indication and executed return to base procedures for landing. The engine seized while the vehicle was descending, causing the system to touch down nose-low and collapse the landing gear. The UAS's airframe and payload sensors were damaged.

CLASS B

- Two UASs collided while in operation on the active runway of an uncontrolled airfield. One system was just moving out for takeoff as the other had touched down.

MQ-5B

CLASS C

- The contact crew experienced 50-knot winds during climb out and elected to program the system to return for landing. During descent, the system struck a T-wall 200 feet short of the runway and sheared off the landing gear.

LOSSES GROUND — FISCAL 2012 Class A/Fatalities thru Sept. 2012

AMV	13/12
ACV	6/4
PERSONNEL INJURY (includes weapons-handling accidents)	25/18
FIRE/EXPLOSIVE	3/4
PROPERTY DAMAGE	3/0
TOTAL	50/38

as of Oct. 2, 2012

GROUND

Other

CLASS A

- A Soldier died after he was pinned between a GSA bus and a light medium tactical vehicle.

Personnel Injury

CLASS C

- A Soldier was injured when he shot himself in the hand as he attempted to clear a round from a 10 mm pistol.

DRIVING

POV

CLASS A

- A Soldier and his passenger were killed when their vehicle collided with another vehicle. The occupants of the other vehicle were injured. Seat belt use is unknown.
- A Soldier died after his POV collided head-on with another vehicle in inclement weather conditions. The driver of the other vehicle was also killed.
- A Soldier was killed when she lost control of her vehicle and it overturned.
- A Soldier was killed in a single-vehicle crash while en route to his battle drill location.
- Two Soldiers were killed when their vehicle crossed the median in heavy rain and collided with oncoming traffic. Both Soldiers were wearing their seat belts.
- A Soldier died after her vehicle hydroplaned and struck a roadside barrier.

LOSSES POV/POM — FISCAL 2012 Class A/Fatalities thru Sept. 2012

CAR	42/41
SUV/JEEP	8/7
TRUCK	5/5
MOTORCYCLE	50/48
PEDESTRIAN	5/5
OTHER* (*Includes vans, ATVs, snowmobiles and bicycles)	1/1
TOTAL	111/107

as of Oct. 2, 2012 — Fiscal Year 2011: 109 — Three Year Average: 110

- A Soldier was killed when he was struck by a vehicle while running during personal physical training.

POM

CLASS A

- A Soldier was killed when he lost control of his motorcycle in a hairpin turn and crashed. The Soldier was wearing a helmet.
- A Soldier died after his motorcycle struck the rear of an ambulance that crossed in front of his path en route to an emergency call.
- A Soldier was killed when he lost control of his motorcycle and crashed. The Soldier, who was wearing a helmet, was licensed and had met motorcycle training requirements.

MAKE SOUND RISK DECISIONS.
REDUCE ACCIDENTAL LOSS.
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WEAPONS HANDLING: HOW I DIDN'T SHOOT MYSELF

KNOWLEDGE

VOL 6 DECEMBER 2012

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

UNSEEN HAZARDS

- MOTORCYCLE TRAINING
- LAKE EFFECT SNOW
- ELECTRICAL SHOCKS

+

DRIVING INDISCIPLINED

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OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

LEADERS SOLDIERS CIVILIANS FAMILIES

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Mission statement: The United States Army Combat Readiness/Safety Center (USACR/Safety Center) supports our Army by collecting, analyzing and communicating actionable information to assist Leaders, Soldiers, Families and Civilians in preserving/protecting our Army's combat resources.

We welcome your feedback. Please email comments to **safe.knowledge@conus.army.mil**.

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FAMILIES FIRST

FROM THE DASAF

Soldiers -

This is a wonderful time of year for our Army Family. You and your loved ones have fought hard and done well this past year, and you deserve all the joy this magical season can bring. Enjoy your time together, play it safe in everything you do, and continue looking out for your battle buddies during the break. Often, all it takes is a phone call from a friend to remind someone they're needed. Also remember your brothers and sisters in the fight overseas and their Families here at home. No distance is too great to let them know you care.

Happy holidays, and I look forward to a wonderful 2013 with you! «

TIMOTHY J. EDENS
Brigadier General, USA
Director of Army Safety

FROM THE CSM

"**INEVITABLY**, we always **LOSE** a few **SOLDIERS** to negligent discharges and motorcycle **ACCIDENTS** around the time of the **HOLIDAY** exodus. **CUT** the **RISK** now by making **FAMILIES** part of the **SOLUTION.**"

My Family loves the holidays. Any reason to dress up, decorate and invite people over is cause for excitement in our house, and I can't help but get caught up in the joy of the season too. Those closest to me have supported me through numerous deployments and truly are my strength, but we aren't unique. All across our Army, Families are sustaining their Soldiers and each other with the same determination that has made my career possible. They are, each and every one, truly remarkable!

One of the things that's surprised me during my visits to installations is the enthusiasm spouses and other Family members bring to safety. I've either led or participated in a good number of spouses' briefings now, and I'm still amazed at how quickly wives and husbands "get" the safety message. This is stuff we've been drilling into Soldiers' heads for years, yet it's the Families who pick up on it the fastest. The problem isn't an intellectual disparity — it's tunnel vision.

Sometimes, Soldiers are so used to doing what they do, they can't see the hazards behind it. Even though spouses are removed from the work environment, they still glean enough from what their Soldiers say to recognize the risk. They also have unmatched personal insight into their Soldiers' off-duty lives. If you have a Soldier who drives or rides recklessly, you can bet his or her spouse knows about it and probably feels powerless to stop it. You need to give them the power by involving them in your unit safety programs.

I understand the reluctance of some leaders to take this step. We've come a long way in recognizing the importance of Families, but institutional barriers still exist in wholly integrating them into the Army's day-to-day operations. There's no reason for that to be a problem with safety, however. Families are who we should naturally be turning to in addressing off-duty fatalities. They have the access and the time with their Soldiers to really make a difference, given the opportunity by leaders and safety professionals in the field.

A few years ago, the USACR/Safety Center released the Family Engagement Kit, a compilation of resources and multimedia products designed for Family readiness groups, quality of life representatives and Army chaplains. It's been updated every year since then but hasn't gotten the same visibility as some of our other products, which has done our Families a disservice. Without fail, the spouses and Family members we brief are enthusiastic and eager for a kit of their own when they learn about it. But they shouldn't have to hear about the FEK or any other safety tools from me; they should be getting their information from you.

Here's your chance to fill that gap. This month, we'll release the fiscal 2013 FEK update at https://safety.army.mil. That's just in time for the holidays and allows you ample opportunity to brief your Families on off-duty safety. Many well-meaning spouses will spend a lot of money to make their Soldiers happy with expensive gifts like motorcycles or handguns, without giving a second thought to the training and experience required to enjoy them safely. Inevitably, we always lose a few Soldiers to negligent discharges and motorcycle accidents around the time of the holiday exodus. Cut the risk now by making Families part of the solution.

We closed fiscal 2012 with the second-lowest accidental fatalities on record — that's irrefutable proof of the amazing job each of you does every day. Remember you don't have to do it alone; your Soldiers' Families will be happy and eager to help you out. Involving them will take your safety program to the next level, and our Soldiers deserve nothing less.

I wish you all a happy, healthy and safe holiday! «

Army Safe is Army Strong!

RICK STIDLEY
Command Sergeant Major
U.S. Army Combat Readiness/Safety Center

HOW I DIDN'T SHOOT MYSELF

JAMES A. REDDICK
Deputy to the Garrison Commander
Yakima Training Center
Joint Base Lewis-McChord, Wash.

After reading the article "How Do You Shoot Yourself?" in the May 2012 issue of this magazine, I thought my weapons-handling experiences might also be useful to the safety community. If that seems a little narrow-minded and opinionated, it probably is — but that's OK. I'm a former installation range officer, so weapons safety was my job.

