WINTER OPERATIONS: DON'T IGNORE THE SIGNS

HOW DID WE DO?
FISCAL 2012 END-OF-YEAR REVIEW

- RANGE SAFETY
- CIRCLE TO LAND
- POV MAINTENANCE

+ DRIVER TRAINING

SCAN HERE FOR KNOWLEDGE ONLINE
Beginning this July, Knowledge content will be housed exclusively online. This decision was driven by both fiscal constraints and the changing media environment. Producing a full-color magazine with a subscription base in the tens of thousands has become prohibitively expensive, especially in this era of funding shortfalls. We’re not the only organization in the Army or the Department of Defense to take this route; in fact, it’s becoming the norm in DoD media.

Most of our Soldiers were raised on computers and video game consoles. They know their way around technology and, according to numerous studies, people in their age group prefer to get their news via the Internet. Printed publications still serve a purpose, but we’ve had to ask ourselves if a hard-copy magazine is really the best way to reach the Soldiers most at risk for an accident. Money may be the only reason for this change, though. Most of our Soldiers were raised on computers and video game consoles. They know their way around technology and, according to numerous studies, people in their age group prefer to get their news via the Internet.

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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. By providing users with up-to-date accident statistics, relevant accident vignettes and guidance, including regulations, training circulars, field manuals, and tactics, techniques and procedures, 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).

The “so what” of this unfortunate incident is that the initial risk management worksheet didn’t discuss modifications to the training. By adding an assault team to the exercise, the unit incurred an additional risk. The Soldiers didn’t have adequate supervision before and during the entry, and rehearsals weren’t conducted using multiple charges. The list could go on and on, but the bottom line is this accident was preventable if leadership had exercised proper risk mitigation and risk management.

We can’t fail fast enough when it comes to hastily modifying training just to achieve desired results. Take time and thoroughly plan your training and remember that if you decide to modify a training event, take the time to perform proper risk management.

When I got there, I was met by the range officer in charge, the range safety officer and multiple levels of leadership from the platoon. I walked over to where the accident happened and saw a pile of gear soaked in blood. Then I started asking questions.

As I discussed the sequence of events with the company commander, he explained that his unit was performing static breaching operations, which consisted of blowing doors for entry purposes. So far so good, I thought. He said that under the supervision of the master breacher, Soldiers were placing two C4-constructed charges on practice doors and initiating the charges. The types of charges used were flex linear and c-charges. Using two charges for redundancy, the flex linear were placed vertically up and down the length of the door, and the c-charge around the door handle to breach the lock. Each scenario was followed by a hot wash/after-action review. The commander had been running the same training conditions all morning and afternoon up until the accident.

Digging deeper, I learned that when the accident occurred, the training had been modified without prior coordination with everyone involved in the scenario. This particular time, an assault team was injected into the training. Ordinarily, this wouldn’t have been a problem; however, since everyone involved wasn’t read in on the modification, this iteration of training became a recipe for disaster.

The training started normally as the demolition charges were placed on the door. When the time fuse was pulled to burn, the team sought cover on the side of the building. The c-charge on the door detonated without issue and, three seconds later, the three-man assault team made their way toward the breach. The first two team members had just made their way through the doorway and the third was still in the entry when the second flex linear charge detonated.

All three Soldiers absorbed the impact of the blast and suffered facial lacerations and fragmentation to the legs and arms. Fortunately, they were wearing proper personal protective equipment, which mitigated further injuries.

He asked, “Jay, who is the approving authority on a risk management worksheet for a demolition range?” I knew this question could only mean one thing… an accident! My hunch was correct; three of our Soldiers received injuries in a training accident involving demolitions. I immediately headed out to the range.

As I pulled into my driveway after a long day at work, the last thing I wanted to receive was a phone call from the brigade S-3.

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When there is an in-flight emergency, every second counts.

It was early on a summer morning in Afghanistan as Chief Warrant Officer 2 Mark Foschetti and Chief Warrant Officer 2 Mike McGann headed back toward Bagram Airfield. Assigned to C Company, 1st Battalion, 10th Aviation Regiment, Task Force Phoenix, they’d completed their mission. Neither could have anticipated their morning was about to change in a way they’d never forget.

“(McGann) was on the controls doing everything he was supposed to and I was on the radio making the calls to the tower, and then all heck broke loose,” Foschetti said. “We heard this crunching snap sound, and I jumped on the controls.”

McGann, who was a junior pilot, initially thought they’d been shot at. He quickly transferred the controls to Foschetti as the helicopter began its 14-second descent from 400 feet in the air. Foschetti barely had time to transmit the words, “We’re going down,” as he tried to regain control of the helicopter. He quickly realized the nose of the aircraft was turning to the right.

“(That’s when) I realized we lost our tail rotor,” he said. “The aircraft has a natural tendency to turn right because the rotor blades spin to the left, especially with the more torque you pull in. The tail rotor system provides anti-thrust to balance the aircraft and keep the nose straight. No one ever wants to lose that.”

Foschetti scanned the area and saw a two-story qualat, or house, in front of them. He said he was unsure if they had enough altitude to clear it.

“We happened to have a beautiful open field right in front of us,” Foschetti said. “I made the decision and I told my wingman, ‘We’re going down.’”

As the helicopter went down, two things came to Foschetti’s mind — keeping the nose of the aircraft up to protect McGann and cushioning the landing at the bottom the best he could. But as he did that, he knew they would be vulnerable to rotating out of control.

“I knew as soon as I pulled in power (to cushion the landing), the aircraft was going to start spinning,” he said. “For a split second, I saw my wife, my two kids, my brother, my mother and father — my immediate family. As quick as it popped into my mind, they were gone and it was time to act, because (I thought), ‘We’re not dying today.’”

But there were other challenges. Foschetti explained that during training, autorotations are started at an altitude of 1,000 feet. “If you keep the aircraft in trim, it takes a while to get to the ground,” he said. However, he was at 400 feet, not 1,000, in an aircraft that could not be trimmed. He feared the Apache would tumble over when it hit the ground.

“Those 14 seconds were the longest autorotation I’ve ever done,” he said.

“We’re OK!”

When the helicopter impacted the ground, both pilots confirmed that they were OK.

“It was so surreal — the whole descent,” McGann said. “The whole thing happened so fast, but at the same time, while it was going on, it felt slow. I remember thinking at the bottom — at the very end — I was afraid of the blades hitting the ground and us toppling over. I remember thinking, ‘This is going to hurt.'”

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As the rotor blades slowed down, the aviators lost radio communication. Foschetti realized they needed to make sure their sister ship that had been flying with them, as well as the Soldiers back at BAF knew what happened and that they were alive.

When the rotor blades finally stopped, both aviators used their experience and instincts. Both Foschetti and McGann served in the Army as enlisted Soldiers for several years before going to Warrant Officer Candidate School and flight school. Foschetti previously served as an Apache armament/electrical systems repairman, while McGann was a military police officer.

“I went into a (communications security) mode, (clearing) my cockpit, getting my goggles, collecting all of my sensitive items,” Foschetti said. “When we got out of the aircraft, I ran to the storage bay to grab our flight bags. In case we had to hot tail it, we’d be ready.”

He stopped and turned around to check on McGann. He saw him on the perimeter with his M-4 doing everything necessary to provide security for the downed crew. But Foschetti also saw something else that brought a smile to his face. Before McGann grabbed his weapon, he’d made sure he had one other “sensitive item” — a stuffed dragon that his 4-year-old daughter, Hope, had sent him.

“It flies with me all the time; it usually sits right on the console,” McGann said. “Before I grabbed my weapon, and before I did anything else, I grabbed (the dragon) and stuffed it under my armor.”

Fortunately, Foschetti and McGann suffered only minor injuries. Foschetti had a cut on his palm and McGann bit his lip and was bleeding. Within 14 minutes, an Air Force emergency helicopter arrived to transport them for medical treatment. After they arrived at the hospital and saw their commander and first sergeant, Foschetti and McGann were instructed to call home.

“I have an unbelievable wife; she’s such a strong woman,” Foschetti said. “There were no tears, she was just happy we were OK. I love that woman.”

**Life Lessons**

Foschetti was recognized in May 2012 by the U.S. Army Combat Readiness/Safety Center for his actions with the Broken Wing Award. The award recognizes aviators whose outstanding airmanship and extraordinary skills minimize or prevent aircraft damage or personnel injury during an emergency.

Foschetti, who serves as his company’s safety officer, said that the experience caused him to change how he briefs his emergency procedures before flights.

“If something happens, have one person watch the perimeter while the other one collects sensitive items and sterilizes the cockpit, then switch it up,” he said. “Needless to say, my inspection of the tail rotor since then has been even more in depth, (even though) there was nothing we could’ve done to see that coming,” he said.

Foschetti explained that the experience gained during the deployment gave a level of experience to the pilots in his unit far beyond what their flying hours would suggest, honing their decision-making skills. He attributes his ability to react properly to the training he received from his instructor pilots.

“(Chief Warrant Officer 4) Sean Richards was my IP (in Afghanistan), and my first IP, Chief Warrant Officer 3 Daxton Barkley, was with me in (my previous unit) and progressed me ... right out of flight school,” Foschetti said. “They were very diligent about the way they taught. I have no doubt in my mind that if it wasn’t for those two and the way that they taught me how to fly, there’s no way I would’ve been able to perform an autorotation like that. I owe my life to those two.”

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**Leaders 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 vignetted slide that most pertains to your Soldiers’ and unit’s platform.

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**Mission: Route Security/Recon**

**Hazards**
- Mode of travel
- Target
- Failure to follow published emergency procedures

**Results**
- Aircraft destroyed
- One Soldier permanently disabled
- One Soldier seriously injured

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Winters can be brutal at Fort Richardson, Alaska. After being stationed there for two years, however, I thought I could handle just about anything winter could dish out. It took a close call to make me realize we cannot become complacent when it comes to winter driving — no matter how familiar you may be with the area.

My platoon leader was fresh out of the Officer Basic Course and wanted to use her Toyota 4Runner to conduct a recon down a tank trail. She told me she had experience driving in the snow, but I thought we could go out and be back within an hour. Against my better judgment, I decided to ride with her instead of signing out a HMMWV from the motor pool. It had snowed a few days earlier and the temperature dropped to minus 20 F. Our recon started out fine, and I was impressed with the 4Runner’s handling. However, as we got farther into the training area, I noticed the vehicle had difficulty handling the ruts as they got deeper and deeper. Then it happened — we got stuck. When I stepped out of the vehicle, I could hardly stand because the snow was so deep. I was a little concerned because no one knew we were out there and we didn’t give the unit a map of training areas. To make matters worse, we were quickly running out of daylight and didn’t have any survival gear. I was able to get the vehicle out of the deep ruts, but we were only free for about five minutes before we got stuck again. At this point, our feet and hands were starting to get cold and we couldn’t get a cellphone signal to call for recovery. The platoon leader hadn’t become acclimated to the Alaskan cold, so I left her at the vehicle to stay warm while I walked up the road to try to find a signal. Eventually, I was able to contact someone, and they came out to recover us. Not surprisingly, my peers, being the gentlemen they are, ridiculed and mocked me with jokes for months. This incident left me with an important lesson learned: Don’t ignore the signs. We ignored all the indicators that taking the 4Runner over the HMMWV was not a good idea. We knew we’d face multiple hazards such as extreme temperatures, snow and ice. Combine the extreme weather hazards with an inexperienced Alaskan driver, inappropriate equipment, a disregard for the time of day and lack of survival gear and you have a recipe for failure. Don’t ignore the signs. Believing your experience can trump hazardous weather conditions could leave you stuck out in the cold. 

Note: This article was published in January 2013. The information regarding winter driving conditions and recommendations may have changed since then. It is always important to stay informed and follow the latest guidelines and best practices for winter driving.
Vehicle rollovers remain a serious concern for units deployed overseas. According to statistics compiled by U.S. Central Command, there were 618 tactical vehicle rollovers in Afghanistan between January 2009 and July 2012, resulting in 23 fatalities and 501 injuries.

As the validation authority for all Reserve component Soldiers deploying around the world, First Army leaders decided to tackle this problem. First Army received feedback from CENTCOM that service members needed additional driver training before deploying. Now, service members mobilizing through Joint Base McGuire-Dix-Lakehurst must complete an improved, comprehensive MRAP driver training program, including additional time behind the wheel and a newly created obstacle course. First Army Division East leaders at Joint Base McGuire-Dix-Lakehurst designed the program to increase driver proficiency and promote safety while reducing injuries and loss of life. The five-day training replaces a three-day model that focused on instruction and familiarization of the M-ATV and MaxxPro, two common MRAP vehicles. Students going through the new training still receive classroom instruction and basic vehicle familiarization, but now they spend more time behind the wheel and have to negotiate an obstacle course in both daytime and nighttime.

The obstacle course features an array of terrain features a deploying service member might encounter overseas, including concrete barrier serpentines, potholes large enough to swallow a tire, narrow passages between shipping containers to simulate an urban environment, uneven slopes and steep inclines. Students also drive their vehicles through a smoke-filled trail to simulate a battlefield obscurant and face high curbs and an 18-inch vertical wall. Service members who have experienced the new training have noted the promotion of safety and overall trust in the vehicle after operating the MRAP through the obstacle course. Under the watchful eye of a master driver, speed and safety are carefully controlled as students negotiate the course. The master drivers ride in the vehicles and provide instant feedback to students on their performance. First Army leadership not only focuses on terrain features, they also ensure communication within the vehicle is a priority, allowing the master drivers to stress the importance of communication while driving. The planning and development of the obstacle course and the improved training model was a joint effort among representatives from First Army, as well as the installation safety office and range control. Joint Base McGuire-Dix-Lakehurst contractors began construction in June 2012, and the obstacle course was validated by the master drivers of the 174th Training Brigade in July. The first group of student drivers navigated the obstacles in August. Upon completion of the five days, students receive a certificate to verify they have met the training requirements. Unit commanders are responsible for issuance of driver’s licenses, per Army Regulation 600-55.

The take-away from the training? Instructors say the training produces confident drivers armed with the necessary skills to safely operate the vehicle over unfamiliar terrain in a combat environment.

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, check out the Driver’s Training Toolbox. The toolbox is a repository of driver training resources aimed to assist leaders, commanders, master drivers and instructors.

The toolbox offers a myriad of tools and resources that reinforce the sound principles of driving. Whether deployed or in garrison, personnel can easily access sample standard operating procedures, presentations, lesson plans, graphic training aids, handbooks, videos and more. Use of these resources will assist Soldiers in the successful and safe completion of their missions and off-duty activities while mitigating the harmful effects of operating Army motor vehicles or Army combat vehicles.

Another component of the toolbox is the MRAP Safety Awareness Site that contains hazard and risk mitigation information and tools to supplement operator and crew training programs.

Users have access to an MRAP safety awareness video, a training support package with a slide presentation and additional safety information. Equipment operator training guides are the newest additions to the toolbox. Visit the toolbox at https://safety.army.mil/drivertrainingtoolbox (AKO login required) and get started today.
Hurrying to the Grave

Sometimes you come to the end of a mission and realize you owe your life more to luck than smart decisions. But Lady Luck is a fickle spirit. She may not treat you so well the next time.

It was nearly 3 a.m. and we were in the last third of our duty day. A flight of three Chinooks had just landed at Tallil Airbase, Iraq, to pick up a group of passengers and fly them to Baghdad International Airport. While all three crews were waiting on the passengers, we gathered to discuss the flight route to BIAP and the weather for the last leg of the night. Our lead aircraft was crewed by a 500-hour pilot in command and a low-time pilot. Chalk 2 contained our standardization pilot, who was serving as the air mission commander, and a pilot just out of readiness level progression training. The tail aircraft was flown by a 1,000-hour PC and a 500-hour PI.

During the update brief, we found out a dust storm forecast to arrive later that day was actually arriving in the next two hours. Since this was our last run and the passengers were being dropped off at BIAP — which was our home base — we decided to go ahead and depart. The flight back would take about an hour and a half.

On the flight back, I began to get a little nervous about the dust storm. As we approached Forward Operating Base Kalsu’s airspace, I called Kalsu Metro and requested an update for the Baghdad area of operation. The briefer told us the dust storm was south of Taji and moving toward BIAP. I updated the rest of the flight and we discussed the possibility of landing at FOB Kalsu to wait out the storm. However, we didn’t want to deal with the problems of securing our aircraft and locating a holding area sufficient for the more than 100 passengers and crew. Also, there was no maintenance support for Chinooks at the FOB.

Operating Base Kalsu’s airspace, I called Kalsu Metro and requested an update for the Baghdad area of operation. The briefer told us the dust storm was south of Taji and moving toward BIAP. I updated the rest of the flight and we discussed the possibility of landing at FOB Kalsu to wait out the storm. However, we didn’t want to deal with the problems of securing our aircraft and locating a holding area sufficient for the more than 100 passengers and crew.

We decided to attempt to beat the dust storm to BIAP, but lost the race. Just south of BIAP, visibility dropped to less than a quarter of a mile. As we continued inbound, I lost sight of lead, so I concentrated on Chalk 2. After about three minutes, I noticed Chalk 2 was climbing, so I climbed with him. By the time we leveled off, I was at 1,000 feet about a mile from the airport. It was then I lost sight of Chalk 2, so I started slowly descending at 40 knots toward the airfield. When I saw the fence line for BIAP, I realized I was on the civilian side of the airport. The approach lights finally came into view and I landed on the runway.

We contacted the other two birds on our internal frequency, and they reported they were ground taxiing over to the passenger terminal. As we taxied, I finally saw them ahead of me. We dropped off the passengers and taxied back to parking.

Motivated by “get-home-itis,” we chose to ignore the dust storm warning and continue to BIAP. Our excuses for doing that would have never stood up in court. Sure, we were fatigued and didn’t want to extend our duty day by stopping at FOB Kalsu. We also didn’t want to deal with securing our aircraft and a holding area for the passengers and crew. Also, we never initiated the instrument meteorological conditions breakup we’d been briefed to do when entering dust storms.

Looking back at the mission, it’s clear we should have accepted the delay and landed at FOB Kalsu. We should have scrutinized the -1 (weather briefing) more closely when we got word the storm was arriving earlier than previously forecast. That information should have been enough to switch our plans and land at FOB Kalsu. Our succumbing to get-home-itis could have lead to the loss of three aircraft and more than 100 lives. That’s a huge price to pay for being in a hurry.

So what about you? How will you balance the risks versus the benefits of hurrying home when faced with dangerous weather? Lady Luck may not be smiling when you try it. Can you afford the consequences if she isn’t? Weigh the options and ask yourself which means more — saving time or lives?
After several months of pleading and negotiating, I finally convinced my wife to let me purchase the motorcycle of my dreams. We had just become debt free — and she wanted to stay that way — so there were two promises I made in order for her to feel comfortable with our decision. First, I had to purchase the motorcycle outright so we weren’t saddled with a monthly payment. Second, I had to attend a motorcycle safety training course.

I gladly agreed with her conditions and immediately began saving up for my dream bike. I stopped eating out and put every dime I could toward my goal. At that rate, however, I realized it was going to take me at least three years to meet my goal of saving $10,000. To speed up the process, I started working a second job on weekends installing burglar alarms and custom car stereo systems.

As I worked toward my goal, I took a beginning rider course at the local college. I even took an advanced motorcycle riding course to get some extra practice on the weekends. Some weekends, my friend, James, and I met at the college parking lot so he could show me how to ride his motorcycle. James enjoyed teasing me about sticking to the agreement I made with my wife about saving the money to purchase the motorcycle outright. I really think he was just trying to get me to purchase my motorcycle sooner than planned so we could start riding together. However, I made a promise to my wife, so I was determined to stick it out.

After about a year and a half, I finally reached my goal. However, because it took me so long to get there, the motorcycle I originally wanted didn’t seem as glamorous. I shopped around for about a month and found a new Honda CBR 1100 motorcycle for the same price I would have paid for a used custom Honda CBR 650 I had previously wanted. Naturally, I opted to get the larger motorcycle. I paid the dealer by check, signed some papers and became the proud owner of a Honda CBR 1100.

As soon as I got home, I called James to let him know the good news. He immediately came over so we could go for a ride. We took the scenic route to the beach, which was about an hour north of my house. Because my motorcycle needed to be broken in, we rode nice and slow, as suggested by the dealer. Man, it felt great to be finally riding.

Over the next several months, James and I rode more and more on the weekends and sometimes even during the week. One day, we decided to ride to the beach to meet some friends that also rode. We planned to ride an hour northeast of Green Wave Beach to a town call Rolling Hills. The road leading to Rolling Hills is known for its twists and turns over a 30-mile stretch. As we were riding, a car entered our lane ahead as it attempted to pass another vehicle in a no-passing zone. Bob, the lead rider, swerved, overcompensated, fell off his motorcycle and then slid for about 30 feet, hitting his head on the asphalt along the way.

Fortunately, Bob was OK because he was wearing his helmet. But he was lucky, as only recently had he begun wearing a helmet. James had convinced him of the importance of wearing the proper personal protection equipment every time he rode. If this accident would have occurred a month earlier, Bob might have been seriously injured, or worse, killed.

After his close call, Bob vowed to enroll in a sport bike rider course offered by the installation safety office. Most installations provide some sort of motorcycle training free of charge for service members. In addition to learning skills to help keep you safe on your motorcycle, you may also qualify for a discount on your insurance premium just for attending.

When I got home that day, I hugged my wife and thanked her for ensuring I had attended a motorcycle training course before purchasing my bike. That promise I kept might one day save my life.
A
s an Army, we’re getting better all the time at safety. I feel confident making that statement given final numbers from fiscal 2012: With 162 accidental fatalities, it was our third-safest year on record and our best since combat operations began more than 11 years ago.

Our leaders, Soldiers, safety professionals and Families deserve credit for this achievement. Without them, the Army Safety Program would be nothing more than regulations and tools dusted off for the occasional inspection. Putting safety into action and living it day in and day out, regardless of mission or duty status, is why we’ve been successful in reducing accidental fatalities, even as we remain engaged in the fight overseas.

Some challenges remain, however, and you’ll find they are old and familiar foes. This article will outline what we’ve gotten right, what still needs work, and how we can get there from here. It’s a different approach from similar articles in the past, but I truly believe we need to move away from talking about losses in terms of numbers and start a new conversation on the lives those figures actually represent.

The big picture

On-duty safety is a stellar success story for our Army. During the past 10 years, the accidental fatality rate — based on a per-capita calculation of fatal accidents per thousand Soldiers — fell 76 percent. The rate is a more practical measure of our safety standing because it takes into account fluctuations in the Soldier population, unlike straight numbers that reflect only losses during any particular year. So even with a force that’s grown and shrunk according to mission needs, the decline in on-duty accidental deaths has continued on a downward trajectory for an entire decade. It gets even better on the ground. Since fiscal 2004, the number of Soldiers killed in on-duty ground accidents has declined 80 percent, a remarkable figure considering the constant training and operational requirements of our ongoing combat mission.

That trend continued during fiscal 2012, with total on-duty fatalities dropping 27 percent from the previous year. Leading the way were decreases of 50 percent or more in Army Combat Vehicle and personnel injury-other fatalities.

As our ground forces have been drawing down overseas, aviation crews are still maintaining an accelerated OPTEMPO both operationally and in training. That pace hasn’t had a profound impact on safety, however. With 12 fatalities, we closed fiscal 2012 only slightly above the previous year, when 11 Soldiers died in aviation accidents. Class A-C accidents were down 4 percent from fiscal 2011, although Class A accidents alone (involving both Soldier losses and/or total loss of aircraft) rose 40 percent during the year. Even so, fiscal 2012 helped sustain the marked improvements seen in aviation safety during the past several years.

Off-duty fatalities were down six percent from fiscal 2011. That number is somewhat deceptive, though, because it was driven largely by significant declines in PI-O losses and accidents involving “other” private motor vehicles (SUVs, trucks, vans, etc.). Accidents in sedans and on motorcycles, along with pedestrian mishaps, actually increased during the year and remained the No. 1 killer of Soldiers, whether on or off duty.

The problems

If you were to read every accident report in the USACR/Safety Center database, one common topic would emerge: human error. Whether due to indiscipline, inattention, complacency, overconfidence or any number of factors, the simple fact is that some Soldiers make bad decisions that result in tragic outcomes. That painful truth spans aviation, ground and off-duty and affects Soldiers of all ranks and backgrounds.

Looking at vehicle trends, we keep seeing the same mistakes. Speeding, nonuse of seat belts, or reckless riding and driving invariably make an appearance in both Army Motor Vehicle and PMV accident reports. In fiscal 2012, two Soldiers died in rented vehicles (involving both Soldier losses and/or total loss of aircraft).
while on duty overseas. Off duty, our youngest Soldiers are most at risk for a fatal PMV-4 accident, especially those at the rank of E-4. Disturbingly, however, NCOs continue to comprise a disproportionate majority of motorcycle fatalities.

Negligent discharges are another area rife with indiscipline. On-duty weapons fatalities have been under control for some time, but losses attributed to privately owned weapons increased during the last fiscal year. A Soldier pointing an “unloaded” weapon at him or herself and pulling the trigger, often after drinking, was the most common scenario in these accidents. Horseplay with weapons, even those assumed to be safe, is a grave error in judgment and perfectly illustrates the issue we have with indiscipline.

The same principle holds true in aviation. During fiscal 2012, human error was to blame in 82 percent of all recorded Class A and B mishaps. Dust landings, power management/aggressive maneuvering, and night vision goggle flights accounted for the bulk of the year’s Class A and B aviation accidents. Aviators always have to be at the top of their game, but especially so in these situations, where mistakes can be brutally punishing.

Safety culture
I firmly believe safety culture is key to reducing accidents and associated fatalities. I’ve talked at length about what safety culture is in my monthly columns in this magazine, so now I’ll share four specific themes to consider when evaluating your unit’s safety culture.

• Safety culture is not separate or distinct from organizational culture. When done right, safety is an ingrained aspect of the organization’s existing culture. A unit’s shared beliefs, values and attitudes all contribute to operational safety and efficiency. Soldiers are the key stakeholders in any culture, and leaders must have their buy-in to make safety pay in their formations.

• Safety must not compete with the organization’s primary mission. Safety complements, not dictates, mission execution. Much of what our Army does comes with inherent risk, but in the thick of the fight, the Soldiers engaged in actual operations control how hazards are mitigated. Leaders must guide them through holistic risk assessments that account for hazards posed by the enemy, environment, materiel, and their own human error, and then give them the latitude to make smart decisions to control aggregate risk.

• Risk management is linked to readiness. Safety keeps Soldiers and equipment in fighting condition. Every loss degrades readiness, regardless of the source. Accidental fatalities are senseless because they can often be prevented, and every death leaves a lasting gap in that Soldier’s unit and Family. To stay ready, Soldiers must stay safe.

• Safety must be an imperative, not a priority. An imperative is a “have to do,” while priorities can shift due to competing demands. Safety can’t slide to the left or right simply because something else might seem more important. In terms of Soldier’s lives, there is nothing more important than safety.

In sum, safety culture fosters an instinctive mindset in Soldiers that translates to their activities both on and off duty. Unlike our other senses, the safety instinct is grown with careful nurturing and mentoring from leaders and a disciplined environment. We’ve got to reach our Soldiers and let them know discipline isn’t punitive — rather, it’s what right looks like! Accidents aren’t left up to fate, and safety is firmly in our control. As a leader, battle buddy, safety professional or Family member, you have the power to effect positive change and save even more Soldiers in the future!

SOLDIERS, CIVILIANS AND FAMILIES: MANAGE YOUR RISK

Check out the USACR/Safety Center tools, products and applications that will not only help make you safer, but also educate your Soldiers, Civilians and Families on the fundamentals of safety.
Circle-to-land is one of the least practiced and most underappreciated maneuvers in the fixed-wing Army aviation community. In the commercial and civilian sector, the maneuver is considered risky enough that many freight operators prohibit their pilots from performing it at night or from doing it at all. However, depending on the mission, pilots may have no choice but to employ the circle-to-land maneuver. And if the first time you practice it is the first time you need it, you could be in serious trouble. I’ll give you a personal example from a flight I had in a C-12.

On a fair day for instrument flight rules training along the eastern seaboard, the forecast showed scattered clouds at 1,000 feet, a few clouds at 4,000 feet and overcast at 10,000 feet. We were inbound to Myrtle Beach International Airport and had requested the VOR/DME-A (with a navigation aid providing the direction and distance to the runway along with a circle-to-land approach). Before descending, I realized the forecast provided a great training opportunity. I could enter the traffic pattern and land on runway 18/36, a north-south runway, choosing to land from either direction.

As we were handed off from center to Myrtle Beach approach, my pilot reviewed and briefed the airport diagram, instrument procedures and notice to airmen. With runway 18 in use, we both agreed we would enter right-closed traffic (flying only right turns in the pattern) upon crossing the minimum descent altitude of 520 feet. A Trouble T (a warning shown in the notes section of the instrument procedure chart) restricted aircraft from circling east of the runway. After receiving the brief from the pilot not on the controls, approach handed us off to Myrtle Beach tower.

We barely broke out of the weather as I executed the instrument approach. Conditions were much worse than ATIS reported, with broken scud intermittent at 600 and 400 feet. At 12.6 nautical miles, I crossed the centerline on runway 18, as indicated on the approach plate, and turned right to land downwind. But with winds worse than predicted, coupled with precipitation and reduced visibility, I found my scan jumping more and more between my airspeed, instruments and the obstacles outside, which included a new tower and other buildings being erected inside the traffic pattern. There was also a crane located closer to my traffic pattern than I had expected — the NOTAMs didn’t lie. I realized as I corrected for the winds that if I flew a wider pattern, I would be in the clouds as well. With limited visibility flying a tight, modified downwind approach — conditions that didn’t permit a standard traffic pattern altitude — we conducted the before-landing check. We got two red and one green on the landing gear check, so we recycled the landing gear to ensure all three wheels were down. We flew a modified nose-low descending turn to final, correcting for obstacles in the pattern and the easterly gusting winds.

While we landed without incident, the flight gave me a great appreciation for the tricky nature of the task. I realized that circle-to-land should be practiced several times a month, initially under ideal conditions as well as in moderate weather. I would never want to get into a situation where I needed to execute a circle-to-land approach without first having plenty of practice. Also, all too often, “Murphy” plays a role by giving us an inaccurate weather forecast, a minor mechanical issue or new obstacle to be avoided while landing at an airfield. The best way to stay out of Murphy’s sights is to be practiced and ready with the proper controls. The fact is, when it comes to safety, foresight beats hindsight every time.

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I realized that circle-to-land should be practiced several times a month, initially under ideal conditions as well as in moderate weather.
I began riding motorcycles at 8 years old when my father bought me a little Honda dirt bike. More than 35 years later, I still love the freedom and thrill of riding. I have always considered myself a skilled rider; but before I could register my bike on post, I had to complete the Motorcycle Safety Foundation’s Basic Rider Course. While I didn’t think the course would teach me much or improve my riding skills, I went into it with an open mind. To my surprise, I actually learned something, especially regarding personal protective equipment. That training likely lessened the severity of the accident I thought would never happen to me.

It was early in the morning when I headed out for Fort Stewart, Ga. I was scheduled to start a two-week assignment the next day and wanted to get there early. The ride was going to take about three hours, so I did all the right things before striking out: I inspected my bike, donned the proper PPE and planned my trip with a couple of rest stops along the route. I had only traveled about 65 miles when it happened — an elderly man in a small pickup truck crossed three lanes of traffic, causing me to hit him broadside.