Let's cut to the chase … no one has ever been shot with an unloaded gun. A bang is always conclusive proof that a gun was loaded. Firearms are discharged in one of only two ways: intentionally or negligently. Once the bang happens, it's out of your control. This article is about how to control your firearm.

I have a muzzle magnet. As best as I can tell, it's located just in front of my navel. Firearm muzzles just seem to swing mindlessly toward it whenever I'm in or near a group of shooters. When a muzzle is carelessly pointed at me, I immediately say something and the offender usually gets upset when I imply that they unsafely handled their weapons. They defensively tell me that they know it's unloaded, they just checked it yesterday and ask, "Do you think I'd do something that stupid?" And my retort is always, "Well, I don't know if it's unloaded and I don't care when you checked it. I control the muzzle of my firearm and expect the same from others!"

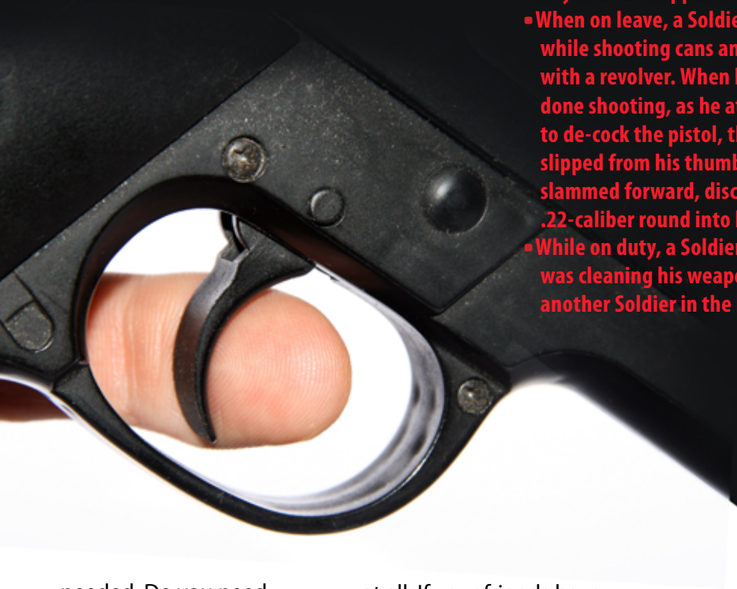
Try this yourself. On the range, stay aware and notice how many other people point guns at you. Controlling the muzzle of your firearm is an "always" requirement, so it doesn't matter if it's on duty or off duty. A negligent discharge will result in the least damage when the muzzle is pointed in the safest direction possible. If you witness someone mishandling a weapon, speak up! And stay cool when someone reminds you to control your muzzle.

Guns fire when the trigger is pulled; triggers get pulled when fingers are on them. If you don't want your gun to fire, don't have your finger on the trigger. I intentionally keep my finger off the trigger when I don't want to fire it, and so should you.

"The safety is on," is an excuse that covers the gamut of firearm handling sins. That excuse doesn't give me a warm, fuzzy feeling. To me, that is kind of like saying that you are driving drunk, but the cruise control is set for the speed limit. Remember, one sensible action doesn't negate the foolish or stupid ones. I don't really trust mechanical safeties. I use them religiously, though, because they work most of the time. What I trust is the "safety" between my ears and keeping the muzzle pointed in a safe direction.

Being somewhat of an oddball, I read directions. I know how to operate my firearms — how to disassemble them, clean them and reassemble them. I practice doing those things and I keep the muzzle pointed safely while doing so. When I get to the range or a hunting area, I know I can load and use my firearm safely. How many tries did it take you to figure out what that little metal tab did on your Benelli? Which of the umpteen different trigger systems does your SIG have? All of that handy information is in the instruction booklet.

My guns are unloaded when they're not in use. It's easy to load them when



needed. Do you need guns loaded and ready in combat? Yes, indeed. How about when you're on the firing line at the range? Certainly. When the pistol is under the seat of the pickup bouncing around? When the shotgun is in the closet? When the rifle is next to the bed? You decide. You have to make that decision based upon your personal situation and the amount of risk you can accept. However, the jurors may have a different viewpoint. So will the cops, your spouse and mom. You need to practice loading quickly and safely so it becomes a skill you can count on.

There is no booze around when I'm shooting. This, too, is an always rule. Yes, beer is also booze. If you've had any alcohol, don't mess with your guns at all. If your friends have been drinking, discourage them from shooting or even handling their guns. Shoot completely sober, then put the guns away, relax and enjoy your beverage of choice.

Guns are expensive. Most of mine have custom work, optical sights and other accessories. I keep them locked in a safe, and I spin the dial every time I close it. Properly secured firearms are safer for, and from, everyone.

Some of you may want to carry a concealed handgun, as I have done for over 30 years. Concealed carry of firearms for self-protection is more prevalent today than ever; 49 of 50 states currently allow concealed carry in some manner. I offer this advice: before you accept the risks and responsibilities that accrue with concealed carry, find a good defense lawyer, knowledgeable law enforcement officer and local prosecutor to discuss your responsibilities and the likely repercussions from actually using that firearm. If you choose to exercise those rights, you need to do so with full knowledge. Military bases do not allow concealed carry — so don't even think about it!

I've found that (for me) the best way to reinforce safe gun handling skills is to shoot. There are competitive events for almost every shooting interest. The United States Practical Shooting Association caters to action-oriented, very competitive people; International Defensive Pistol Association matches center around self-defense scenarios; Cowboy Action Shooting is mostly just for fun; and trap, skeet, sporting clays and formal rifle and pistol competitions stress pure marksmanship. These competitive events are open to everyone and emphasize safe gun handling, familiarity with your firearms and enjoying the shooting sports. Our Army marksmanship unit competes, and so can you. "Newbies" are always welcome. Get out there and make some noise. Safe shooting!

DID YOU KNOW?

Negligent discharges occur on and off duty and can happen to anyone.

- When on leave, a Soldier was injured while shooting cans and bottles with a revolver. When he was done shooting, as he attempted to de-cock the pistol, the hammer slipped from his thumb and slammed forward, discharging a .22-caliber round into his thigh.
- While on duty, a Soldier who was cleaning his weapon shot another Soldier in the leg.

Awareness of safety rules and compliance with appropriate procedures helps prevent accidents. When handling weapons on the range, in combat or off duty, personnel must be aware of and use proper procedures to avoid negligent discharges and other accidents. The Range & Weapons Safety Toolbox is a centralized collection of online resources for managing range operations and safe weapons handling. The toolbox hosts various references and materials, including publications, training support packages, multimedia products, ammunition and explosives information, and safety messages and alerts. By using this toolbox, Soldiers and leaders can minimize risks and sustain combat readiness. Visit https://safety.army.mil/rangeweaponssafety (AKO login required) for more information.

ARE YOU A SHARPSHOOTER?

The Range & Weapons Safety Toolbox contains information and tools related to the safe handling of privately owned weapons, in addition to resources to establish and maintain effective range and weapons safety programs with military weapons.

RANGE & WEAPONS SAFETY TOOLBOX

CHECK IT OUT TODAY!

https://safety.army.mil/rangeweaponssafety

LICENSE TO ILL

JOSEPH FENTRESS
U.S. Army Corps of Engineers
Kansas City, Mo.

Some motorcyclists only go through safety training to get their license and drive on post. However, once off the installation, they seem to forget the rules and fail to practice the skills that might save their lives. When riding a motorcycle, even the smallest mistakes can be life threatening, so risk management and situational awareness are crucial.

It was the first warm weekend of spring during my senior year in high school. The northern Virginia winter was bad that year, and the heavy snows we'd been getting had only recently disappeared. With winter behind us, my best friend, Seth, was eager to get his Kawasaki Ninja sport bike on the road again.

The year before, Seth taught me how to ride it in the school parking lot, but we only covered the basics — how to shift, what brakes are where and how to use the blinker. I had only driven it on the road once, and I remember being both very nervous and excited at the same time. I thought that bike was the coolest thing in the world and wanted to learn to ride.

As Seth and I were making plans for the day, my brother called and told me he had just bought a new Honda scooter. He'd wanted a motorcycle but did not know how to ride one. The scooter was more comfortable for him because he didn't need to shift gears, it was street legal and could get up to 55 mph. Seth suggested my brother stop by so we could all go for a ride.

Within an hour, we were all together on a cul-de-sac near another friend's house. My brother and Seth took off first, and I could hear them laughing as they drove down the street. About 30 minutes later, they returned so I could have a turn. I was nervous, but being 17 and having my peers around, I didn't take the time to consider the risks involved.

I hopped on the motorcycle, and my brother and I took off down the street. About 100 yards down the road, there was a sharp turn and, before I knew it, I was sliding on the ground. Even though I was only going about 30 mph, I slid for what seemed like 20 yards, barely missing a mailbox. The Bermuda shorts, tennis shoes with no socks and T-shirt I was wearing didn't do much to protect me from the road rash that took off most of the skin on my elbows, forearms, hands and knees. Oddly enough, the helmet — the only appropriate personal protective equipment I was wearing — never hit the ground.

With the adrenaline pumping, I immediately hopped to my feet and picked up the Kawasaki like it was a Huffy. I then rolled it back to the cul-de-sac and apologized to Seth profusely for totaling his prized possession. Like a good friend, he was more concerned about my condition. I told them I felt fine and didn't need to go to the ER. They then pointed out the thick stream of blood running down the driveway from my right shoe. I decided I might need to get that checked out.

The injury was extensive. The brake pedal had scooped a chunk of flesh out of my leg and scraped the bone. Because it wasn't a cut, the doctors couldn't sew it together. I had to spend nearly a month in Walter Reed Army Medical Center undergoing skin grafts and preventive infection procedures due to the scraped bone.

There are several lessons I learned from my accident — the first being proper training is an absolute must. Had I taken the time to get trained and licensed, I likely could have avoided this accident. Without proper training, you only have a license to fail. Proper PPE is also important and probably would have kept me out of the hospital. A long-sleeved shirt or jacket, pants and gloves would have helped prevent the road rash, and heavy leather boots would have helped me avoid the most painful injury I have suffered in my life. Finally, I should have considered the environment I was riding in before I got on the bike. Because the snows had only recently ended, there was still an abundance of sand and salt on the street. When I drove through that sand in the curve, it was a millisecond ride to the asphalt. That's a ride I hope to never take again.

Most aviators have experienced quick weather changes before, during and after a flight. Those experiences, both good and bad, can affect the way you fly for the rest of your career. I'd flown in the clouds with zero visibility during flight school and was grateful for the instructor pilot in the next seat. I'd also flown medical evacuation missions in low-visibility conditions in Iraq. However, nothing had prepared me for the phenomenon known to forecasters and residents around the Great Lakes as "lake effect" snow.

When the Cold Wind Blows

CHIEF WARRANT OFFICER 2 ROBERT KEYES
Company G, 2nd Battalion, 135th Aviation Regiment
Kansas Army National Guard
Topeka, Kan.

We'd been back from Iraq for eight months and were transferring aircraft, one at a time, to Fort Drum, N.Y., to exchange aircraft going through reset. We were on the final leg of our trip to Fort Drum, where we'd take a day off before flying back to Kansas. Up until this point, we'd had an uneventful trip. The weather had been great, there hadn't been any complications and we were looking forward to a trouble-free mission.

But that was about to change.

We were within 30 miles of Fort Drum, flying around the south shoreline of Lake Ontario, when we noticed the visibility dropping off. What had been almost 10 miles of clear weather rapidly shrunk down to five miles as we flew. We tuned in the weather information for Watertown airport — our planned alternative to Fort Drum — trying to figure where the weather was coming from and where it was going. With weather information from both Watertown and Fort Drum airfield, we were hoping to sidestep into clear air and continue. However, the more information we received, the more confused we became. Both airfields, which were only about 15 miles apart, were reporting 10 miles visibility and no ceiling.

As we discussed our options, visibility and ceilings continued to worsen. We slowed down and decided to continue under visual flight rules, staying below the decreasing ceilings to avoid icing conditions and potential aircraft maintenance problems. We contacted Fort Drum tower to advise them of the situation and ask for weather updates. The response we got was confusing, with the controller claiming three miles visibility and 1,500 foot ceilings. Any attempt to speed up was frightening and several times we nearly out-flew our visibility.

Only by staying low and slow were we able to see and navigate appropriately. Fortunately, with coordination from the tower (and no other traffic in the area) we spotted the airfield from two miles out and landed safely, successfully completing our mission.

LAKE EFFECT SNOW

According to The Weather Channel, "Lake effect snows occur when a mass of sufficiently cold air moves over a body of warmer water, creating an unstable temperature profile in the atmosphere. As a result, clouds build over the lake and eventually develop into snow showers and squalls as they move downwind. The intensity of lake effect snow is increased when higher elevations downwind of the lake force the cold, snow-producing air to rise even further."

Lessons Learned

After we landed, we talked with local pilots and the airfield crew and they explained the lake-effect weather phenomenon. No one had briefed us about this before the mission, so we were caught totally unawares. As it turns out, often during the winter months, a cold wind blows across the warm water in Lake Ontario and causes an inland rain or fog to settle on parts of the coastline. Even with prior planning, weather updates and local information, crews can find themselves unexpectedly caught in bad weather. Add to that the fact the information observers provide from the ground may not accurately reflect what is in the air and you have the makings for a truly hairy flight.

The best advice I can suggest if you're unexpectedly caught in rapidly decreasing weather conditions is to follow standard operating procedures, slow down, communicate effectively as a crew and use risk management to decide your best course of action. Others may question the decisions you made and some will argue that you could have done things differently. However, it's a lot easier to play armchair quarterback on the ground than to be in the cockpit facing danger in the air.

COMMANDERS AND SAFETY OFFICERS!

Deploying? Already Deployed?

Want to prevent accident trends specific to your unit's warfighting platform? It's all on one slide and easy to find.

Go to RMIS and access PRELIMINARY CAI REPORTS to obtain the vignette slide that most pertains to your Soldiers' and unit's platform.

RMIS Quick Search

https://rmis.safety.army.mil/

An AKO login is required.

Mission: Route Security/Recon

Hazards
- Materiel Failure- Engine
- Tactical threat
- Failure to follow published emergency procedures

Results
- Aircraft destroyed
- One Soldier permanently disabled
- One Soldier seriously injured

Controls
- During mission planning evaluate aircraft emergency responses in light of the tactical threat
- Ensure crews are familiar with the possible consequences of choosing not to follow published emergency procedures

Mission: Off Duty

Hazards
- Driving while fatigued from a 14.5 hour duty day followed by late night activities
- Failure to use seat belts
- Excessively worn tires

Results
- One Soldier fatality

Controls
- Educate Soldiers on the increa of driving while fatigued
- Continue to reinforce the requ & benefits of using vehicle sa
- Establish & execute appropri inspection programs

nduct Tactical Road Marc

Controls

Mission Essential

CHIEF WARRANT OFFICER 4 MARC ASSUMPCAO
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

In today's fast-paced environment, personnel may take for granted the fact that vehicles and equipment are functional whenever they're needed. However, without thorough inspections and routine maintenance, this reliability won't last. The effects of neglecting assigned equipment include reductions in vehicle performance, safety and other potential problems. If a vehicle is rendered non-mission capable, a weapon is improperly assembled or a radio's batteries are dead, the success of a unit's mission and the safety of personnel are threatened.

As leaders, it's our responsibility to ensure our Soldiers have the resources and fully mission capable equipment to accomplish their missions while in garrison and on the battlefield. We're also charged with safeguarding our Soldiers. Whether preparing for a field training exercise or deployment, preventive maintenance checks and services, pre-combat checks and pre-combat inspections are key components that help units successfully execute missions. When planning, allocate sufficient time for PMCS and PCIs before every mission; don't take these detailed checks lightly. Supervisors should enforce the checks listed in the equipment's technical manual. Doing so will ensure every individual in the formation is safe and that equipment is operational.