At 55 mph, there wasn’t a lot I could do but brace for the impact and hope for the best. My bike struck the pickup just behind the cab. I had decided to try to get airborne in hopes I could lift my body over the bed of truck. I almost made it, but my left foot struck the side of the vehicle, causing my body to flip violently. I hit the ground on the opposite side of the truck and came to an abrupt stop. I knew I was hurt, but, at that point, I saw that as a good thing. A sheriff’s deputy who witnessed the accident later told me he couldn’t believe someone could survive that hard of an impact. As I lay on the road, I began to assess my injuries. My left foot was at about a 45-degree angle to my leg. I had shattered the left fibula and broken my left tibia. The surgery to repair my ankle took about five hours, and I spent five days in the hospital. Fortunately, after another surgery and a year of rehab, I was able to ride again.

If I hadn’t been wearing the proper PPE I learned about in the Basic Rider Course, things would have turned out a lot differently that morning. The over-the-ankle boots I was wearing helped keep my foot attached to my leg. I was also glad I had spent the extra money to purchase a quality helmet. Even though it shattered on impact, it protected my head when it struck the road. My long pants and a leather riding jacket protected my body from road rash, and my hands were spared by my gloves. While the man driving the truck claimed he never saw me, my high-visibility vest protected me from other drivers that morning. All things considered, I guess I am pretty lucky.
Ergonomics is the applied science of equipment design in the workplace to reduce fatigue and discomfort and increase productivity. Cumulative trauma disorders, repetitive stress injuries and work-related musculoskeletal disorders are synonymous terms. All relate to musculoskeletal and nervous system injuries caused by repetitive tasks, forceful exertions, vibrations, compression (pressing against hard surfaces) and/or sustained awkward positions.

Fatigue and Impairment

In most administrative areas, the source of fatigue or RSIs can often be easily identified by observing the work habits of the individual and/or design of the workstation. For example, individuals who work with a keyboard and/or mouse on top of the desk are at risk of fatigue or RSIs in the back, shoulders, neck, arms and/or wrists. Leaning forward to reach the keyboard puts stress on the lower spine and neck muscles; raising the shoulders to reach the keyboard or mouse will stress the shoulders; and allowing the arm or wrist to lean on the edge of the desk can result in a compression injury. Individuals who sit or slump in a chair without appropriate lumbar spine support risk compressive forces on the lower spine. Even a good task chair can cause pain if it’s not the right size or adjusted properly. Neck or shoulder fatigue for most individuals often starts mid-day, ending soon after the workday is over, which can be attributed to tilting the head forward to view a monitor that’s too low. Tilting the head backward to view a monitor that’s too high can result in neck pain throughout the workday. Fatigue or pain can also result from twisting the head to read documents or holding the phone between the ear and the shoulder, which can increase stress on the neck and shoulder joints and muscles.

Sitting improperly for long periods can result in back pain, as joints can get stiff and dysfunctional when held in one position for multiple hours each day. Other contributors to back pain include slumping in a chair, lack of support from the chair, improper fit of the chair, improper type of chair for computer use, prolonged sitting without a break and overreaching for the keyboard or mouse.

Chairs that are too high leave the feet dangling, and the constant downward pull on the legs can result in lower back pain. Individuals who keep their chair too low risk stress or injury to the ankles, back and everything in-between as a result of “dropping” into the chair. The shoulders, neck and back are also affected when pushing up from a chair that is too low.

Good Ergonomics

Many individuals are not aware that fatigue, stress or musculoskeletal disorders are often the result of poor ergonomics. They blame poor sleeping habits, strenuous workouts, gardening, carrying children, etc. While these are certainly contributors, the stressors of a poor ergonomic work environment may be the significant, or even primary, factor in how a worker feels. The following tips for setting up your equipment can be useful in improving the ergonomics of a work environment.

Keyboard

When typing, the shoulders should be relaxed with the keyboard at or slightly below elbow height and parallel with the forearms. Keep the wrists in a good neutral (straight) position. If the keyboard is

DID YOU KNOW?

If any of the following is true, evaluation of your work area is needed to resolve or reduce the impact of work-related musculoskeletal disorders:

1. Does fatigue/pain start during the workday?
2. Are personnel rolling/stretching their shoulders and neck after the middle of the workday?
3. Does fatigue/pain go away or diminish after the workday is over?
4. Does fatigue/pain disappear during the weekend and start again during the first workday?
5. Are personnel talking about fatigue/pain or other health problems; are they frequently absent?
6. Have personnel sought surgical treatment for musculoskeletal disorders?

on the desktop, ensure the keyboard “feet” are disengaged to avoid wrist flexation.
For most individuals, a good keyboard/mouse tray is recommended. Adjust the tray in a slight negative slope (i.e., the front of the keyboard is higher than the back, which will help keep the tray off the knees and promote straight wrists).

Mouse

Position the mouse as close to the keyboard as possible and at the same height (keyboard/mouse tray users may have to stack the mouse on top of note pads or other material).
Avoid resting forearms or wrists on a sharp edge or hard surface as this constant, direct pressure (i.e., contact stress) may lead to discomfort or injury. If fatigue or soreness occurs in the mousing hand, try using shortcut keys more frequently instead of pointing and clicking the mouse, or switch the mousing hand.

Use the correct mouse for hand size or task — for example, large hands may become fatigued when handling small mousing devices; users who work with graphics, plans design/ review and other similar tasks should use devices specified for that work (versus devices designed for routine word processing).
Try an alternative to a mouse such as a trackball or touchpad, ensuring the device is not awkward to use and does not require overuse of any one part of the hand (e.g., side roller-ball devices).

Chair

Obtain a good, comfortable, appropriate task chair. The chair should be in good condition, equipped with adjustable seat and arm height, not overly contoured, have lumbar support that fits the back well and a seat pan that is deep enough to support the legs.
Maintain good posture (head, neck, spine are aligned) by sitting back in the chair while keeping the feet flat on the floor (or obtain a good foot support device).
Get up, move around and stretch frequently.

Monitor

Position monitors directly in front of you (never to the side where you must twist your neck or body). Adjust the monitor height such that the head does not tilt forward or backward.

Consider a monitor arm for users who have limited desk space or for very tall personnel (monitors can become unstable when raising them too high to accommodate tall personnel).

Individuals with corrective eyewear may need a monitor arm to ensure adjustability for their vision needs (which often changes during the day). Also, some individuals with corrective eyewear may need the monitor lower than the hardware allows (to avoid tilting the head backward when looking through the bottom of the eyewear lens).

Notebook Computer

Avoid using a notebook computer keyboard since it is usually more compact (forcing the shoulders to be drawn inward) and the monitor is too low. When traveling, use an external mouse and keyboard and stack the notebook computer on top of books or furnishings. (Ensure the computer does not overheat.) Use care when carrying the computer. Use a wheeled carrier, backpack or a case with a padded strap positioned across the chest.

Getting Help

While this article discusses common ergonomic issues, some individuals may need one-on-one assistance to correct or improve their ergonomic environment, or program managers may need assistance with ergonomic training. This support is available from the Industrial Hygiene Office, local safety professionals and the U.S. Army Public Health Command.

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.
We watch television, send and receive emails and text messages and make telephone calls daily. You’d think we’d be pretty adept at communicating, right? Not always. Let me share a personal example.

It was just a standard night vision goggle air traffic management flight during winter in Connecticut. One of the pilots in command from my unit was going to take me on a round-robin flight across the state, giving me some more NVG time while working the local airspace. Typically, I wouldn’t be concerned about a simple flight like this, but my past experiences with this particular PC weren’t very good. Nonetheless, we carried on, preflighted the CH-47 and conducted our aircrew briefing. Once complete, we started the aircraft, conducted our hover checks and were on our way.

The first 35 minutes of the flight were uneventful as we flew toward a small airport in Bridgeport. When we made our initial call to the tower, they answered, "Nomad 78, I have you at eight miles northeast of the airport, report three miles and enter the downwind to land runway 29." I responded, "Roger, will call three miles for the downwind to 29." Since our flight heading was 200, I figured runway 29 would be on the right ahead. The problem was I couldn’t for the life of me see the runway, which was just this side of Bridgeport. When we were roughly four miles out, I told the PC about the problem. He responded, "Continue on in."

I obliged and continued inbound, following the needle toward the airport. We made our call at three miles, and I was getting uncomfortable. There were three small fixed-wing aircraft in the pattern, and I still couldn’t see the runway. I wanted to tell my PC I couldn’t see the runway, but decided not to since he’d already told me to continue inbound.

Finally, when we were about a mile out, I told him, "You have the flight controls," adding that I still didn’t have the runway in sight. He didn’t respond, so I repeated myself. Still, there was no response. It turned out he was having the same problem I was, I just didn’t know it.

In the midst of the confusion, he told me to turn left and I did. This only compounded the situation, putting us on the final approach course to runway 29, right in the path of another aircraft. Fortunately, the other aircraft broke off his approach in time to avoid us.

I couldn’t believe what had happened. Something like this just doesn’t happen on a simple ATM flight — but somehow it did. Tower gave us instructions to avoid the aircraft and we headed north to get clear of the airspace. The rest of the flight was rather quiet and uneventful. When we debriefed back at the airport, the PC told me I should have let him know earlier that I couldn’t see the runway.

The lesson from this story is we were both wrong. Should I have been more explicit concerning my lack of situational awareness at the time? Yes, absolutely. Should my PC have let me know he was in the same precarious situation I was in? No doubt about it. We should have been talking, helping each other and working together.

This flight was a lesson on why we get an annual aircrew coordination class. Had we exercised open and clear communication, we’d have had much less drama on the mission that night. Fortunately, this turned out to an opportunity for some lessons learned and not a catastrophic event.

John Donne famously said, “No man is an island,” and that is particularly true for the members of an aircrew. If you want to make sure your number of landings and takeoffs match, then remember communication is the key.
It was April 2005, and I was preparing for my first permanent change of station move to Fort Huachuca, Ariz., from Fort Bragg, N.C. During my monthly checks of my 1999 GMC Sonoma pick-up, I noticed my brakes would soon need replacing. Since I was about to take a long drive across the country, I figured I would replace the front and back brake components beforehand. I had no idea how much that preventive maintenance would later pay off.

After the repairs were complete, my best friend, who had flown in from Phoenix, and I set out on our cross-country adventure. On our first day, we took our time and stopped at a few places along the way, never in too much of a hurry. The second day of our trip put us on the long, open stretch between San Antonio and El Paso, Texas, where there’s nothing but open fields and highway. Little did we know we were about to face what we in the military call a “significant emotional event.”

While traveling along I-10 at the posted speed limit, we came upon a semi-truck in the right lane in front of us. The truck driver was traveling under the speed limit, so I decided to pass him. We entered the left lane well behind the truck to ensure the driver could see us, and proceeded to pass. We’d just made it up to the cab when it everything went wrong. The driver suddenly decided he wanted to be in our lane and started to move over. My friend noticed the truck encroaching upon us and told me to watch out. I laid on the horn to let the driver know he was drifting toward us, but he continued into our lane. At this point, we were traveling at a rate that would not allow us to speed up or slow down sufficiently to clear the truck. Our only option was to hit the median at 65 mph! I veered off the road and stomped on the brakes. The brakes groaned and clacked for what seemed like forever until my little red pickup finally came to a stop in a cloud of dust and dry grass. As the dust — and our hearts — settled, we realized we’d come to rest about 100 or so feet from where the median dropped into a two-lane underpass. We looked at each other and got out of the vehicle to settle our nerves and see if there was any damage to my truck. Satisfied that everything seemed to be in good order, we got back in the truck and continued our trip to Phoenix without incident.

Had I not inspected my truck before I left Fort Bragg, I wouldn’t have noticed the brake system needed servicing and might not have been able to stop in time when the semi cut us off. Just as we require regular inspection and servicing of our military vehicles, equipment and aircraft, we must also inspect our privately owned vehicles and motorcycles just as thoroughly. Regular POV inspection and servicing can prevent you and the ones you love from being another highway statistic. Here are a few tips to ensure your personal vehicle is up to snuff:

• Follow the manufacturer’s scheduled service intervals. Even older vehicles have items that should be inspected and serviced after so many miles or months.
• Set up a personal inspection schedule (a car day) to catch problems in-between regularly scheduled maintenance.
• Have a supervisor inspect your vehicle prior to any trip. This means not just “checking the block” and having them sign a false inspection.
• Regardless if you are mechanically inclined, if something feels or sounds wrong with your vehicle, get it checked out by a qualified mechanic.
• If you do decide to do the work yourself, ensure you use the correct parts for your vehicle and the required torque for all fastening hardware.

Regular POV and POM inspection and servicing exists for a reason. Do not let your vehicle leave you stranded on the side of the road or, worse, six feet in the ground. Take care of your ride and it’ll take care of you. ❝
The crew was conducting a training flight when they experienced a cockpit warning for the left-main landing gear. The crew initiated emergency readiness level progression training. He is expected to be paralyzed from the waist down.

A Soldier was killed when he lost control of his pickup truck and struck a roadside tree. The Soldier was not wearing a seat belt and was reportedly speeding.

A Soldier was killed when he drove his vehicle onto the opposing interstate lanes from a rest stop and collided with an oncoming vehicle. The accident resulted in a third vehicle crash and one other fatality.

A Soldier was killed when the pickup in which he was a passenger left the road and overturned.

Two Soldiers were killed when their vehicle overturned. The driver and another passenger suffered minor injuries.

A Soldier suffered a permanent total disability injury when his bicycle was struck by a vehicle during organized physical training. He is expected to be paralyzed from the waist down.

A Soldier was killed when the pickup in which he was a passenger left the road and overturned.

A Soldier was killed when an SUV entered his lane from a secondary road and struck him. The Soldier was wearing full personal protective equipment.

A Soldier died when his vehicle overturned. The driver swerved to avoid a collision.

A Soldier was killed when an AMV he was riding in overturned. The Soldier was not wearing a restraint harness. Two other Soldiers also suffered injuries.

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A Soldier was killed when he drove his vehicle onto the opposing interstate lanes from a rest stop and collided with an oncoming vehicle. The accident resulted in a third vehicle crash and one other fatality.
The signs are all around. It's up to YOU to recognize and act on them.

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.
GROUND GUIDING: PINNED BY A PLS

KNOWLEDGE
OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

VOL 7 FEBRUARY 2013

LAST RIDE

FINAL PRINT ISSUE!
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SITUATIONAL AWARENESS
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MEASURING UP

One of the perennial questions in safety is, “How do we measure what we’re doing?” Too often, the only metric we have available is how many Soldiers died in accidents during any particular period. We’ve gotten into the habit of looking at those numbers and attributing our safety programs’ success or failure to them. This isn’t necessarily a bad thing; we obviously want the arrow pointing downward on accidental deaths. But, I don’t believe it’s enough to quantify what we do every day with only a single figure — safety is much bigger and more complex than that.

In my mind, metrics should be about accountability, not simply numbers. Getting your unit to 100 percent on training requirements or mandated inspections is a noble goal, but it never falls to a single person or event to do it. We must hold our leaders to task in meeting stated metrics, not just the safety officer and not merely against the number of fatalities to accidents. The same is true for developing metrics; every leader should be involved in the process, and honestly, Soldiers should be too. Talking to your troops will give you a good idea of reasonable goals, and then, based on your experience and judgment, you can dial up the “hard” in the process. Simply making a command decision to reduce accidents by whatever percentage won’t make a workable goal or create an environment where your Soldiers buy in to safety through their own participation in risk management. Properly developed, safety metrics can be part of your unit’s safety culture, provide incentive and inspire achievement.

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Our Army has been in flux for nearly 12 years, but now is the time to buckle down and make safety a lifestyle so we’re prepared for the next war. These long years of combat have taught us just how important safety is for our Soldiers and mission success, and we don’t need to go back to the days of inaction followed by reaction. We’re much better as a force at pragmatic, proactive approaches to safety, and while metrics have been part of that success, it’s the people behind them who have really made the difference. Leaders looking out for Soldiers and Soldiers looking out for each other have turned the tide against accidental fatalities, and they should be the authority on grading your safety performance. Talk, ask questions, listen and put their ideas into action — the best metric you can meet is having a fully engaged unit.