Supervisors should plan inspections well in advance and be sure to allocate time for corrective actions should they be needed. Technical inspections validate that scheduled or unscheduled services have been performed. Additionally, they may help prevent unnecessary accidents. Only qualified personnel should perform technical inspections prior to a repair or turn-in of unserviceable equipment.

Comprehensive checks and inspections must be our No. 1 tool to combat those twin enemies against safety — shortcuts and complacency. It's sometimes human nature for people to get comfortable in their surroundings and begin to overlook the application of risk management. Additionally, operators need to be familiar with their equipment technical manuals and checklists. The standards established to conduct PMCS, PCCs and PCIs will determine the unit's ability to perform safely in any environment. Individual Soldiers are responsible for ensuring — through their PCCs — that all equipment needed for the mission is available. In turn, leaders should verify PCIs are conducted and corrective actions are taken on equipment identified as unserviceable. Equipment operators and maintenance personnel must realize safety inspections can be one of the most important accident prevention tools in a unit's safety program. Using trained inspectors to identify faults or malfunctions before an accident occurs will ensure our Army remains safe and strong.

An effective inspection program is a force multiplier that sustains the unit's readiness posture while simultaneously boosting the unit's morale. Usually, inspections primarily focus on finding and recording unsafe conditions. Often ignored are other causes of incidents, such as unsafe actions and systems defects. To have a successful inspection program, supervisors need to invest their time. Prior planning, preparation and training for inspectors are important. Inspectors should know the standard, be trained on the equipment they will inspect and be able to reference the proper technical materials.

> "Inspectors **SHOULD KNOW THE STANDARD**, be **TRAINED** on the equipment they will **INSPECT** and be able **TO REFERENCE** the proper **TECHNICAL MATERIALS.**"

Personal involvement, leadership engagement and supervision at all levels are ways to measure the overall effectiveness of a safety program. Leaders must insist on adherence to established safety rules and standards, while continually evaluating their mission for innovative preventive measures that will enhance the safety program. Safety programs are ever–changing, and a leader's ability to adapt and properly manage a program will help protect our nation's most precious asset — our Soldiers.

AT A GLANCE

Conducting proper inspections on our vehicles and equipment will enable the Army to reduce the number of accidents in our units. Most units have locally produced inspection forms tailored to their needs. Below are some areas of inspection for consideration:

- Preventive maintenance checks and services are conducted on all equipment
- DA Form 5988-E completed and logged
- Vehicle is dispatched
- -10 technical manual is present
- Basic Issue Items are complete and present
- Driver is properly licensed
- Equipment is loaded according to the load plan and vehicle load plan is verified
- First aid kit is complete and present
- Night-vision devices are cleaned and operational
- Fire Suppression Systems are functional and handheld extinguishers are serviceable
- Cargo is secured and tied down
- Prime movers and trailer brake systems are properly connected and operational
- Risk management conducted and risk assessment form is signed by the approving authority

For a more detailed checklist of equipment inspection items, please visit the Driver's Training Toolbox at https://safety.army.mil/drivertrainingtoolbox. If you're looking for materials to set up, maintain or improve your unit's driver training program and ensure the safety of your Soldiers and equipment, then check out this toolbox. It's a web-based product and repository of driver training resources aimed to assist leaders, commanders, master drivers and instructors.

In a Flash

CHRISTINA SHORT
200th Military Police Command
Fort Meade, Md.

Author's note: The names of the individuals mentioned in this story have been changed to protect their privacy.

In 2001, I was a specialist living in a three-bedroom, two-story condo in Hinesville, Ga. My roommates, Lee and Eric, were also specialists and enjoyed having friends over after work and for pre-clubbing get-togethers on weekends. Every Friday, the guys went out, had a good time and, for the most part, came home when the club closed. On Saturdays, they would get up, wash their cars or run errands, and then get ready to go to the club all over again.

Shortly after we moved in together, my relationship with Eric progressed to more than "just friends." We were spending time together outside of the house on Saturdays before the guys went to the club. I didn't enjoy going to the club, so I usually stayed home. Eric always came home, so it didn't bother me that he spent those nights with his friends. Everything was going well for us until one night I will never forget.

It was mid-June and, as usual, Eric and I went out together on a Saturday. By this time, we had picked up a fourth, temporary roommate, Eric's squad leader, Kyle, who was in the process of getting out of the Army. When Eric and I got home that evening, Kyle asked if I was going to the club with them. He didn't know that I didn't go to the club, but since he asked, I agreed to join them and got dressed. However, Eric didn't want me tagging along with the group, and we got into a huge argument in front of our friends. Angry, I changed my clothes and stayed home.

Sometime after midnight, Lee came home from the club, left again and returned for good at 2 a.m. Kyle strolled in about 3:30 a.m., but Eric still hadn't come home. I was pretty angry that he was so late, especially after our earlier argument. When 6:30 a.m. arrived and Eric was still out, I figured I would get even by not being there when he finally came home. I got dressed, gathered my laundry and headed to post.

As I entered a curve near Fort Stewart's main gate, I saw a Pontiac Grand Am similar to Eric's flipped upside down on the grassy area on the side of the road. The driver's side of the vehicle showed heavy damage from where it had struck a tree. When I got to the gate, I asked the guards if they knew what had happened or the identity of the owner of the car. They told me I should go to the MP station. There I was told to go to the Criminal Investigation Division office. Of course, no one was at the CID office, and I was starting to feel like I was being given the runaround. I decided I'd better go home.

When I got home, Kyle was gone. Fearing the worst, I ran upstairs and busted into Lee's room. I told him to

> "A **LOT** of **PEOPLE** were forever **AFFECTED** by the bad **CHOICES** Eric made that day, and we must **LEARN** from his **MISTAKES**. Whether you're the driver or a passenger, **ALWAYS** wear your **SEAT BELT**. It can **SAVE** your **LIFE**."

get up, get dressed and come with me to Eric's battalion. When we got there, I saw Kyle and knew what I was about to hear was not going to be good. Kyle told me Eric was dead and his passenger, whom he was giving a ride home, was in the hospital.

I later learned that after they left the club, Eric, Kyle and some other friends had gone to Hardee's to eat. Afterward, as Eric was taking a friend back to the barracks, he got into a street race with another car. As Eric approached a curve near the main gate doing about 70 mph, his steering wheel locked up and he was unable to maintain control of the car. He then struck a tree and flipped over.

Eric didn't drink, so alcohol wasn't a factor in the accident — but his negligence was. He had received a recall notice from Pontiac in reference to the steering wheel locking, but he never took his car to the dealership to have it checked out. Another thing he didn't do was wear his seat belt. He was ejected from the vehicle and died on impact.

Eric would have turned 21 that year. He left behind a 1-year-old daughter, as well as his mother, brother and a lot of friends who loved him dearly. Eric lost his life because of indiscipline — he got caught up in a street race, didn't wear his seat belt and failed to properly maintain his vehicle by not correcting a known manufacturing defect. Some people believe that when it's your time to go, it's just your time to go. However, I believe it's only your time to go if you were doing everything right and still couldn't prevent it.

A lot of people were forever affected by the bad choices Eric made that day, and we must learn from his mistakes. Whether you're the driver or a passenger, always wear your seat belt. It can save your life. Also, make sure you take care of your car, fixing any defects as soon as you become aware. Life is short. Don't rush it because it could all be over in a flash.«

Editor's note: National Highway Traffic Safety Administration Recall Campaign number 98V320 warned that some 1999 Pontiac Grand Am automobiles might not have their steering wheel retaining nut properly tightened. As a result, the steering wheel could come loose from the steering shaft, increasing the risk of a crash. When owners brought their vehicles to dealerships for inspection, the steering wheel retaining nut was to be checked for correct tightness and tightened if necessary.

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A Shocking Experience

The holiday season has arrived, and the time for decorating is in full swing. Most of us trim the tree, hang the lights and hook up our air-filled, oversized Santa, Rudolph or whatever else we have in our arsenal of decorations. Here is the problem; we forget that our old friend electricity powers most — if not all — of our holiday decorations. What we fail to realize is most outlets are generally 15-20 amps, so overloading them is easy.

WES COLLINS
Twentynine Palms, Calif.

Overloaded outlets increase the potential for shock or electrocution, so here are some helpful hints to keep you safe this holiday season:

- Inspect all electrical decorations for defects or damage. The smallest fray in an electrical cord can have devastating consequences.
- Ensure all bulbs used for lighting decorations are operational and in place. The empty socket in a string of lights exposes users to the potential of electrical shock.
- Daisy chaining (plugging multiple electrical sources in sequence) can cause electrical connections to overheat, resulting in a fire. Following the manufacturer's recommendation is the best course of action to alleviate the potential for overload.

One golden rule I live by is to use heavy-duty extension cords designed to carry the intended load. I never use those light-duty cords — you know, the little flat ones sold for as little as $1.29 at hardware stores. These cords can heat up quickly when they're overloaded and are not good for home decorating.

So, go forth this holiday season and enjoy it without the worries of an electrical fire. Remember, electricity is dangerous and demands respect, so give it the recognition it deserves.

DID YOU KNOW?

Based on data from the National Fire Protection Association and the U.S. Fire Administration, an estimated 240 home fires involving Christmas trees and another 150 involving holiday lights and other decorative lighting occur each year. Together, these fires result in 21 deaths and $25.2 million in direct property damage. For more information on winter and holiday safety, visit the NFPA website at http://www.nfpa.org/. Protect youself and your loved ones this holiday season.

UNSEEN HAZARDS

CHIEF WARRANT OFFICER 4 KRAIG M. LANG
C Company, 4th Battalion, 160th Special Operations Aviation Regiment (A)
Joint Base Lewis-McChord, Wash.

Let's face it, we aviators are can-do people. When confronted with adversity, we find a way to accomplish our mission. However, even with the best of intentions, we occasionally do things we later wish we had done differently.

At about 2 p.m. on Nov. 2, 2006, I gathered the Kiowa Warrior pilots of 6th Squadron, 17th Cavalry Regiment, Fort Wainwright, Alaska, for a pre-mission briefing. I was an OH-58D(R) standardization pilot/instrument examiner, and we planned to conduct winter environmental training in day, night and night-vision goggle modes. Having previously completed the necessary academics, we updated the risk assessment and mission briefing forms to reflect crew changes. We also conducted a collective preflight of the aircraft, highlighting cold weather considerations. I departed for the day portion of the qualifications shortly afterward and returned about 4 p.m. as planned. However, I saw there wasn't going to be enough snow on the ground for everyone to get quality training.

I began the night and NVG portion of the training at 5:30 p.m., and an hour later, the second pilot entered the cockpit so we could begin his training. We conducted several required maneuvers at the airfield before departing the traffic pattern at 7 p.m. We then flew to a training area north of Ladd Army Airfield to conduct terrain flight and confined area

operations. While hunting for snow to land in, the pilot identified an SUV that appeared to be stuck on its side. I assumed the controls and maneuvered the aircraft to get a better look. We saw a light and observed people inside the SUV. Knowing that sub-zero temperatures posed an immediate danger and seeing the condition of the SUV, I decided to land and assess the situation and render appropriate assistance as needed.

I chose a flat open area along a trail 50 meters behind the SUV, which had broken through the ice, and executed an approach and landing. I aligned the aircraft with vehicle tracks on a trail in the landing zone and placed the skids parallel with the ruts, facing the vehicle. Two occupants got out of the SUV. I told the pilot to exit the aircraft and determine if they needed assistance. He opened the right cockpit door and was swinging his leg out when the aircraft settled to its left-rear side. I felt feedback in the pedals and believed the tail rotor contacted something. I'd barely announced that I was shutting down the engine when the aircraft began rapidly settling and listing to the left. The ice below began breaking under the skids and the aircraft sank into a muskeg water hole. Despite my best efforts to prevent it, the rotor blades struck the ground and severed the drivetrain. After the blades stopped, the pilot jettisoned the right door and exited, turning to assist me as I was now submerged in water up to my left armpit. The left chin bubble had broken while settling through the ice, causing water to fill the cockpit.

I completed the emergency shutdown and, as I climbed across the cockpit and out of the aircraft, the pilot immediately pulled out his survival radio and emergency strobe. Using the "Guard" frequency, he contacted a Chinook flying in the airfield traffic pattern. The Chinook immediately responded and began orbiting over the accident scene. As they did, they relayed the situation and location to air traffic control, which sent crash rescue to the scene. I used my cellphone to call our squadron staff duty officer to initiate the pre-accident plan. Due to being wet and extremely cold, my cellphone stopped working and I could no longer assist in the recovery efforts. At minus 18 F, I quickly began to suffer the onset of hypothermia. My required additional cold weather survival equipment was on board the aircraft, trapped beneath the ice. Emergency services arrived on scene within 20 minutes and immediately treated us for hypothermia. We were transported to the hospital for evaluation after the accident scene was secured.

While at the hospital, I reflected on my actions. Could I have helped the individuals stranded in the SUV without having to land like the CH-47 that rendered aid to us? Would I have still landed?

My answer is yes to both. But with regards to landing, I would've approached in a more patient and deliberate manner, aware that not all hazards are obvious. A pilot's desire to help in an emergency must be tempered by understanding the risks involved and applying the necessary mitigation. Even good deeds need to be checked with careful counsel. If we ride to the rescue without mitigating the risks, the next rescue mission may be to save us.

STRAP IN AND SURVIVE

CHRIS HAIRR
TRADOC Safety Office
Fort Monroe, Va.

Do you think seat belts, like leather upholstery, are optional in your vehicle? I can tell you from a personal experience they're not optional — they're essential.

A few years ago, my brother was attending college in a big city when he and a friend decided to go out for a night on the town. Knowing his friend would be drinking, my brother offered to be the designated driver that night. It was a good thing he did.

As they were heading home, another driver ran a stop sign and drove directly into my brother's path. All my brother could do was hit the brakes, slowing the car from 30 to 20 mph as they struck the other vehicle.

My brother and his friend were both in the front seat, and the impact threw both of them forward. My brother was restrained by his seat belt, but his unbelted friend went head-first into the windshield. When the car stopped, my brother had a minor cut on his forehead, which required a few stitches to close. His friend, however, didn't fare so well and suffered serious head injuries. He spent more than a month in the hospital and never fully recovered. Who'd have thought that wearing a seat belt during a 20-mph collision would spell the difference between a minor injury and a permanent disability?

Need more proof seat belts work? Well, a year later, I was involved in a single-vehicle accident. I'd just gotten onto a road and was accelerating to the 55-mph speed limit when I saw a pile of pine straw ahead in my lane. Because of an approaching vehicle, I couldn't dodge into the oncoming lane to avoid the pile. What I couldn't see was a large piece of a fallen tree limb buried beneath the straw.

When my front passenger-side tire hit the branch, it sent my car veering into the oncoming lane. I avoided going off the road into a ditch, but fishtailed when I swerved right to avoid the oncoming car. My car spun and then went off the right side of the road. As it did, one of the tires dug into the dirt and caused my car to simultaneously spin and flip. When everything stopped, my car was upside-down and facing the direction I'd come from. I was still safely in my seat — hanging by my seat belt. But it could have been much worse. Not being a frontal collision, my airbag never deployed. Had I been unbelted and thrown forward, there would have been nothing to protect me.

The crash totaled my car. Also, I'd been heading home from college for Christmas break, so nearly everything I owned was in that car. Many of those things were damaged or destroyed — but that's a small price to pay. After all, while they could be replaced, I couldn't.