Spring is on our doorstep, so make sure your Soldiers are ready for the risk. Motorcycle and driver training, water safety and responsible drinking are all hot topics for the upcoming season. Schedule a safety stand-down or other dedicated information’s safety culture. Soldier participation in these initiatives is a great indicator of success! I welcome your ideas on safety metrics and how we can better help you and your Soldiers meet your goals. Also, remember to look for the Army Safe Spring Campaign, to be released later this month at https://safety.army.mil. The first step in helping your Soldiers operationalize safety, both on and off duty, is arming them with the information they need to make smart decisions. Check out the campaign, and please let me know your suggestions for future topics.

Thank you for all you do every day, and remember to always play it safe! 

Army Safe is Army Strong!

TIMOTHY J. EDENS
Brigadier General, USA
Director of Army Safety
A few years ago, I was deployed to Iraq with the 5th Squadron, 7th Cavalry, out of Fort Stewart, Ga. We’d just left our outpost and were moving to set up a new one. Once there, my Soldiers and I got busy inside the headquarters setting up walls, radios and other equipment. When our first palletized loading systems showed up, they dropped off their first CONEX next to us. A second PLS then showed up and, while we were outside taking a break, we could hear it backing up. Suddenly, we heard Soldiers yelling for the PLS to stop. My only thought was, “This can’t be good.”

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

For me, this situation was hard because, as Soldiers, we know the right way to do our jobs. On the flip side, we also know the wrong way. Sometimes we take shortcuts because we either want to get the mission completed quickly so we can move on to another task or so we can get home. I learned some non-negotiable ground-guiding procedures that terrible day. It’s my hope that you’ll heed my advice and won’t have to watch a comrade be nearly crushed to death.

- Always have two ground guides when backing vehicles and equipment. Ensure there’s one in the front just off to the side, while the other is off to the side to the rear of the vehicle/equipment.
- Only one ground guide gives signals to the operator. Be sure everyone involved (the operator and ground guides) understands who gives the signals and who receives the signals before any movement is done.
- If sight between the operator and the ground guide making the signal is lost, the operator must stop the vehicle until the signal is again visible or the confusion is cleared up.

I believe in following these simple steps so accidents like the one I witnessed won’t happen again. To me, the accident was sad because the NCO’s career was over the second she stepped behind the PLS. Always make sure you are doing your job as an NCO and lead by example. Never take shortcuts just to finish sooner. It’s better to be late and safe than injured or dead.
It was a cool spring day in Alaska, and my OH-58D squadron was participating in the Air Force’s Red Flag operation. Our task was to help certify new Joint Terminal Attack Controllers for the Air Force. We were to fly as a Scout Weapons Team from our airfield to the range operated by the Air Force. Although it was just 20 minutes as the crow flies from our airfield, we rarely operated in this range due to the high use by the Air Force. Prior to this operation, we had conducted a range familiarization flight with communication checks with the controllers.

The range sits in a valley surrounded by 1,500-foot-tall foothills with deep valleys pouring into the range, which is set up to mimic an enemy airfield. During a training scenario, adversary forces were conducting man-portable air defense operations as enemy air defense artillery. The controllers were going to call in German Panavia Tornado jet fighter bombers to make gun runs on the airfield. Our job was to follow up with Hellfire missiles and close-air attacks. Then the controllers would call in F-16s to attack with a simulated joint direct attack munitions drop, followed by A-10 Thunderbolts making gun runs with their 30 mm cannons.

We had removed our doors and were conducting nap-of-the-earth (very low altitude) flights into the target range. Range control cleared us into the range and instructed us to contact the controllers. Everything went smoothly as we contacted the controllers and were directed to set up an overwatch position. We flew in behind a ridgeline that ran parallel to the enemy airfield and began to observe. I listened as the German pilots checked in and received their target coordinates for their engagement. We slewed our mast-mounted sight to the position and saw their target was an aircraft hangar. The controllers called us and asked for a good target description, and I replied with, “I have an aircraft hangar, three aircraft parked outside and several SA-6 missile platforms surrounding the hangar.” The German pilots called the target and concurred with our observation. Then controllers cleared the Tomados hot, advising them to attack the airfield from east to west according to how the airfield was laid out. The Tornados came down and conducted their simulated runs, destroying the hangar along with four of the SA-6 missiles. We were then asked to engage the other two SA-6s from behind the ridge with Hellfires. Quickly going through the checklist with my left-seat pilot, we were locked onto the target, met all of the constraints and destroyed the other two missiles. Everything went flawless. It was a textbook engagement.

Next it was the F-16’s and A-10’s turn to come in. We were asked to move five miles to the north to clear us from the F-16’s JDAM drop. We were south of the target at the time and relayed to the controllers that we didn’t want to fly over the engagement area. Instead, we would move two ridgelines over
and hold south of the target in a deep valley, one of six or seven that fed into the range. We relayed the coordinates and were given a green light to move there. En route to our holding position, we listened to the F-16s check in and acknowledge the target. The pilots called the time of flight for the bombs and released their simulated ordnance.

Our first mistake was assuming the A-10s would make the same gun runs as the Tornados. We listened as the A-10s were cleared hot to engage from west to east. This caused me to pause and think about how our valley was south of the target, but the ridge turned and fed into the airfield from the west. “OK,” I thought, “that’s different but shouldn’t be a problem. The A-10s would just come straight in from the west and engage.”

When we turned and crossed over the ridge into the valley, I suddenly saw four A-10s at my altitude and closing at more than 300 knots. I immediately screamed over the radio to the controllers that we had another A-10 flight coming into the range. We descended as much as we could, considering we were only 100 feet above the trees. The controllers replied that no other A-10s were in the area. I listened to the A-10s call, “Knock it off — knock it off — knock it off!” The A-10s flew over us and almost caused us to have a midair collision with the A-10s. The A-10s had several avenues of approach to the airfield. No one anticipated they would use our valley to approach from the south and then turn east to attack the airfield. The A-10s weren’t given a hard deck for this mission, which meant they could attack from down in the weeds where we were. All of these factors contributed to a close call.

The margin for error can be quite small when sharing the sky with fast movers. When pilots — whether they are in jets or helicopters — start improvising, the sky can quickly turn into a scary place. And when aircraft surprise each other in the same piece of sky at the same moment, the results can be catastrophic.

"Our **LACK** of situational **AWARENESS**, coupled with no **DEFINED** engagement **LINE**, almost **CAUSED** us to have a midair **COLLISION** with the **A-10s**."
**YELLOW MEANS**

CHIEF WARRANT OFFICER 2 JUSTIN THOMPSON

Company B, 1st Squadron, 17th Cavalry Regiment
Fort Wainwright, Alaska

It was about 9 p.m. and still sunny due to Alaska’s unique sunny due to Alaska’s unique 24-hour schedule. My wife, 2-year-old daughter and I were on our way home from the hardware store after purchasing materials for my weekend project—a swing set. We were all a bit tired, and I was looking forward to parking the truck and enjoying the rest of the evening at home.

As we approached a traffic light, it turned from green to yellow. I judged my distance from the light and the speed I was traveling and figured I could safely make it through. For some reason, though, I pressed the brake pedal and came to a stop just as the light turned red. While stopped, I noticed a semi-truck hauling two cargo trailers heading south on the overpass ahead. After the light turned green, I merged onto the highway heading south on the overpass ahead. After the light turned green, I merged onto the highway.

This highway is the main artery in Alaska, running to Anchorage in the south, Fairbanks in the north and the Canadian border to the east. Needless to say, there was usually a lot of large truck traffic on it, especially late in the day. After merging, the road gradually turns to the left and then back to the right, making a lazy “S” shape. Trees line both sides of the road, which makes these turns “blind.” Due to that fact, passing is prohibited along this portion of the road.

I lost sight of the semi around the first turn for just a second. When I saw the truck again, it was at a dead stop, with debris and smoke everywhere.

The accident involved only two vehicles—the semi, which was heading south, and a northbound sedan. The driver of the semi was traveling the speed limit and not breaking any other traffic laws. The sedan, however, was attempting to pass another vehicle through a blind turn at more than 80 mph. It collided with the semi with such force that the driver, an 18-year-old girl with only a learner’s permit, was liquefied under the dash. Her 21-year-old passenger—who I later learned was a private first class in a ground unit on base—suffered traumatic head injuries and died at the scene. The driver of the semi suffered a broken arm and ribs and was transported to the hospital for non-life-threatening injuries.

The accident scene was horrific. Most of us have seen videos of accidents on safety stand-down days, but this was different. I stopped, got out and ran to the vehicles in an attempt to render any type of aid I could. After checking the status of the occupants, a fire started under the sedan. I put it out with a fire extinguisher I’d grabbed with a fire extinguisher I’d grabbed from the semi. After that, there was nothing more I could do except hold the injured sedan passenger so he would know a Soldier was there and would not leave him. He took his last breath three minutes before emergency response personnel arrived on the scene.

After I got home, I had some time to reflect on the accident. I realized that had I not stopped at that yellow light, my truck with my wife and daughter in it, would have been in front of the semi. When the sedan collided with us, we would have undoubtedly been sandwiched between the two vehicles. I don’t see how there would have been any way we could have survived.

This experience left me with some important lessons learned:

- You never know what is coming around the corner.
- You never run to the sound of gunfire. Take it slow, gather information, assess the situation and then formulate a course of action.
- Focus on the now and plan for the future. Pay attention to your surroundings, but also think one step ahead. That way, when disaster strikes, you’ll have a plan. Even if it isn’t a good plan, at least you’ll have a place to start.
- A wise man once said, “Go slow to go fast.” Had I been in a rush to get home and gone through that light, or had the driver of the sedan not been in a rush to get to her destination, there would have been no story.
- Pick the best person for the job, and never train while under fire. Had the licensed private been driving, not the unlicensed teenager, there may have been another outcome.
- Follow the rules. The rules are there to protect us and others from injury, death and damage to equipment. Never think you are getting one over on “the man” if you break the rules and don’t get caught. You are only cheating yourself out of precious time.

How many times have you approached a traffic light just as it turned yellow and said to yourself, “I can make it?” As you punch the gas and fly through the intersection, you look up and see the light change to red. With a devious grin, you praise your great driving skills. I’ll be the first to admit that I’ve done this countless times with no thought of the danger I might avoid if I would have just slowed down and stopped. However, an accident wasn’t even involved in forever changed my thinking.
Winter driving can be a hazardous task for Soldiers, especially in regions susceptible to a lot of snow. Severe weather can make road conditions unpredictable and treacherous. Even in southern locations, where winters are usually mild, unusual freezing temperatures or unexpected snow and ice may bring driving surprises. In addition to inclement weather, Soldiers are faced with fewer hours of daylight during these months. If proper techniques aren’t applied and Soldiers don’t exercise caution, winter driving could quickly turn into a tragedy.

It’s important drivers prepare themselves and their vehicles for any conditions they may encounter. For most, driving in adverse weather usually takes longer and requires more attention to detail. Before a Soldier gets behind the wheel to perform an assigned mission, they should apply the risk management process described in Field Manual 5-19 and conduct preventive maintenance checks and services.

The threats Soldiers face during winter depend on specific situations and how well they are trained on proper driving techniques. Therefore, leaders should stress the need for Soldiers to attend driver’s training. A well-trained driver will be able to apply winter driving skills and be aware of how cold weather affects a vehicle before, during, and after an operation in order to avoid an accident from occurring.

An important fact to remember is vehicles don’t stop as fast on ice or snow-covered pavement. When preparing to stop, drivers should allow for more time and slow down earlier than usual, especially when driving behind other vehicles. They should also maintain a greater distance between vehicles. Slowing down when following vehicles, in turns or just driving on straight roads will give drivers more time to react in the event of unexpected stops.

Drivers and TCs need to be deliberate in all driving actions. When turning the vehicle, drivers should release the gas pedal slowly and avoid fast, jerky movements. When a pedal needs to be pushed — gas or brake — it needs to be done easily and steady. Road conditions must be observed and weather reports obtained before the mission starts. Even when it’s not snowing, the road could ice up in places where there’s moisture. This will happen more during the overnight hours when it’s colder.

Soldiers also need to apply defensive driving techniques meticulously during the winter months and be alert for other motorists making mistakes on the road. Drivers should approach intersections cautiously to avoid skidding. Rearview mirrors need to be monitored for other vehicles that are traveling too close for the road conditions.

If a driver starts sliding, they should not panic or step on the brakes, which could send the vehicle into a skid. Simply let your foot off the gas pedal and steer the vehicle into the skid. For example, if driving straight and the rear of the vehicle starts sliding left and the front to the right, the driver should steer the vehicle to the left. If the vehicle corrects itself, straighten the wheel. Sometimes a driver will overcorrect, and the vehicle will slide the other way. If this happens, steer again in the opposite direction.

Because winter weather can affect visibility and stopping distances, here are a few tips that Soldiers should apply when driving in adverse conditions:

- Ensure all service drive lights and reflective devices are clean and unobstructed.
- Allow extra time for your mission and reduce speed.
- Increase the distance between your vehicle and the vehicle in front and be certain you can stop within the distance you can see to be clear.
- If visibility is seriously reduced by fog, use headlights and/or fog lights.
- Remember to turn high beams off when they are no longer needed, as they can be a distraction to other drivers.
- Remember the obvious — snow can be seen, but ice isn’t always visible.
- Avoid sudden braking, accelerating too quickly and harsh steering in slippery conditions.
- Keep the windshield clear of snow, and check from time to time that there is not a buildup of snow on the lights.
- Take precautions when crossing intersections when snow and ice are present.

Through proper training, the Army will see accident reductions in our formations. With valuable information and resources accessible in the Driver’s Training Toolbox, every Soldier has the tools needed to complete the mission safely. Visit https://safety.army.mil/drivertrainingtoolbox and get started today. An AKO login is required.
A few weeks ago, I went out to the garage with my son to sharpen a lawnmower blade. Without even thinking about it, I grabbed two sets of safety goggles and face shields for us to wear while I used the bench grinder on the blade.

That made me think — would I have done that 20 or 25 years ago, while I was still young in my Army career? Would it have been almost instinctive to take the proper safety precautions? I don’t think so. I didn’t know as much about safety as I do now. I didn’t know how many people got hurt doing a simple task like using a bench grinder. And I didn’t know how many injuries could have been prevented with the knowledge of basic safety precautions. But I do now.

This “safety sense” has been drilled into my head for 29 years. Sure, it was a slow start. I didn’t always make smart choices right off the bat. But gradually I started to see the light. I saw pictures of preventable injuries that left people disabled for life. I heard statistics about the number of people killed or injured doing dumb things and how many lives are saved each year by something as simple as seat belts.

I used to resent the seemingly constant barrage of safety lectures. However, when I noticed the change that came about in my own thinking because of the Army Safety Program, I realized just how effective it has been. And it’s not just me. The program has been effective in almost every Soldier’s thinking. When you compare the Army population with a demographically similar civilian population, our accident and injury numbers are way lower. Far fewer 18- to 25-year-old male Soldiers die in car accidents than do their civilian counterparts.

We’re doing something right. You may not get much credit for it, but your attitude and discipline are making a big difference. You’re staying alive — and doing it in record numbers. Sure, there have been a few bumps in the road, and not everybody seems to get the message. But overall, we’re doing a great job of not dying or getting hurt.

The importance of our success cannot be overstated. Our success can be measured in cold, hard cash. It can be measured in the combat effectiveness of a unit. But most of all, it can be measured in the fewer letters commanders have to write to grieving parents and spouses. Your life is important on so many levels, and you seem to understand that.

Our success doesn’t mean we can let down our guard and put safety on a back burner. There are new, young Soldiers joining our ranks every day. These young men and women haven’t been brought up to understand the importance and effectiveness of a safety sense. You have. Pay it forward.
I was stationed at Hunter Army Airfield, Ga., in the 3rd Combat Aviation Brigade when I had an incident during a day training mission I’ll never forget.