I survived with slight tenderness in my right shoulder and some pain in my right ankle where it had gotten caught in the pedals as the car rolled. I'd been going about 50 mph when I crashed, and the way my car spun and flipped, I'd have been dead without my seat belt. I'd likely have been ejected and smeared across the road like the quart of barbecue I'd bought to take home. Not a pretty picture.

How about you? Are you ready to strap in and survive? It's your choice. Consider it carefully because you may well live or die by it.

Snowboarding the Smart Way

JOSHUA TURNER
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Snowboarding is a great way to have fun, but, at the same time, it can also present some real dangers such as blown knees and head injuries. For some, snowboarding involves speeding down steep hills past skiers, boarders and other obstacles. Falls will happen — no matter how good you are — and collisions are relatively common. However, regardless your skill level, taking the time to prepare before heading out will reduce your chances of becoming an accident statistic.

The skier and snowboarder safety code, which is printed on virtually every lift ticket and posted in numerous places around most ski areas, lists some inherent dangers and risks. They include existing and changing snow conditions; bare spots, rocks, stumps, trees; collisions with natural or man-made objects or other skiers; variations in terrain; and the failure of skiers to ski within their own abilities. Winter weather, especially in mountainous terrain, can range from sunny and bright to bitterly cold. Conditions can change rapidly from one extreme to the next, one slope to the other, so it's important to constantly monitor the conditions and recognize the signs of approaching bad weather.

When boarders head up high mountains, they become susceptible to acute mountain sickness, which occurs when a person's body doesn't adapt to its current altitude. The most frequent symptoms include headache, queasiness, tiredness and trouble sleeping. Following these simple guidelines from the Colorado Altitude Research Institute may minimize symptoms of AMS:

- Exercise in moderation.
- Drink more water than usual. When you combine altitude with physical exertion, you need to drink before you get thirsty.
- Eat food high in carbohydrates — such as grains, pasta, fruits and vegetables — and avoid salty foods.
- Limit alcohol consumption. It's tempting to party the evening you roll into a ski town. However, drinking alcohol and cheating yourself on sleep the night before you ski is a big mistake. Use common sense.
- If your symptoms get worse or do not go away after a day or two at altitude, you need to seek medical help. All medical centers in high-altitude communities are used to dealing with these symptoms.

Before you venture out to the slopes, it's important to have the right gear and know how to use it. Here's a list of gear you'll need each time you head up the mountain:

- **Snowboard**. In general, an all-mountain snowboard is the best bet for beginners, rather than a specialty board, which is harder to turn and balance on. Also, the longer a board is, the more difficult it will be to control. Choose a board that is the right length for your size and snowboarding ability.
- **Boots**. As the connecting point to your snowboard, boots are a vital piece of equipment. Make sure to get real snowboard boots (not moonboots or hiking boots) that fit correctly

to keep your feet comfortable and warm. For most beginner snowboarders, soft snowboard boots are easier to control than hard boots. Always keep your boots laced up tight to give your feet and ankles the support they need.

- **Bindings**. Most snowboard bindings are of the strap-on variety, which are compatible with the greatest number of boots. Be sure to keep your straps securely fastened to give you the most control over your snowboard. Some bindings, though, are step-in types. Make sure you get the right bindings for your boots, and have a trained professional at a snowboard shop adjust the angle of your bindings to put your feet in the right positions.
- **Helmet**. As is the case with many sports, a helmet is the most important piece of equipment when it comes to preventing life-threatening injuries. You should wear one any time you go boarding. Get a helmet that fits properly and keep the chin strap fastened to keep it securely in place. Also, make sure to get a real snowboard helmet (not a football or bike helmet) that allows space for your goggles and ventilation on warm days.
- **Goggles and sunglasses**. The sun's rays are considerably stronger at high altitudes than they are at sea level, and when they bounce off the gleaming white snow, they can be a serious threat to your eyes. Sunglasses are the best way to protect your eyes from the sun's rays, but you should also always bring a pair of goggles that are the right size in case it gets cold or begins to snow. Goggles are also better at protecting your eyes from tree branches and other hazards.
- **Gloves or mittens**. Many snowboard gloves include pockets for hand warmers to keep your fingers nice and toasty. If you're still worried about your hands getting cold, however, it's a good idea to wear mittens, which are generally warmer than gloves.
- **Dress in layers**. Layering allows you to accommodate your body's constantly changing temperature. For example, dress in polypropylene underwear (tops and bottoms), which feels good next to the skin, dries quickly, absorbs sweat and keeps you warm. Wear a turtleneck, sweater and jacket. Bring a headband or hat with you to the slopes to help prevent heat loss is through your head.
- **Wrist guards**. When you first learn how to snowboard, you will spend a lot of time falling forward and breaking your fall with your hands. This can lead to broken wrists and forearms, which are very common snowboarding injuries. Be sure to wear rigid wrist guards designed for snowboarding or in-line skating to protect yourself when you fall.

Once you have your gear, it's time to head out, right? Not quite, here are a few more tips you'll need to consider before you strap into your board:

- Make sure you're in shape beforehand. Don't try to ski yourself into shape.
- When buying skiwear, look for fabric that is water and wind resistant. Look for wind flaps to shield zippers, snug cuffs at wrists and ankles, collars that can be snuggled up to the chin and drawstrings that can be adjusted for comfort and aid in keeping the wind out.
- Wear sun protection. The sun reflects off snow and is stronger than you think, even on cloudy days.

Snowboarding is a high-speed extreme sport that exposes individuals to different levels of danger. Each year, snowboarders are seriously injured and some even die due to human errors. Before you attempt snowboarding, have some basic knowledge of the possible risks you may encounter on or off the slopes.

While many consider snowboarding to be a fun and high-adrenaline activity, remember this — before you take on the mountain, keep safety in mind. A little time spent assessing the risks can save a whole lot of time healing or, worse, your family from grieving.

PLAY it SAFE

CHIEF WARRANT OFFICER 2 ROBERT L. NORTON
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New Hampshire Army National Guard
Concord, N.H.

It was a clear, crisp day in New Hampshire's White Mountains as we flew visual flight rules in our UH-60A. Chief Warrant Officer 2 Gray, the pilot in command for this flight, and I had departed the Army National Guard Concord Army Aviation Support Facility for some mountain training. The winds were light enough that we practiced mountain approaches to the helipad atop Mount Washington, not far from an observatory.

We were flying without a crew in the back, and the sun coming through the windows kept us from needing to run the heater. As a result, however, we had very little air circulation in the aircraft. As we hovered over the pad on one of the approaches, the small vent on my pilot-side window popped open and Gray thought he smelled something. I closed the vent, commenting that I hadn't noticed anything unusual.

We decided to land nearby at Twin Mountain Airport to check the aircraft. As we slowed to land and entered effective translational lift, we both immediately noticed something that smelled like burning plastic. Up to this point, nothing in the cockpit suggested any problems and our engine indications were all within limits.

Once we were on the ground, I told Gray that, because of the odor, I suspected we had an electrical problem. He did a walk-around of the aircraft, looking to find the cause. Just as he was finishing, smoke began billowing into the aircraft from the right-rear part of the cabin near the rescue hoist. He immediately reentered the co-pilot's seat and we preformed a dual emergency engine shutdown and exited the aircraft. Fortunately, we had another aircraft in the vicinity. Once the smoke and fumes cleared out of the cockpit, we used our high-frequency radio — which operated on battery power — to contact them.

While the other aircraft was en route, we inspected the No. 2 engine cowling. We discovered the V band clamp connecting the engine to the hover infrared suppressor system baffle deswirler had failed. Looking closely, we could see a one-inch gap between the sections. The smell we noticed was gaskets melting in the No. 2 engine cowling.

The second Black Hawk landed behind us and shut down. Its pilot, CW2 Barnes, walked to our aircraft, stopping to pick up a metal fin lying on the tarmac. We soon identified it as a missing fin from the deswirler. Fortunately, the PC in the other aircraft was our facility maintenance officer, CW5 Gokey. He assessed the damage and took pictures of the area. We then secured the aircraft and left it under the supervision of the local sheriff's department. The UH-60 was recovered two days later.