My unit had recently received our UH-60s back from reset and it was my first pilot in command flight after revalidating in the national airspace system. As PC, I would be conducting four hours of continuation training with two pilots — two hours day flight with one, and two hours of night vision goggles with the other. I had been properly briefed and approved for my single-ship mission and was performing a brief with my crew before heading out to the aircraft for preflight.

Before proceeding to the aircraft, I was informed that another aircraft conducting a readiness level progression flight wanted to integrate formation flight into their tasks. They asked if they could join with my aircraft to accomplish that task. We were once again briefed and approved for multiship mission commander and set out to complete the mission. We then sat down as a flight and briefed the routes of flight (off the reservation) and contingencies. However, when it came to actions on eastbound Blue Route R-3005, we opted to fly the route as published. My aircraft would be Chalk 1 so the other aircraft, as Chalk 2, could conduct formation flight training. I thought nothing of it at the time and proceeded with my preflight and crew brief at the aircraft. Once the flight was up on radios, we confirmed our actions and set out to complete our training.

Everything went smoothly until reaching KP-26 just east of Red Route. KP-26 is almost 90-degree left-hand bend in a dirt road with no identifiable terrain features. About a kilometer away was another significant turn to the right. While most aviators do not fly the route precisely as published — meaning they would ease around the turns rather than doing them aggressively — this day we flew the exact route. I wasn’t prepared when my pilot suddenly turned aggressively to the left, banking more than 45 degrees at 100 knots indicated airspeed. I looked out the green house and saw the belly of Chalk 2 less than two rotor disks away.

Chalk 2’s pilot applied aft-left cyclic and I watched as the aircraft ballooned away from me. Due to the evasive maneuver by Chalk 2’s pilot, the PC — sitting in the left seat — couldn’t see anything of what had just happened. Chalk 2 then conducted a 360-degree turn, reacquired us and continued the flight. Fortunately, both aircraft and crews landed safely, having dodged a near miss, and were still around to gain some lessons learned.

Just as driving accidents often happen close to home, many aviation accidents occur while training in our own backyard. Continuation training has the potential to involve toxic levels of complacency. Every flight, we go out to the aircraft, perform a preflight and run down a crew brief. Aircrews tend to focus on who is flying together, what mission is being performed and if they’re familiar with where they’ll be flying. While all these factors come into play, for something as routine as a continuation training flight, most assume nothing could possibly go wrong. Unfortunately, this complacency — and the assumptions that came with it — is what nearly did in my aircraft and Chalk 2.

My largest takeaway from this incident was not to take anything for granted. More accidents happen during routine missions than nonstandard ones. Ensure you are conducting detailed briefings, especially for flights in which personnel have not flown together. Stay alert to identify possible hazards — even on missions that seem routine. Consider their potential consequences and plan ahead so as not to be the next entry in the statistics column. Complacency doesn’t always result in a lesson learned that you can later talk about. Sometimes it results in a catastrophe.
It was early spring and the weather was just starting to warm up. My friend, Ronnie, and I decided it was a good day to go four wheeling, so we planned to meet later in the desert a few miles behind my house. Since Ronnie was bringing his girlfriend, I decided to invite someone too so I wouldn't be a third wheel. Although I wasn't acquainted with any of my neighbors, I went next door and asked a girl if she wanted to come with us. Surprisingly, she said she would love to go. Everything was set; I would pick her up and we would drive to our riding spot on my Yamaha Rhino side-by-side off-road vehicle.

Once at our riding spot, I began going up and down some steep hills. My neighbor loved it; she was having a blast. We were the only ones out there, so Ronnie and I took turns driving since neither of the girls had ever been on a Rhino. Ronnie didn't have that much driving experience on the Rhino, and when he made a sharp turn on a hill, I got a little scared because these vehicles have a tendency to roll over. I thought about telling him to take it easy on the turns, but I didn't want to call him out in front of his girlfriend. Ronnie continued to go up and down the hill and then flew right past me as he and his girlfriend laughed. When he tried to turn the Rhino again, it overturned and slammed onto its side. The laughter was replaced with screams, and I heard Ronnie yelling my name.

I ran over to them as fast as I could and — surprisingly — lifted up the Rhino back onto its wheels by the roll bar. I then looked at Ronnie's girlfriend and saw that her arm was bleeding profusely. I started to panic. By this time, my neighbor had also reached the Rhino. She immediately grabbed Ronnie's girlfriend's arm and put pressure on her injury. She told me she was a nurse and that Ronnie's girlfriend had an arterial bleed. She said if we didn't get her to the hospital quickly, she would die.
1. Always fasten your seat belt, wear a helmet and other protective gear and keep all parts of your body inside the ROV.
2. Avoid paved surfaces. ROVs are designed to be operated off-highway.
3. Drive only in designated areas, at a safe speed, and use care when turning and crossing slopes.
4. Never drive or ride under the influence of alcohol or drugs.
5. Never drive an ROV unless you’re 16 or older and have a valid driver’s license. ROVs are not toys.
6. Never carry more passengers than the ROV is designed for, and never allow a passenger who is too small to sit in a passenger seat to ride in the ROV.
7. Read and follow the operator’s manual and warning labels.

For additional information, visit http://www.rohva.org/ or the USACR/Safety Center website at https://safety.army.mil.

The Yamaha Rhino is a side-by-side recreational off-highway vehicle, or ROV. There are significant differences between ROVs and traditional four-wheeled all-terrain vehicles. Visit https://safety.army.mil/povmotorcyclesafety for more information.
February 2013 KNOWLEDGE https://safety.army.mil

The Why and Hows of Accident Reporting

While serving as a first sergeant years ago, I was frustrated when an accident report submitted to the U.S. Army Safety Center was returned to me for additional information. Unfortunately, because the accident occurred off duty and my Soldier had been rendered unconscious, I couldn’t provide any additional information.

What I now realize is even more unfortunate — I didn’t understand why the Safety Center was “wasting my time” looking for the information when I had other “more important” issues to deal with in a company of more than 400 Soldiers. As a safety and occupational health specialist currently working at what is now the U.S. Army Combat Readiness/Safety Center, I have a new perspective on accident reporting, a topic that was sadly missing from my educational experiences as a noncommissioned officer. While I was very well versed in Army Regulation 600-20, Army Command Policy, and AR 670-1, Wear and Appearance of Army Uniforms and Insignia, along with many other regulations and Department of the Army pamphlets relevant to my position, I was ignorant of the fact that the 385 series of publications that cover Army safety even existed. I only submitted the previously mentioned accident report because my organization’s civilian safety professional told me to, without educating me on the “hows” and “whys” of accident reporting. Because I didn’t know the requirements to report accidents contained in AR 385-10, the Army Safety Program, and DA Pam 385-40, Army Accident Investigations and Reporting, I failed to report several accidents in accordance with those publications.

So what is an Army accident and why should you report it? An Army accident by definition is an unplanned event, or series of events, which results in one or more of the following:

- Occupational illness to Army military or civilian personnel
- Injury to an-duty Army civilian personnel
- Injury to Army military personnel (on or off duty)
- Damage to Army property
- Damage to public or private property and/or injury to non-Army personnel caused by Army operations

The most important part of the previous question is the why. While Soldiers injuring themselves performing maintenance in the motor pool or playing sports or suffering a heat injury during a training exercise may seem like insignificant, isolated events, these individual incidents may be prevalent across the Army. By accurately reporting accidents in a timely manner, you allow us to identify trends and take action to prevent future occurrences. Shared information regarding accidents has lead to improved policies, procedures and equipment that protect the lives and limbs of our Soldiers. While the actual number of accidents or injuries that really occurred is unknown due to failure to report or delays in reporting, in fiscal 2012 alone, more than 2,000 Soldiers were injured in accidents reported to the USARC/Safety Center. Some of those Soldiers are now permanently disabled, and 161 lost their lives — all to preventable accidents. Those 161 Soldiers are now gone from our formations forever and will never return home to their families and loved ones. There is nothing sadder than seeing a Soldier survive a deployment to a combat zone only to return home and be killed in an accident that could have been prevented.

When we add in the more than 4,000 members of our civilian workforce that were injured on the job and the equipment that was damaged or destroyed in these accidents, the cost to the Army is staggering. Lost lives, decreased mission readiness, millions of dollars worth of medical treatments, worker’s compensation benefits and equipment replacement costs vastly reduce our already diminishing resources. These are costs that we cannot and should not be willing to pay. As the old adage goes, an ounce of prevention is worth a pound of cure. The next time an accident occurs in your organization, take the time to investigate the circumstances and report it. Appropriate action can prevent a similar occurrence near and far.

Accident classes are used to determine the appropriate investigative and reporting procedures. Accident classes are as follows:

a. Class A accident. An Army accident in which the resulting total cost of property damage is $2 million or more; an Army aircraft is destroyed, missing, or abandoned; or an injury and/or occupational illness results in a fatality or permanent total disability.

b. Class B accident. An Army accident in which the resulting total cost of property damage is $2 million or more but less than $5 million, a nonfatal injury and/or occupational illness results in permanent partial disability, or when three or more personnel are hospitalized as in-patients as the result of a single occurrence.

c. Class C accident. An Army accident in which the resulting total cost of property damage is $2,000 or more but less than $2 million, an injury and/or occupational illness results in a fatality or permanent total disability, or when three or more personnel are hospitalized as in-patients as the result of a single occurrence.

d. Class D accident. An Army accident in which the resulting total cost of property damage is $2,000 or more but less than $50,000, a nonfatal injury or illness resulting in restricted work, transfer to another job, medical treatment greater than first aid, needle stick injuries, and cuts from sharps that are contaminated from another person’s blood or other potentially infectious material, medical removal under medical surveillance requirements of an OSHA standard, occupational hearing loss, or a work-related tuberculosis case.

e. Class E aviation accident. An Army accident in which the resulting total cost of property damage is less than $2,000.

f. Class F aviation accident. Recordable incidents are confined to aircraft turbine engine damage but are caused by an unavoidable internal or external foreign object damage, where that is the only damage (not including installed aircraft auxiliary power units). These incidents will be reported using DA Form 2197-AR (Abbreviated Aviation Accident Report); check “F” in the “Accident Classification” block.

I had a steep learning curve as a young Longbow pilot during my first deployment to Afghanistan. Like many young aviators, I assumed the experienced pilot on the controls knew exactly what he was doing and didn’t need my input. But what I learned was a far more accurate truth. I found out through a couple of experiences that when you’re in the aircraft, you’ve got a voice. And you’d better be ready to use it regardless of your hour level or experience.

During a large-scale night air assault, my aircraft and five others were parked in a forward arming and refueling point. After refueling, my pilot in command called to reposition to another area to set up for departure. He picked up our aircraft and began making a pedal turn, which caused me some concern since a Chinook was also repositioning at the same time, preparing to launch. My worry was that power and maneuvering restrictions would deny us the altitude needed to make the turn without contacting the pad, other aircraft or concrete rocket bunkers. Still, I was certain the experienced combat veteran in the back seat was more than capable of executing the turn.

Ninety degrees through the pedal turn, the Chinook’s rotor wash hit us, causing us to either strike the ground or a rocket bunker. At first, I thought we’d hit a bunker with the stabilator. We immediately landed the aircraft and the PC got out and inspected the Apache for damage. There was no damage to the aircraft; only our tail wheel had contacted the ground. When the PC got back in the aircraft, I told him I thought we might have been too low to execute the pedal turn under the conditions. He was adamant that if I had a concern I should have spoken up. He reminded me I was also a capable pilot and speaking up is vital to crew coordination. The lesson learned was no matter how many hours an individual in the cockpit may have, there’s no harm in crosschecking, challenging and verifying what the aircraft or crewmember is doing.

About a month later, I was flying with another experienced PC on a night air assault mission. We were making our approach to an obscure FARP when I noticed the PC’s approach was slightly right of the FARP pads. From my previous experience, I learned it never hurts to ask. Using positive communication, I asked if he was aware he was on a vector to land to the right of the pads. He assured me he could see a chem light marking the pump and fire extinguisher. At about 50 feet, I realized the chem light he was referring to was attached to the helmet of the refueler walking out to the pump. Advising the pilot to come left and that his visual references weren’t accurate, we were able to correct our approach before getting too close to the ground. After landing on the pad, the PC confirmed his visual reference was off and acknowledged everyone is capable of making mistakes, especially during nighttime combat operations.

As professional aviators, Army pilots should always communicate their concerns as effectively as possible in every situation. Piloting an aircraft is extremely taxing and requires a great deal of communication. There’s a reason why there are two rated aviators in the cockpit from takeoff to landing. No matter how experienced or skilled pilots may be, they’re still capable of making mistakes. The ability to communicate positively to validate what the aircraft and crew are doing is essential to safely accomplishing the mission. And, after all, when human lives and expensive aircraft are at stake, isn’t maintaining the safest possible operating environment essential?
It had been a great day at the Atlanta Supercross. Three first-timers and I had driven five hours from Clarksville, Tenn., for the evening show and were determined to have as much fun as possible. We arrived early so we could spend plenty of time in the pits admiring the finely tuned machinery. Unfortunately, all good things must come to an end, and soon it was time for the long trip home. While we didn’t know it at the time, the return trip would provide nearly as much excitement as the races.

We knew the trip home would take a while due to traffic leaving the stadium, so we prepped for driving shifts. The plan called for the pair up front to remain awake while the other two slept in the back. Two hours into the trip, the excitement of the race had worn off, and first team was ready for a shift change. We pulled into a gas station for some refreshments and I then jumped into the driver’s seat while the other sleeper rode shotgun. About an hour into our shift, we ran into a big thunderstorm that drastically reduced our speed. I continued driving at a slower pace, which further added time to our trip. My co-pilot started nodding off as we ran out of topics to discuss, so two hours after we had departed on this leg, I pulled over to swap out drivers. After more refreshments and a crew change, I was asleep in the back in no time.

When the rain finally subsided, the driver set the cruise control and relaxed a bit. Everything was going smoothly when the bottom dropped out of the clouds again. The vehicle hydroplaned momentarily when we drove through some standing water, so the driver decided to turn off the cruise control. Out of habit, he tapped the brakes to disengage, which put the car into an uncontrolled spin though the median and down a grassy divide. Luckily, there was no concrete culvert, and the rain had made the grass slippery enough to slide on without the tires sinking into the ground and flipping the car. Additionally, our plan to rotate drivers allowed us to have alert personnel at the controls to respond to the situation properly. For us in the backseat, all we could do was hold on and brace for an impact. Thankfully, the impact never came, and we came to rest in a lane that had no oncoming traffic. Shaken but uninjured, we drove to the next exit, where we poured out of the car to check for damage.

Fortunately for us, the car sustained no damage, just an accumulation of wet grass and a covering of loamy wet soil. Needless to say, we were no longer drowsy, so we decided to carry on and make the rest of the drive as a team to make it home safely. As we drove, we discussed our near miss. We determined that the driver should have manually disengaged the cruise control with the “cancel” switch/button the moment the rain started. As we found out, even tapping the brakes on a rain-slicked road can send you into a spin.
It was the end of a long Friday evening out with some friends. After a night of partying, my normal routine was to come home and cook something before hitting the sack. This night was no different, and after putting some food on the stove, I decided to lie down for a minute until it was done cooking.

The next thing I remember is waking up in a smoke-filled room to the sound of wailing sirens and someone banging on my door. As I stumbled to the door, I noticed a burning pot on the kitchen stove. Suddenly, a firefighter rushed through the door and quickly extinguished the flames. How could I have forgotten I had food on the stove? And what happened to the smoke alarm? Well, the smoke alarm activated; however, because of the amount of alcohol I drank, I slept through it. Thankfully, a neighbor notified the fire department.

A majority of fatal home fires happen at night when people are asleep. Contrary to popular belief, the smell of smoke may not wake a sleeping person. In fact, the poisonous gases and smoke produced by a fire can numb the senses and put you into a deeper sleep. Inexpensive household smoke alarms issue an audible signal, alerting you to a fire. The sound of the alarm gives you time to escape and cuts your risk of dying in a home fire nearly in half. They save so many lives that most states have laws requiring them in private homes. The National Fire Protection Association reports that almost two-thirds of home fire deaths from 2005-2009 resulted from fires in homes with either no or a nonworking smoke alarm.

According to the Centers for Disease Control and Prevention, alcohol use and the resulting impairment may be the strongest independent factor for death from fire. One study found that intoxication contributed to an estimated 40 percent of deaths due to residential fires. By altering one’s cognitive, physiological and motor functions, alcohol increases the chance of starting a serious fire while, at the same time, reduces the chance of survival from a fire or burn injury. The best ending to a night of partying may be to ensure you have something prepared that doesn’t require cooking, or have food on hand that can be heated in a microwave. Personally, I’d rather wake up and nurse a hangover than a burn injury.

Smoke Alarm Safety
According to the NFPA, smoke alarms are an important part of a home fire escape plan. When there is a fire, smoke spreads fast. Working smoke alarms give you an early warning so you can get outside quickly. Here are some tips from the NFPA that may just save your life:

• Install smoke alarms inside every bedroom, outside each sleeping area and on every level of the home, including the basement.
• Larger homes may need additional smoke alarms to provide enough protection.
• For the best protection, interconnect all smoke alarms so when one sounds, they all sound.
• An ionization smoke alarm is generally more responsive to flaming fires, and a photoelectric smoke alarm is generally more responsive to smoldering fires. For the best protection, both types of alarms or combination ionization and photoelectric alarms (also known as dual-sensor alarms) are recommended.
• Smoke alarms should be installed away from the kitchen to prevent false alarms. Generally, they should be at least 10 feet from a cooking appliance.
• Replace all smoke alarms when they are 10 years old.
• Smoke alarms should be tested at least once a month and batteries replaced at least once a year. Visit the NFPA website at www.nfpa.org/education for more information on how to keep you and your loved ones protected against fires.
My crew and I were on a routine instrument flight rules training mission. Our flight profile was 80 knots indicated airspeed at roughly 300 feet, followed by a climb to 3,000 feet and accelerating to a planned airspeed of 120 KIAS. My co-pilot, Warrant Officer Jeff Davis, was flying the aircraft and monitoring the instruments.

I was backing up Jeff as we climbed when we suddenly heard a loud bang and felt our Black Hawk yaw to the right. We immediately got two master caution lights and the Number 1 GEN CAUTION light. At the time, I was a young pilot with 24 hours of pilot-in-command time and 450 hours total time. My first concern, even before I noticed the caution lights, was that we might lose control. I didn’t know what caused the loud bang, but assumed that whatever caused it also caused the yaw. Jeff announced the right yaw was uncommanded and his master caution light was illuminated. I also announced that I had a master caution light and asked Jeff if he could maintain control of the aircraft. He answered, “Yes,” and I told him to continue with the last clearance given. I briefly monitored my instruments to ensure Jeff was continuing to the assigned altitude and heading.

Once I was comfortable we weren’t descending toward terrain or obstacles, I started concentrating inside the cockpit to diagnose the master caution lights. Ultimately, only the Number 1 GEN CAUTION light remained on, so we continued as directed by air traffic control. I went through the emergency procedure used for a Number 1 GEN CAUTION light and then backed myself up with the checklist. Once I determined the Number 1 generator had indeed failed, I called tower. I informed the air traffic controller that we had experienced a generator failure, but at this point it didn’t seem to be affecting our aircraft. I asked that they provide vectors for the ILS 23 (instrument landing system) approach back to the airport. They immediately switched us to approach control for vectors back to the airport. We executed the approach successfully and landed safely.

As it turned out, the failure we experienced was relatively minor in the grand scheme of things. However, it was still a situation requiring emergency procedures to be performed according to the operator’s manual. My co-pilot acted exactly how I expected him to and performed the necessary actions to ensure this remained a relatively uneventful failure.

I attribute the effectiveness of our actions in the cockpit to a very thorough crew briefing. During that briefing, I stated that in the event of an emergency under instrument meteorological conditions, the pilot on the controls would continue to fly the aircraft and maintain the last assigned heading and altitude given by air traffic control. The pilot not on the controls would serve as a backup and diagnose the emergency at hand. Once the emergency was identified, we would perform the required emergency procedures, backing up our actions with the checklist.

I credit our success as a crew to this simple but concise portion of the briefing. Had I not explained to Jeff what I expected from him, and without him executing the actions as briefed, confusion would have reigned in the cockpit. And that’s not good. A little confusion inside the aircraft can lead to a deadly collision with the ground. By staying calm and following our crew brief, we landed the aircraft safely, ensuring both it and we survived to fly another day.

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On my last permanent change of station move from Atlanta to Fort Rucker, Ala., I faced a common sense versus monetary dilemma. We’d gone over our weight allowance for the move, so I decided to personally transport some items, including our 2006 John Deere LA115 lawn tractor, rather than pay an additional fee. However, this created a new problem — where was I going to put a 450-pound, 69-inch-long, 52-inch-wide tractor?

When we originally purchased the tractor, the store loaned me a trailer, which made transport easy. However, I was already carrying a golf cart on a 5- by 9-foot U-Haul trailer, which didn’t leave any room for the tractor. After some deliberation, I figured it would just fit in the back of my Honda Ridgeline pickup. The trick, however, was how to get the tractor into the truck bed.

I came up with a few courses of action, ranging from backing the tailgate to the edge of a ditch so I could load the tractor, to purchasing or building ramps that would enable me to drive the tractor into the bed. If loading the tractor were the only requirement, then the easiest and most cost-effective approach would be the ditch method. However, I wasn’t sure I would be able to find a location at my new duty assignment to unload the tractor. For this reason, I opted to load the tractor with a ramp system.

At my local hardware store, I found several pre-made ramp systems and build-it-yourself kits that met my requirements. Each offered the user the convenience of fast and safe equipment loading that could be completed by one person. In the end, I elected to purchase a ramp that was a little more expensive than I would have preferred. However, it would easily reach the truck bed from the ground without creating an uncomfortable angle as well as carry the combined weight of the tractor and me.

I went home and read the included safety and operating instructions. By taking the time to do this, I learned there are several safety precautions and steps to take to prevent the ramp from falling off the bed or the tractor rolling off the ramp and toppling over onto the driver. I thought just using ramps would be safe enough. But I have to tell you that when I was in the middle of driving my tractor into the truck bed — about four feet in the air, halfway from the ground to the truck bed — I was glad I took the time to read the directions and follow the instructions.

In the end, after a minor personal expense, I safely loaded, transported and unloaded the tractor from the bed of my truck and kept our freight weight on the moving truck down to the prescribed limit. Most of all, I gained a new appreciation for taking the time to use the right tools for the job.
A Soldier died when he fell off of the back of a pickup and was struck by another vehicle.

A Soldier suffered a permanent total disability and three others were injured when their vehicle entered a median and overturned multiple times.

A Soldier died of injuries he suffered when his motorcycle was struck by a vehicle that entered his lane during an intersection.

A Soldier died when he was thrown from his motorcycle after striking and killing a pedestrian who was crossing the roadway. The Soldier was wearing a helmet.

A Soldier died after he lost control of his motorcycle and was thrown to the ground, striking a vehicle parked on the roadside. The Soldier was wearing a helmet.

A Soldier was killed when his motorcycle was struck by a train as he attempted to drive through a railroad crossing while the warning arms were lowered.
The signs are all around. It’s up to YOU to recognize and act on them.

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.
REDEPLOYING SAFELY

WEATHER BRIEFS
HOUSEHOLD CHEMICALS
PMV MAINTENANCE

WANDERING RIDERS
It's March, and that means it's time for another talk about driving safety. As a leader, you know that's just what your Soldiers want to hear, right? Few things elicit more groans from Soldiers than the mandatory safety brief. I'm of the belief, however, that since safety briefings are required, we might as well make them useful and enjoyable experiences.

Getting the message across in safety briefings, but keeping it fun, isn't hard. For the most part, Soldiers really aren't a tough crowd. They share common general experiences and get what it's like to be in the Army today. That means you don't have to be a master comedian or mind reader to relate to them. All safety briefs do need to have a few things in common, though.

First, have an idea of what you want to discuss, but keep the floor open for conversation — and humor. Drinking, driving and motorcycles should always be part of your briefs, but you'll want to cover those things unique to your local area too, like water safety if a lake or beach is nearby. It's also possible your Soldiers will come up with issues you haven't thought of yet. It's important to give them the opportunity to identify their own concerns and talk about solutions amongst themselves. This interaction makes them an active part of the safety process, rather than a passive participant in a top-down event.

Second, keep your safety briefings relevant to not only what your Soldiers are doing, but what's happening in Army accidents in general. Indiscipline is a huge topic in safety right now, and chances are at least a few of your Soldiers are making unwise decisions off duty. As an engaged leader, you should know who they are, but everyone could benefit from a discussion on the subject. Even your most straight-laced Soldiers are bound to be tempted by 

indiscipline sometime, and it's better they go into the situation ready to make smart choices. The USACR/Safety Center's preliminary loss reports, which detail every fatal accident in the Army and link to outside resources like news reports and obituaries, are a very effective tool for reinforcing the negative effects of indiscipline. Few things speak more clearly to Soldiers than real-world examples of how one bad decision led to the end for someone just like them.

Third, don't use safety briefings as a tattle session. No one should be standing around with a clipboard taking notes about who's doing what wrong, nor should that time be used for punitive action. Keep the atmosphere light enough that your Soldiers will talk, with both you and their buddies, about how to stay safe during the weekend. Peer-to-peer mentoring is crucial in safety, because you won't be hanging out with your Soldiers during their down time; they'll be around each other! We have to keep the conversation open so when they're out on their own, they continue it as a group.

Finally, think beyond the typical safety brief. Just because your unit's always done their briefings a certain way doesn't make it right. Today's Soldiers won't necessarily relate to what worked for us when we were young. Keep your briefings fresh, and remember the "brief" — no one wants to sit through a long safety lecture. If you're conducting yours effectively, safety briefs shouldn't take too much time away from the job or your Soldiers getting out the door for the weekend.

If you haven't already, check out the BOSS Safety Awareness Presentation, available on the USACR/Safety Center website at https://safety.army.mil. This is a great tool that incorporates humor into traditional safety topics and is sure to generate discussion among your team. We also just released the online edition of the Army Safe Spring Campaign, which includes feature articles and posters to share with your Soldiers.

Remember that spring is when we'll start seeing the creep in driving and motorcycle fatalities. Ensure your Soldiers are current on their training and have adequate personal protective equipment before they hit the road. Their safety is our business, so don't be afraid to be in their business on these critical issues.

Thanks for all you do every day, and I hope you have a wonderful spring!

Army Safe is Army Strong!

Rick Stidley
Command Sergeant Major
U.S. Army Combat Readiness/Safety Center
Back in the 1980s and 1990s, it was comforting to be able to lay the blame for motorcycle crashes on car drivers. We could feel victimized by errant drivers not seeing us or not yielding the right of way. “Damn blind cager!” we could mutter when some driver made a quick left turn across the path of the motorcycle. Well, the situation has changed. Today, about half of all motorcycle crashes in the United States are car/bike collisions, but there are just as many motorcycle crashes where the rider lost control.

It's getting very obvious that too many riders are unable to control their bikes. Over the past few years, U.S. motorcycle fatalities have been hovering around 5,000 per year. About 2,500 of those were single-vehicle crashes; and for every fatal crash, there are approximately 22 “morbid” crashes resulting in serious injuries. One scary scenario occurs when the motorcyclist goes wide in a right-hand curve and collides with an oncoming vehicle. An example of this occurred a couple of years ago on the Olympic Peninsula northwest
of Seattle, where a novice rider was out with some friends on a group ride. She had just learned to ride a couple of months before.

According to newspaper reports, "… the motorcycle failed to negotiate a right curve. The motorcycle crossed the centerline and struck the right-front bumper of a southbound pickup truck that was towing a boat trailer. The rider was pronounced dead at the scene by a deputy coroner."

This isn’t an isolated incident. There have been a huge number of motorcycle crashes where the rider crossed the centerline. There was one situation in Marin County (north of San Francisco) in which a Sunday rider crossed the centerline in a curve just as an SUV was approaching. The rider sideswiped the SUV with considerable force and fatal results. What I found appalling is that a San Francisco motorcycle paper wagged an emotional finger at the SUV driver for failing to see the oncoming rider and getting out of his way. The writer apparently felt that a motorist in Marin County on a Sunday morning should know that bikers use the twisty back roads for high-speed shenanigans.

Of course, survivors, but I say the motorcyclist did it to himself! It’s pretty lame to attempt to pass off the blame for bad riding on others. Even when another motorist does something dumb, a motorcyclist needs to be prepared to get out of the way. In my view, the responsible party is whoever was holding onto the handlebar grips at the moment.

Let’s take a moment to consider why riders might cross the centerline. First, there is the temptation to use the other side of the road to gain a faster cornering line — as if the public roads were somehow a legitimate public racetrack. The temptation to go fast is almost irresistible when riding a high-performance sport bike.

Last summer, at a rally, I overheard a famous roadracer/journalist giving a seminar in which he was attempting to convey the message that riding really fast on public roads was not as enjoyable as riding at a brisk but reasonable pace. He described the previous day’s ride with some companions, in which he noted that they had not exceeded 85 mph all day. For a veteran road racer, 85 mph may seem like dawdling along. But in many states, more than 20 mph over the posted speed limit is defined as “reckless driving,” with hefty fines and the potential for confiscating the motorcycle.

I respect this famous rider, but I have a much different attitude about riding fast on public roads.

**The Pace May Be the Problem**

I suspect that one prime reason for corner crashes is failure to decelerate quickly enough to get the bike down to an appropriate speed for conditions. It’s fun to ride a steady pace with speed controlled only with the throttle, but when sight distance closes up, you can’t see the hazards. More and more, I’m braking when the vanishing point of the road suddenly retracts. Not just rolling off the gas and hoping for the best, but scrubbing off speed quickly.

I’ll admit to having cruised the back roads at an aggressive pace once in a while, but for me, 85 mph on a public road is way too fast. It’s not just an issue of being able to control the bike to avoid running off the road. We face a number of potential hazards out there, including wild animals, gawking tourists, wandering drivers and loose gravel. If you want to avoid running into such things, you need to be able to get the bike stopped within the roadway you can see. To put this another way, you need to be in control of the bike, but you also need to be in control of the situation. Even an experienced road racer with quick responses can’t outfox the laws of physics.
For example, let’s say you are riding a nice, curvy back road. The surface is clean and dry, the curves are nicely cambered and traffic is light. You’re cruising along at about 60 mph, just a little over the posted limit. Ascending a hill, you can’t see over the crest, but it appears the road curves to the left and descends a hill. You’re about 150 feet from the crest, doing 60 mph. What would you do?

- Hold a steady throttle, but watch the situation ahead for possible hazards.
- Roll off the throttle to reduce speed and cover the brakes.
- Transition from throttle to front brake to reduce speed quickly.

If this road were a closed track, you would already know where the pavement goes over the hill, and you would know there are no hidden hazards such as a wandering elk or stalled logging truck. There would be no need to slow down because you know how fast the bike will take the corner without sliding out.

But this isn’t a closed track; it’s a public road, and there could be a hazard just over the hill. Most of us would roll off the throttle and cover the brakes. But at 60 mph, you are covering 88 feet per second. Assuming you have a very quick reaction time of 0.5 seconds, you would eat up 44 feet just getting on the brakes. And even if you are skilled enough to brake to 0.9g, your braking distance from 60 mph would be about 130 feet. Total stopping distance would then be 44 feet plus 130 feet, or 174 feet.