Upon examination, maintainers found damage to the aircraft's No. 2 engine cowling and HIRSS baffle deswirler. High temperatures also damaged sheet metal in the engine compartment.

What I took away from this incident was that, especially in a peacetime environment, it definitely pays to play it safe. Choosing to land the aircraft at a suitable site and give it an once-over paid huge dividends in this case. I'd hate to think about what could've happened had we headed home fat, dumb and happy and something major failed. «

HOW ABOUT YOU?

Did you ever follow a hunch that something was wrong with your aircraft and later discovered you'd dodged a bullet? That's a story worth telling, especially if it keeps another crew from biting the bullet. Please take a few moments to write down what happened and email it to safe.knowledge@conus.army.mil.

A MOMENTARY LACK OF GOOD JUDGMENT

CHIEF WARRANT OFFICER 4 R. JAMES STEPHENS
F Company, 1st Battalion, 214th Aviation Regiment
Fort Knox, Ky.

As aviators and crewmembers, we are highly trained professionals. We do our job repeatedly to the point of muscle memory. The only thing that changes are the conditions or missions we fly. We are expected to operate with great attention to detail. But once we are off duty, why do we find ourselves taking risks that we might not take on duty?

I was a state highway patrolman a few years ago in Arizona. Just before Christmas, my partner and I took a call for a fatal accident involving a motorcycle and an SUV. An ambulance service from Nevada was en route to the scene and would arrive before us; but for investigation purposes, we had jurisdiction.

The accident was on Highway 93 between Kingman, Ariz., and Boulder Dam, which is on the Colorado River, separating Arizona and Nevada. We left Kingman at a high rate of speed with lights and siren on, cutting through the cold, dark desert. The drive was about 50 miles, so we knew it would take a while to get there.

When we arrived on the scene, traffic was backed up a couple miles in both directions and many people were standing outside of their vehicles. The scene was quiet except for a few vehicles that drivers had left running for heat. In the distance, you could faintly hear occasional radio traffic from emergency vehicles that had arrived about 30 minutes prior.

Emergency responders had already secured the scene and extricated the driver of the SUV. A Life Flight from Las Vegas was also just landing to transport the driver to a hospital. As I surveyed the scene, I noticed there was a large indentation in the SUV's shattered windshield, and the driver's-side door was caved in. The SUV was now off the road and turned 180 degrees from its original direction of travel. The driver's air bag had deployed, probably saving his life.

The driver of the motorcycle was lying faceup in the roadway. His bike was in pieces, scattered about 200 feet across the roadway. As I examined him, I noticed he wore most of his personal protective equipment. Unfortunately, he chose to wear a novelty helmet that did not provide appropriate protection. The whole top of the helmet was missing, as was the man's upper cranium. Brain matter was lying in the road not too far from the body.

The man was traveling from Phoenix to Las Vegas, just as he probably had many times in the past. Witnesses said he'd passed them at a high rate of speed, weaving in and out of traffic before colliding with the SUV. Sadly, this momentary lack of good judgment claimed his life. Now, his family and friends, as well as the driver of the SUV, will have to pay for that bad judgment.

I have been in Army aviation since 1990. Over the years, I've seen numerous decisions and incidents that involved a momentary lack of good judgment. Some paid the ultimate price for it, while others miraculously lived to see another day. My challenge to you is to always have a plan and execute it using sound judgment. With a good plan and sound judgment, you can't go wrong. Don't let your daily routine lead you to becoming complacent. Whether you're riding, driving or flying, always think safety!

Don't Toy with Safety

LISA J. YOUNG
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Aberdeen Proving Ground, Md.

This Christmas, choose toys that will make the holidays safe and memorable for your children. Toys should be a source of fun and learning. Too often, however, children are injured — or even killed — by toys that are not age appropriate, poorly designed or in disrepair. When choosing a toy, make sure to match it to the child's abilities. A toy that is too advanced or too simple for a child may be misused, which can lead to injury.

Keep in mind these handy tips when shopping for toys:

- Think big. All toy parts should be larger than the child's mouth to prevent choking and other injuries.
- Never give any toy with small parts to a child under 3, and keep small parts away from older children who still put toys in their mouths.
- Make sure small parts of larger toys cannot break off.
- Keep deflated or broken balloons away from children. If suddenly inhaled, they can cause suffocation.
- Read the instructions before buying a toy. Look

for labels that give age recommendations and use that information as a guide.

- Hold noisemaking toys next to your own ear to determine whether it will be too loud for a young child.
- Look for sturdy toy construction. The eyes, nose and other small parts on soft toys and stuffed animals should be securely fastened.
- Avoid toys with sharp edges.
- Ensure the tips of arrows and darts are blunt, made of soft rubber or plastic and securely fastened to the shaft.
- Reserve hobby kits, such as chemistry sets, for a child older than 12. Provide proper supervision for children ages 12 to 15.

For information on recent recalls and product safety news, visit the U.S. Consumer Product Safety Commission website at http://www.cpsc.gov/ and the American Academy of Pediatrics website at http://aapnews.aappublications.org/cgi/collection/health_alerts. «

FYI

Manufacturers follow certain guidelines and label most new toys for specific age groups.

AGE-APPROPRIATE TOY SUGGESTIONS

Newborn–1 Year	1–2 Years (Toddler)	3–5 Years (Preschooler)	5–10 Years
Toys for this age group should be colorful and textured to appeal to a baby's sight, hearing and touch.	**Toys for this age group should be soft and able to withstand a toddler's curious nature.**	**Toys for this age group are usually experimental and should imitate the activities of parents and older children.**	**Toys for this age group should help promote skill development, creativity and play with others.**
Large blocks	Cloth and plastic books with large pictures	Books/puzzles with large pieces	Blunt scissors, sewing sets
Pots and pans	Sturdy dolls	Large mega blocks	Card games
Rattles	Kiddy cars	Outdoor toys (swing, sandbox, slide)	Balls/sports equipment/ roller skates
Soft, washable animals, dolls and balls	Musical tops	Crayons, finger paint, clay	Crafts
Bright, moveable objects out of reach of infant	Nesting and stacking toys	Blackboard and chalk	Hand puppets
Floating bath toys	Push and pull toys (with no long strings)	Dress-up clothes	Bicycles
Squeeze toys	Toy telephones	Tea party utensils	Easy computer games

Fatal FOCUS

It's natural for an aircrew to be focused on performing its mission. But what happens when focus crosses the line into fixation? What happens when situational awareness is momentarily sacrificed in a sky crowded with aircraft?

My unit was conducting AH-64D aerial gunnery training at Fort Carson, Colo., in the fall of 2009. I was fresh out of flight school and completed my readiness level progression weeks before starting the gunnery training. I was confident in my skills and out to prove myself. As the newest aviator in the company, I was scheduled to fly with the company standardization pilot — the best risk mitigation available.

The SP had nearly 4,000 hours total flight time. He'd conducted some of my readiness level progression, so I was excited to fly with him for gunnery. We worked together well as a crew and received a perfect score during our table V in the simulator. We'd also scored well in our table VII day and night in the aircraft. I'd done tower duties the week before gunnery and was very familiar with the target sets. I felt confident our table VIII would go well.

When I climbed into the front seat that day, I was completely focused on earning the best possible gunnery score. As it turned out, our day table more than met my expectations and we posted a perfect score. But as we went to the aircraft to complete our night table, focus morphed into fixation. As we took to the air, I became not only blind to the dangers around me, but deaf too.

The gunnery range we were using bordered on the Class D airspace surrounding Butts Army Airfield. In fact, during the outbound and inbound prior to the start-fire line, you're in Class D airspace. Therefore, we not only monitored tower on radio, we also monitored Butts radio, which controlled traffic in the restricted airspace where we were shooting. In addition, we also monitored the battalion tactical operations center frequency along with a simulated FIRES net on which we conducted our table.