Let’s say you roll off the throttle. That would have about the same effect as stepping on the rear brake, which would possibly slow the bike to 40 mph by the crest of the hill. If you then reached for the brakes, it would take about 30 feet for reaction, plus 60 feet to brake to a stop, a total distance of 90 feet beyond the crest. If you want to check my figures, there’s a handy braking computer at http://hyperphysics.phy-astr.gsu.edu/hbase/crstop.html#c2. What these stopping distances suggest is that if you’re not already on the brakes before you crest the hill, it’s questionable whether you would be able to come to a stop short of a hazard (such as a logging truck pulling out of a side road or a wrecker pulling a car out of the ditch).

**Rolling the Dice**

Of course, there’s a good chance...
that the road goes where you think, and there isn’t a hazard blocking the lane today. Many riders gamble their lives there won’t be a hidden hazard in a blind situation. But, according to the fatality statistics, more than a few riders are losing that gamble.

Four Steps to Stack the Odds

So, if you want to stack the cornering odds in your favor, I have four suggestions. First, hone your balancing/steering/braking skills. You must be proficient at controlling the bike so you can put it exactly where you want it to go. And you should be skilled enough to brake aggressively — even when leaned over. Your goal should be to develop the muscle memory to control the bike without having to think about the details.

Second, make a habit of delayed apexing, even when you have a good view through the corner. Some day, when you suddenly find yourself in an unexpected off-camber or decreasing-radius turn, you’ll be more likely to handle it without a lot of drama.

Third, plan your cornering line entirely within your own lane, even if that means a speed reduction. Frequently borrowing the opposing side of the road is unwise, because other vehicles can appear suddenly when you aren’t prepared. In a crisis, you’ll very likely resort to habits, good or bad.

Fourth, when sight distance closes up, immediately transition from throttle to front brake and get the bike slowed smoothly and quickly to enable a quick stop within your sight distance. When the view opens up, it doesn’t take long to get back up to speed.

I also suggest either avoiding group rides or selecting your group companions carefully. The latest statistics — at least for northwestern states — is that a significant number of crashes are occurring during group rides. The fatal crash video mentioned below gives us some clues about why that is.

FYI

There are many motorcycle crash videos online. One of the most somber is a brief ride in a European country, ending in a high-speed collision with an oncoming rider, shot from a camera taped to the fuel tank. It’s worth watching because once you’ve overcome the shock of the crash, you can replay it and observe the rider of the camera bike making minor mistakes, including increasing speed when another rider passes him. The minor mistakes eventually lead to an excursion across the centerline and a high-speed collision. It seems obvious to me that the camera bike rider just didn’t know how to make his motorcycle lean and turn. To watch the video, click the QR code to the right with your smartphone or visit http://www.ebaumsworld.com/video/watch/80503216.
On my most recent deployment, I was assigned to Task Force ODIN to operate and eventually provide instruction on the MQ-1B Warrior Alpha unmanned aircraft system. Shortly after reporting to Fort Hood, Texas, each UAS operator was assigned to a small 10- to 12-Soldier element as they attended their airframe qualification course. They were then deployed to their theater of operation. All of these events would occur within a six- to eight-month period, so, for the majority of the personnel assigned, this was quite a unique experience.

Like the rest of the Army aviation world, the UAS element performs its mission planning and receives a mission brief as well as a weather brief. On this particular training flight, we went through the usual routine — mission brief, weather brief, preflight, engine run-up, trainee records review and briefing the trainee on his flight requirements. Finally, we were all ready to go.

We had thunderstorms to the north of us and also in our mission area. Since there weren’t any imminent signs of danger in the weather brief, the crew thought nothing of it. After about an
hour or so of instruction on the aircraft operator side (which is typically the left seat), we switched sides to the payload operator side (typically the right seat). It didn’t take us long to become engrossed in the instruction and the ever-so-interesting tasks of the PO side. We soon realized that for some reason the video quality was slowly diminishing. What we didn’t realize was that the grainy video we saw through the infrared lens was actually raindrops. We were so engulfed in looking at the ground that we forgot about panning the camera around to keep an eye on the impending storm!

It didn’t take very long for us to realize this had the potential to be a highly dangerous situation. After updating the mission coordinator on our predicament, the decision was quickly made to return to base. It’s like the old saying: Better late than never! We asked the MC to get us a storm update in hopes we could get out of it and beat it home. It was a long shot; nevertheless, we needed to take it.

Unfortunately, our lack of situation awareness was to blame for our predicament. After going back and looking at the recording, we saw we’d been inside the storm for up to 15 minutes before we realized we were in trouble. The newly designated readiness level one operator at the aircraft controls got his baptism by fire that evening. He had the challenge of dealing with some extremely intense downdrafts along with a laundry list of other dangers that could have all been avoided.

By the grace of God we were all able to work together to fly the aircraft out of the storm and safely recover it by the time the weather arrived at the airfield. Miraculously, the aircraft came back without any damage whatsoever.

What lesson did we learn from this experience? Being aware of the weather when you’re flying a UAS is an essential part of situational awareness. Just because things are calm where you’re sitting doesn’t mean your UAS is cruising smoothly in a cloudless sky. Think about where you’re flying, not where you’re sitting. ☛
Today’s Soldiers understand the importance of mission readiness. We prepare our equipment and we train to ensure we are ready to go. But what about your eyes? Are they ready to go? You know you need protection from dust, wind and ultraviolet and bright sunlight, but how about a 0.15-caliber steel fragment coming at you at 660 feet per second?

Here are the facts: eye injuries are a large part of combat injuries and can lead to blindness. Your sight is important, and the Army’s Military Combat Eye Protection program wants to protect your eyes. To better do that, the Army has teamed with commercial manufacturers to develop, test and field combat eyewear. The spectacles and goggles are tested to meet not only the industry standard, but also the even more stringent military standards. For example, the military ballistic fragmentation standards are five to six times stronger than industry standards for impact protection.

After passing rigorous inspection, Program Executive Office Soldier then places all approved eyewear on the
Authorized Protective Eyewear List. Units and/or Soldiers can choose spectacles and goggles to suit their mission needs. This provides Soldiers the opportunity to check proper fit and ensure the product can accommodate their prescription inserts. The APEL provides assurance that the items have been certified to meet military and industry standards and approved by users downrange.

In a 2009 survey of MCEP users, 33 percent indicated personal experiences where they felt the combat eye protection saved their eye(s) from injury. Another report showed MCEP users had nearly 10 percent less eye injuries in combat operations. The same report also showed a significant decrease in the severity of eye injuries in MCEP users. The U.S. Army Public Health Command monitors battlefield data on eye injuries, and the results clearly show ballistic eye protection works.

The current APEL has six goggles and nine spectacles, and all come with both clear and neutral gray tinted lenses that are interchangeable and replaceable. The products, as well as all replacement parts, have national stock numbers and can be obtained through normal logistic channels. The program also has products that protect from lasers.

For Soldiers who need vision correction, four of the goggles and seven of the spectacles are compatible with prescription inserts (similar to the gas mask inserts). Unfortunately, not all prescription inserts are interchangeable between brands. However, the program office is working to create universal prescription inserts. Until then, it is important to know what brand of MCEP you are issued so your local optometry clinic can order the correct prescription inserts.

Even though different prescription inserts may look alike or be of similar size and shape, any “work around” is not recommended. The APEL items are tested as a “unit” with matching inserts to ensure proper protection. Testing has shown unapproved inserts may shatter upon impact. The shattered pieces can get into the eyes and possibly cause injury. Since August 2011, the APEL logo has appeared on the left temple of all approved goggles and spectacles to make identification of authorized products easier. Make MCEP a part of your readiness. Use it in training and preserve your sight to fight!

To learn more about the MCEP program, the APEL or to see the latest authorized protective eyewear list, go to https://peosoldier.army.mil/equipment/eyewear/.
Out of

STAFF SGT. JORGE PEREZ
C Company, Task Force Marshall, 171st Brigade
Fort Jackson, S.C.
The weather in South Carolina is often unpredictable. I found that out firsthand one summer evening as I left work with clear skies showing only to get caught in a gullywasher a few miles down the road. That wouldn’t have been a problem had I been driving a car. On my motorcycle, however, it nearly cost me my life.

It was dark, and the skies didn’t show any signs of inclement weather as I traveled along Leesburg Road, followed by McCords Ferry Road, on my 1994 Honda VFR 750. But as I turned onto Screaming Eagle Road, I rode into pouring rain. I soon found myself behind a utility tractor-trailer hauling a cherry picker, which began kicking up a great deal of water off the road that impeded my field of view. In an attempt to create additional space between the trailer and myself, I started backing away. Suddenly, my rear tire hydroplaned when I rode through a shallow puddle. I instantly applied light pressure to the front and rear brakes — careful to not lock up the rear tire in an attempt to prevent it from sliding.

Had I been forced to release the rear brake early, it could have caused the motorcycle to flip. Shortly after floating the brakes, I felt the tires regain traction. Then I hit another water puddle, causing the rear tire to sway to the right before quickly swinging back to the left. I instinctively scanned the oncoming traffic as the motorcycle drifted back to the right. I thought, “Jorge, the bike is going down. It’s either your life or the bike.”

With no other options, I pushed myself off the motorcycle with both hands and feet, like a paratrooper leaping out of a plane. I slid about 60 feet down the road, coming to rest on the shoulder. My motorcycle barreled another 100-150 feet down the road, ending up on the opposite side in the tree line.

While some Soldiers may not see the need to wear personal protective equipment, mine likely saved my life. I was wearing my duty uniform, a helmet, reflective vest and gloves. In the midst of the heavy downpour, the gear was of great use.

Despite riding a motorcycle for about a year, I can honestly say the tutelage of my instructor for the Motorcycle Safety Foundation’s Basic and Experienced RiderCourses was of great help. The fundamentals of safe motorcycle riding may have been the difference between survival and death. I now own a 2001 Honda VFR 800 and continue to ride safely without being complacent.
Flying on Fumes

CHIEF WARRANT OFFICER 2 KEITH DOLLIVER
A Company, 5th Battalion, 158th Aviation Regiment
Ansbach Army Heliport, Germany

W e’ve all been there — that “will-I-make-it?” moment. If you’re lucky enough to have avoided that experience, then you’ve heard it from the mouths of others — probably with a few nervous chuckles thrown in. For most, it’s the first, and hopefully last, time as well as a valuable learning point. I had one of those moments. Here is my story.

It had been about a week since we arrived at our operating location. We had flown the route daily, some days with multiple turns, and had a good lay of the land. We were flying humanitarian relief missions and would launch from our airfield, fly up to 40 minutes to a remote staging area, pick up patients and fly them to a Navy hospital ship a few miles offshore for surgery. Given the remote area we were operating in and the distance to our airfield and refueling, our UH-60L was equipped with two full crashworthy external fuel system tanks. We were trained and familiar with CEFS and it was common knowledge that you could expect to get about 4½ hours of continuous cruise flight from a full bag of gas. Our mission profile had us flying hops of seven to 10 minutes from our staging area with substantial ground time for passenger loading and unloading. This gave us significantly more station time.

We’d been conducting this mission for a week and routinely refueled and swapped out crews around the five-hour mark. Normally, by the time we landed (at the five-hour mark), we still had over an hour of fuel remaining
and it was never an issue. This particular day, though, we had an early show. That made fuel, not time, our limiting factor. We departed as on any other day, but with an added eye on fuel checks. I did the routine fuel checks as we entered our mission profile, then closed out and continuously monitored our fuel during the mission.

The five-hour mark was drawing near. According to our fuel numbers, we had about an hour and 20 minutes of fuel remaining. We wondered, “Do we have time for one more load?” We decided we had enough time to take another load of passengers out to the ship and then head back to our airfield for refueling. According to our fuel checks, we’d still have about an hour’s fuel remaining after we dropped off the patients. Feeling confident, we decided we were good to go.

After dropping off the last patients, we proceeded back to the airfield. I started another fuel check for the flight back and closed it out after 15 minutes. This time, however, I noticed we were burning fuel at a slightly higher rate. No big deal, I thought; I’d just continue to monitor and we’d be fine. Ten minutes later, we were still burning more fuel than expected, further eroding our reserve. We were 10 minutes away from landing and down to 400 pounds of fuel. For anyone who’s ever flown with CEFS tanks, you know that’s enough to be nerve wracking. We crested the last hills and entered the city limits. By then we were within five minutes of landing, but we also had less than 300 pounds of fuel and still needed to overfly the city to reach the airfield on the far side. Given our situation, we started looking for places where we could make a forced landing and also scanned for the best route around the city. We decided to skirt the city’s edge and follow the beach. If we had to put the Black Hawk down, that’s where we would do it.

With between 150 and 200 pounds of fuel remaining and both fuel-low caution lights flashing, we were cleared for landing. We flew the straight-in approach down the runway and proceeded to our ramp for shutdown. By that time, we had between 90 and 120 pounds fuel remaining on the fuel gauge. Once we landed, there was some nervous laughter and a few chuckles — but at least we were safe.

We talked about what went wrong during our crew after-action report. When we launched on that final mission, we had plenty of fuel, plus a reserve. We’d been continually doing fuel checks that day during our earlier flight legs and thought we knew what to expect. So why were things so different on that last leg?

As it turned out, we did our earlier fuel checks while flying...
short legs between the ship and shore or in holding patterns at maximum endurance airspeed waiting for the ship’s deck to be cleared. We didn’t think to note the fuel burn rate from our first long flight in the morning as a guide for the fuel required to get back.

What about our common knowledge of CEFS burn rates? We had hundreds of hours in CEFS aircraft, so we should have known what to expect. When I checked the fuel that day during our hops out to the ship and back, everything appeared normal. How could there have been such a big change in our burn rate on that last hop?

The answer, as it turned out, was simple. On our earlier legs, we flew slower and, as a result, burned less fuel. However, on the last flight leg we were operating over water with passengers onboard. As a safety egress precaution for overwater flight, we had opened the cargo doors on both sides of the aircraft and removed the cockpit doors. That created extra drag, which increased our fuel consumption. Our mission nearly ended in catastrophe because we didn’t take that into account. The only thing that saved us was operating by the book and ensuring we had the required reserve when we left the operating area.

What about you? When you plan your reserve, do you take into consideration that the flight profile for your return flight may be different than your mission profile? Remember, you might run out of fuel, but you’ll never run out of gravity.

**WITH** between **150** and **200 POUNDS** of **FUEL** remaining and both **FUEL-LOW caution LIGHTS** flashing, we were **CLEARED for LANDING**.
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Safety is such a constant part of a Soldier's life they sometimes get complacent. After a while, one of two things usually happens: Soldiers forget about the measures that kept them safe because there have been no accidents, or they become focused on the outcome of a mission instead of their well-being. Often, the prime time for this to happen is when a unit is in the process of redeploying.

Based on my experience, I'm convinced the most dangerous time for a Soldier during deployment is near the end. Safety is normally the last thing on a Soldier's mind. During the relief-in-place or transfer-of-authority is when most accidents occur. Soldiers lose focus of the redeployment mission and start thinking about what they'll be doing when they get home. Risk management often becomes an afterthought.

During one of my deployments in support of Operation Iraqi Freedom, there was a notable period of increased accidents. Soldiers' frequent trips to the aid station coincided with our unit's RIP/TOA phase. Their injuries weren't mission related; the majority of Soldiers ending their tour were no longer being sent out. They were passing the time by playing football and basketball and, unfortunately, hurting themselves. There were so many Soldiers medically evacuated out of theater that the forward operating base commander put a restriction on all sports. That decision drastically reduced the
number of Soldiers reporting to the aid station for sports-related injuries.

In retrospect, if leaders would’ve conducted proper risk management throughout the deployment, many of these accidents might not have happened. Sports-related activities seem harmless enough, but if Soldiers don’t take proper precautions and protect themselves and their battle buddies, injuries are sure to occur.

Our Soldiers involved in moving equipment to the embarkation and departure points were especially susceptible to accidents. Before our equipment was loaded onto a ship, it needed to be meticulously washed, inspected and packed by these Soldiers. A wash rack can be considered a death trap if not used safely because at any given time, a number of vehicles are maneuvering in a very confined space. There’s a tendency for drivers to whip around the wash rack, trying to get their vehicles cleaned quickly and ready for transport. Other Soldiers in the area become vulnerable to impatient drivers and their vehicles.