As I flew the aircraft and attempted to monitor the radios, I was wearing an integrated helmet and display sight system. The IHADSS provided me a heads-up display for the gunnery shoot that night. On our outbound, I was so busy discussing the IHADSS shot with the SP in the rear seat I never heard Butts tower transmit a traffic advisory. As we turned inbound and readied the gun, I was totally focused on acquiring the target and lining up the shot.

Imagine our surprise when, about 500 meters from the start-fire line, a Bell 206 crossed our flight path from right to left, maybe 250 meters in front of us. We quickly turned right to avoid them and contacted tower about the traffic. They told us they'd tried to contact us after the crew of the 206 reported seeing us, but got no response. Apparently, the crew in the 206 wasn't aware we were maneuvering close to one of the known check points when they turned into our flight path.

We conducted another orbit and finished our table. The shoot went well and we posted the highest score in the battalion, earning recognition as the top crew. But things could have gone much differently. Fixated on the target and devoid of situational awareness, we could've hit another aircraft instead of the target. That's a price no one wants to pay.

Before our next gunnery training, we put out an advisory in the notices to airmen about our operations in the area. We also changed our gunnery aviator procedure guide to discuss airspace operations and specify radio duties. This helped contribute to creating a common traffic advisory frequency for operations in and around Fort Carson's restricted airspace.

As an aviator, I focus strongly on completing my mission. However, I can never become so focused on one task that I let slip the other things necessary to completing the mission safely. When the mission ends, I want to climb out of an aircraft — not be dragged out of its wreckage. «

CHIEF WARRANT OFFICER 2 KYLE PROSOSKI
1st Battalion, 2nd Aviation Regiment, 2nd Infantry Division
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LOST

Editor's note: Information published in the accident briefs section is based on preliminary loss reports submitted by units and is subject to change. For more information on selected accident briefs, email safe.knowledge@conus.army.mil.

AVIATION

CH-47D

CLASS A

- The aircraft entered a dynamic rollover during in-flight landing in dust conditions.
- The aircraft landed hard during an exfiltration landing under night vision goggle conditions. The aircraft came to rest on its left side and caught fire.

CLASS C

- The crew accidentally released the slingload as they were in the process of decoupling the "BARO-HOLD" system during descent. The load was recovered.

OH-58D

CLASS B

- The crew was conducting Basic Warfighter Skills training when the aircraft's left skid contacted the ground. The main rotor system subsequently contacted the ground, causing damage to the main and tail rotor systems as well as structural damage. There were no personnel injuries.

CLASS C

- The crew experienced an engine overspeed condition (118 to 120 percent NR) during level flight at an altitude of 1,000 feet above ground level during readiness level progression training. The instructor pilot entered autorotation and safely landed the aircraft in a farm field, using 80 percent throttle to avoid a second overspeed condition.

MH-60K

CLASS C

- The aircraft's main rotor blade was damaged when it contacted a C-130 aerial refueling drogue. All four tip caps and one blade had to be replaced.

MH-6M

CLASS C

- The aircraft experienced an overtorque condition of 116 percent for 1.1 seconds during a training simulation. The aircraft was shut down without further incident.

GROUND

Personnel Injury

CLASS B

- A Soldier was injured while performing maintenance on a privately owned vehicle with another Soldier. The vehicle's transmission slipped and pinned the Soldier's hand, resulting in the loss of his index finger to the first joint.

CLASS C

- A Soldier was injured when he was launched over the handlebars of his mountain bike. The Soldier was riding downhill and trying to slow the bike when his front tire hit rocks, causing him to wreck.

LOSSES AVIATION — FISCAL 2013 Class A/Fatalities thru October 2012

ATTACK	0/0
RECON	0/0
UTILITY	0/0
CARGO	1/0
TRAINING	0/0
FIXED-WING	0/0
UAS	1/0
TOTAL	2/0

as of Nov. 1, 2012

LOSSES GROUND — FISCAL 2013 Class A/Fatalities thru October 2012

AMV	1/1
ACV	0/0
PERSONNEL INJURY (includes weapons-handling accidents)	0/0
FIRE/ EXPLOSIVE	0/0
PROPERTY DAMAGE	0/0
TOTAL	1/1

as of Nov. 1, 2012

DRIVING

POV

CLASS A

- A Soldier died after his vehicle struck a tree.
- A Soldier died when his pickup truck left the roadway and struck a tree. A passenger in the vehicle was also injured. Alcohol use was a factor.
- A Soldier died when she was ejected from her vehicle during an accident.
- A Soldier died when he lost control of his vehicle in a curve and overturned. The Soldier was not wearing his seat belt and was ejected from the vehicle. Authorities cite fatigue as a contributing factor.
- A Soldier was killed when his vehicle struck a tunnel for unknown reasons.

POM

CLASS A

- A Soldier died when he lost control of his motorcycle on a highway exit ramp. The Soldier was wearing a helmet.
- A Soldier was killed when he lost control of his motorcycle, ran off the road and crashed into a tree.
- A Soldier died after he lost control of his motorcycle and crashed.
- A Soldier was riding with other Soldier and civilian riders when he lost control of his motorcycle and struck a guardrail. The Soldier was wearing full PPE but suffered fatal injuries. He was licensed and had completed all training through the ERC and MSRC.
- A Soldier was killed when he attempted to pass a slower-moving vehicle and collided with an oncoming pickup truck.

CLASS B

- A Soldier suffered injuries to his jaw and wrist, as well as multiple leg fractures, when his motorcycle collided with another vehicle.

LOSSES POV/POM — FISCAL 2013 Class A/Fatalities thru October 2012

CAR	2/2
SUV/JEEP	0/0
TRUCK	0/0
MOTORCYCLE	3/2
PEDESTRIAN	0/0
OTHER* (*Includes vans, ATVs, snowmobiles and bicycles)	0/0
TOTAL	5/4

as of Nov. 1, 2012 — Fiscal Year 2012: 9 — Three Year Average: 7

ARE YOU READY?

ARAP is a Web-based initiative that provides battalion-level commanders with data on their formation's readiness posture.

Sign up for your assessment today!

Wouldn't you like to know if your unit is about to experience a mishap?

Wouldn't you like to prevent the loss of personnel and equipment?

Don't you want to protect your combat power?

ARAP

ARMY READINESS ASSESSMENT PROGRAM

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Active Army, Reserve and National Guard Battalions 2012 Participation Locations

U.S. Locations

Alabama
Alaska
Arizona
Arkansas
California
Colorado
Connecticut
Delaware
District of Columbia
Florida
Georgia
Hawaii
Idaho
Illinois
Indiana
Iowa
South Carolina
South Dakota
Tennessee
Texas
North Carolina
Kansas
Kentucky
Louisiana
Maryland
Massachusetts
Maine
Minnesota
Mississippi
Missouri
Montana
Nevada
New Hampshire
New Jersey
New Mexico
New York
North Carolina
North Dakota
Ohio
Oklahoma
Oregon
Pennsylvania
Utah
Virginia
Washington
Wisconsin

Overseas Locations

Afghanistan
Africa
Bahrain
Belgium
Egypt
Germany
Guam
Guantanamo Bay, Cuba
Honduras
Iraq
Italy
Japan
Kuwait
Netherlands Antilles
Puerto Rico
Qatar
United Kingdom

The signs are all around.

It's up to YOU to recognize and act on them.

KNOW WHAT'S RIGHT

know the signs

DO WHAT'S RIGHT

Training, Discipline and Standards

Training, discipline and standards are the bedrock of our Army, and as Soldiers, you've been taught what right looks like. As leaders, you have a duty and a responsibility to maintain standards in your formation. You also have an obligation to your Soldiers and their families to manage risk and take action to correct problems. In our fight against accidental fatalities, knowledge is the weapon of choice.

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U.S. ARMY COMBAT READINESS/SAFETY CENTER
https://safety.army.mil