Once the vehicles left the cleaning area, they had to be staged in the inspection area. After passing inspection, they were ready for shipment. Any movement of vehicles is dangerous, and when these Soldiers moved vehicles onto the ship, extra vigilance and attention to detail ensured none of our troops was hurt. We incorporated risk management during the military decision-making process for this operation and there were no personnel injuries.

Soldiers need to stay focused and not lose sight of the mission, even when they’re just a plane ride away from home. Incorporate risk management into all missions, not just during deployment/redeployment. Talk to your Soldiers about the decisions they make and why they make them. Soldiers always talk. It takes a good leader to listen.

Did You Know?

The USACR/Safety Center has a reference guide intended to assist safety professionals in advising their commands in preparing and maintaining accident prevention programs before, during and after deployment. The Deployment Guide for Brigade Combat Team Safety Professionals covers a myriad of common hazards, potential controls, TTPs and lessons learned for topics such as base operations, ammunition and explosives storage and handling, vehicle and convoy operations and weapons handling. The guide also offers links to briefings, checklists, sample standard operating procedures and risk management worksheets, relevant publications, posters, videos, websites and toolboxes. Much of the content comes from previously deployed safety professionals. Check it out today by visiting https://safety.army.mil/deploymentguide (AKO login required).
We've all heard the various causes of traffic accidents. These are just a few of the ones I was exposed to while traveling one holiday weekend.

After being on the road for a few hours, I came across an accident where a car hydroplaned off I-65, skidded across the road and struck a tree. The couple driving was two exits away from being home. A thunderstorm had just passed through the area, reducing visibility and soaking the highway and leaving puddles. This was a brief, intense storm that lasted less than 10 minutes.

I stopped to see if anyone required first aid. Several other people also stopped, among them a nurse. Since no ambulance was there, the only first aid would be rendered by private citizens. Fortunately, the occupants of the two vehicles traveling behind this car saw the accident, stopped to help and called the paramedics.

As a group, we decided to move the couple away from the car, which was leaking fuel. Since I have seen accidents where vehicles on the highway would hit cars stopped along the road, I suggested we move away from the interstate and keep any vehicle from parking where we were located. After about 18 minutes, the first police car arrived, followed by an ambulance.

As I was talking to the couple who crashed, I wanted to try to piece together the accident so I could share this experience with other people to help prevent similar incidents in the future. The woman driving the wrecked vehicle told me she was only a few minutes away from her destination and had no idea that it would be raining hard that day. Even though it was raining, she did not want to slow down. She’d heard of people hydroplaning on wet roads but figured it would never happen to her. Her husband told me it all happened so fast and before he knew what was going on, they were in the trees.

Fortunately, they were wearing their seat belts and received only minor injuries. However, the car was totaled. As the couple left for medical care at a nearby hospital, I drove away from the accident thinking how lucky they had been.

This accident involved many of the safety topics I hear in safety briefings almost every week.
Soldiers who have given many of these very same excuses. I had a mentor who told me that he always “plays the percentages.” I thought about that later as I continued down the highway. The Army does a great job identifying trends and hazards. We’re required to complete a Travel Risk Planning System assessment, which was developed to help commanders and leaders mitigate risk and reduce fatalities for personnel driving a privately owned vehicle or motorcycle outside their local area.

In all the paperwork I have seen, most of the common reasons for accidents are covered in one way or another. So the Army, as a whole, “plays the percentages.” These are the reasons we have safety briefings, POV inspections and the TRiPS assessment. Because of the statistics, all of these things were put in place to reduce accidents.

When you head out for a pass or leave, think about the statistics and how you can avoid becoming one. Remember, bad things can happen to you — even if you’re close to your destination — so wear your seat belt, reduce your speed in rainstorms and be aware of hazardous conditions.

It takes very little time to identify hazards and implement controls. However, it takes even less time to get into an accident and be stuck with lifelong consequences. Learn from others so that you do not become a statistic.
It was back in the summer of 2000 and I hadn’t yet gone to flight school. At the time, I was serving as a flight engineer on a CH-47D Chinook. Our mission was a simple, routine night vision goggle flight with a couple of very experienced pilots on the controls. During the brief, the pilot in command said he wanted to focus on slingload training and told me it was my night in the cargo hole.

During the startup, we confirmed all the hooks were operational and I prepared the cargo hole for slingload operations. As the flight progressed, everything seemed to be going smoothly and according to plan. Prior to beginning our slingload iterations, the PC landed next to the load and I readied myself in the cargo hole as the other flight engineer inspected the load. I reviewed my setup to ensure I wouldn’t have any issues during the hookup, and the PC briefed the crew on slingload operations.

As we began to hover, I took my position in the cargo hole and called the aircraft over the load. With two experienced pilots flying the aircraft, the hookup went well. Since we were doing multiple iterations, we typically hooked up a load, came to a hover, placed the load on the ground, repositioned and did it all over again (aka “elevators”). Everything was going as planned. What could go wrong with something that’s so simple and routine?

During the last iteration, the PC hovered over the load and, like each time before that evening, the hookup went smoothly. Then something different happened. As we were hovering with the load, the pilots began discussing techniques and failed to notice the aircraft had begun to settle and the load was back on the ground. I notified the pilot, but received no response. As the Chinook began to drift, I noticed we were dragging the load. This went on for a minute or so with the load bobbing up and down and, from time to time, dragging across the ground. Finally, I announced the load was still hooked up and we were dragging it. The PC immediately released the load while the slings were still tight. Before I knew what had happened, I heard a loud bang and saw the center cargo hook fly into the cabin, bounce off the floor and fly back out. Luckily, I did something right...
that night and was positioned clear of the hook, saving myself the pain of getting whacked in the face. During the debrief, we determined the PC thought he had released the load after setting it on the ground. For my part, I'd assumed he knew what was going on 30 feet behind him.

On this night, I let complacency and poor crew coordination win over my better judgment. I assumed because the PC was experienced that he knew what he was doing. Because of that, I let my complacency interfere with good crew coordination. I should have challenged the PC for a response as soon as I noticed the load was being dragged and not let it continue. Had I done that, I could have avoided the frightening end to that night's flight.
It was a gorgeous weekend in Atlanta with temperatures in the 80s and lots of sunshine. This was perfect weather for my older brother, Ralph, to move his family into their new home. He asked if I would mind lending a hand with the moving chores, and I gladly agreed. Once all the boxes were loaded, we made our way across town to their new home.

After bringing in the boxes, I helped Ralph with some minor cleaning. Like anyone moving into a new place in the Deep South, he was concerned about ants, spiders and other critters. To be safe, Ralph had set off five “bug bombs,” devices that exhaust insecticide into every nook and cranny of the house, the day before.

Moving is hard work, and by now I was tired and sweating. But along with the normal wear and tear that comes with the job, I noticed I was experiencing some unusual itching in my groin. I figured it was surely the result of overheating and would subside if I took a break. However, as the minutes passed, I realized the itching was far more intense than anything I’d ever experienced. Excusing myself to the restroom, I decided to take a look at the affected area. To my astonishment, the skin around my groin was a deep crimson color. Suddenly, I felt my palms...
also begin to itch uncontrollably and, as I looked at them, the same crimson pattern was taking shape.

I told my brother I thought he needed to take me to the hospital. As I explained what was happening to me, we both laughed. Surely I was overreacting to what was simply heat rash, right? Fortunately, I decided to trust my instincts and training and told Ralph to rush me to the nearest emergency room. As we drove, I realized the situation was becoming worse by the second. I could feel the rash spreading to other parts of my body. All of a sudden, as I looked out the window to my right, I realized I had lost my color vision. Everything was now black and white. Beginning to panic now, I told Ralph what was happening and urged him to start running lights and to get me to the ER as fast as he could.

His reply, which were the last words I would hear for awhile, was, “You’re the safety guy, and you want me to run lights?” At that point, I lost my vision completely. I slumped over in my seat and, succumbing to shock, lost consciousness. As my brother would later tell me, he realized at this point that I was actually serious. Now racing, he pulled up to the ER and ran inside to summon help. Emergency room personnel dragged me unconscious from the passenger seat and threw me onto a gurney. The impact with the waiting gurney woke me up. I was rushed into the emergency room, where I heard voices all around me and felt numerous sets of hands removing my clothes. I could also hear my brother trying to explain what I had been doing. I felt like everyone was overreacting, and even joked about being the only naked person in the room. But the joke was lost on the medical staff when, without warning, my upper body and my legs began to convulse. I felt my torso jumping as if shocked, and my legs were kicking into the air uncontrollably. I had no control over anything my body was doing and pleaded for answers.

“What’s going on? Why is this happening?” I asked. The doctor leaned down to my face and began explaining. I was suffering from acute anaphylactic shock, a full-blown allergic reaction to what, at that point, was an unknown substance. He explained that my airway was closing and they were going to intubate me to ensure I could keep breathing. As my body spasmed and lurched, I realized the situation was grim. The doctor looked over to someone in the room and instructed them to give me another dose of epinephrine, a drug used to stop allergic reactions. Another voice chimed in, “He’s already been given the max!” The doctor
replied, “We’ve got no choice.” Immediately after the final dose of epinephrine was administered to try and stop the runaway allergic reaction in my body, I went into cardiac arrest. Everything became crystal clear and I could make out each voice. The pressure in the middle of my chest was incredible and I was having difficulty breathing. I became extremely nauseated, as if I would throw up at any second.

The doctor screamed, “Get the crash cart over here now!” Seconds later, he was standing over me with the paddles in his hands. I told myself, “You have time for one final prayer.” I closed my eyes and recited the Lord’s Prayer in my head, which restored my peace of mind. Incredibly, my heart resumed its normal rhythm and the cardiac arrest ended. I was taken to the intensive care unit for observation because the danger was far from over. The doctors told me I could relapse into anaphylactic shock at any time.

That evening, with my wife by my side, the doctors came in to see me. Their explanation of the day’s events was an incredible tale of the dangers we face every day, the unnecessary risks we take and just how lucky some of us get. They told me I was within seconds of death in the emergency room and that they’d never seen a patient in such severe distress from anaphylactic shock survive. But what caused the anaphylactic shock? Why did it happen to me? Could it have been prevented? It wasn’t until later that I had my answers.

The bug bombs my brother had set off, technically referred to as total release foggers, contained a mixture of chemicals, including the poisons intended to kill insects and the agents used to disperse the insecticides. One key agent in the TRFs, pyrethrins, derived from chrysanthemums or their synthetic counterparts, have been identified as the culprit in a number of emergency room visits. Past incidents resulted in respiratory issues, rashes and anaphylactic responses such as mine. The severity of the response to these insecticides is directly related to the intensity of the exposure. Each of the TRFs used by my brother was designed to saturate a 700 square-foot space. My brother’s new home was 1,100 square feet. Believing that if one TRF was good then five would be better, he set off enough to saturate a 3,500 square-foot home. In other words, he used more than three times the insecticide needed. By ignoring the instructions for use clearly labeled on the bug bomb packaging, he unknowingly created a toxic environment in his new home.

This event almost ended in tragedy. No one should experience the terror of full-blown anaphylactic shock, the closing of your airways or the literally heart-stopping horror of a cardiac arrest. Household chemical agents carry strict instructions and limitations on their use for very good reasons. Every person who uses or is exposed to these common household agents must remember that there is no such thing as a harmless chemical. Read the instructions carefully and heed the warnings. You may not get a second chance.

FYI

Are you aware that the Hazardous Materials Information Resource System is the central repository for Material Safety Data Sheets for the U.S. Government military services and civil agencies? HMIRS is a Department of Defense automated system developed and maintained by the Defense Logistics Agency. It also contains value-added information input by the service/agency focal points. This value-added data includes HAZCOM warning labels and Department of Transportation information. HMIRS provides this data for hazardous materials purchased by the federal government through the DoD and civil agencies. The system assists federal government personnel who handle, store, transport, use or dispose of hazardous materials. To learn more, visit http://phc.amedd.army.mil/topics/workplacehealth/ih/Pages/usMaterialsInformationResourceSystem.aspx.
As of June 1, 2015, the Hazard Communication Standard (HCS) will require pictograms on labels to alert users of the chemical hazards to which they may be exposed. Each pictogram consists of a symbol on a white background framed within a red border and represents a distinct hazard(s). The pictogram on the label is determined by the chemical hazard classification.

**HCS Pictograms and Hazards**

**Health Hazard**
- Carcinogen
- Mutagenicity
- Reproductive Toxicity
- Respiratory Sensitizer
- Target Organ Toxicity
- Aspiration Toxicity

**Flame**
- Flammables
- Pyrophorics
- Self-Heating
- Emits Flammable Gas
- Self-Reactives
- Organic Peroxides

**Exclamation Mark**
- Irritant (skin and eye)
- Skin Sensitizer
- Acute Toxicity (haarmful)
- Narcotic Effects
- Respiratory Tract Irritant
- Hazardous to Ozone Layer (Non-Mandatory)

**Gas Cylinder**
- Gases Under Pressure

**Corrosion**
- Skin Corrosion/ Burns
- Eye Damage
- Corrosive to Metals

**Exploding Bomb**
- Explosives
- Self-Reactives
- Organic Peroxides

**Flame Over Circle**
- Oxidizers

**Environment** (Non-Mandatory)
- Aquatic Toxicity

**Skull and Crossbones**
- Acute Toxicity (fatal or toxic)

For more information: Occupational Safety and Health Administration
www.osha.gov (800) 311-OSHA (6780)
What’s Holding Up Your Car?

DURAND DURGA
U.S. Army Armament Research, Development and Engineering Center
Picatinny Arsenal, N.J.
Saturday was my day for making repairs on my car, and I’d been having problems with my old, rusty brake rotors. Every time I’d hit the brakes, the steering wheel would vibrate. I wanted to put an end to that, so I bought some good slotted and drilled replacement rotors. I gathered all the tools I needed — including a jack, wrenches, sockets and screwdrivers — and went to my garage to get started. I’d changed rotors on several cars in the past, so I basically knew how to do it.

The first thing I did was loosen the lug nuts on the wheel and raise the car with the new hydraulic jack I’d bought. Then, I took off the wheel and placed it beside the car so I could begin removing the brake caliper. After I got it off, the phone rang inside the house and I got up to answer it. After talking on the phone for about five minutes, I went back out to the garage and was surprised by what I saw. The jack had failed and one side of the car was sitting on the floor! I could see where hydraulic fluid had leaked out of the jack. Luckily, the car was resting on the jack’s body so nothing was damaged.

I was shocked. When I got over my surprise, I used a different jack to raise the car again and finished replacing the rotors. As soon as I finished, I bought a couple of jack stands and a new hydraulic jack.

I learned a valuable lesson that day. I’d realized that safety isn’t just for when you’re on the road; it also applies when you’re doing repairs. Since then, whenever I work on my car, I use the jack stands as fail-safes and, for extra measure, place a wheel beneath the car.

Thinking back on that day, I could only imagine what would’ve happened had I been under the car. Had the jack failed then, I would’ve been injured or possibly even killed. I’d always heard stories about how dangerous it could be to work on your vehicle, but I’d never thought something like this could happen to me. After all, my hydraulic jack was new. I’d trusted it — but it failed.

I now take all the proper safety precautions to protect myself and others when I work on my vehicles. I would encourage anyone else who does their own auto repairs to plan for safety in the process. After all, should your jack suddenly “get the drop on you,“ the last place you want to be is underneath 3,000 pounds of car.

**BY THE NUMBERS**

If you think what happened to the author is a rare event, you’re wrong. Since 2007, there have been several reported off-duty and on-duty accidents where jacks and jack stands were either used improperly or failed. The off-duty accidents injured four Soldiers and killed a fifth when his vehicle fell off a jack and landed on top of him. The on-duty accidents included a Soldier performing maintenance on the front brake caliper of an M1114. The Soldier, who was reportedly using “bottle jacks,” was pinned beneath the vehicle and killed when it fell on him.
How many times do our lessons learned come within moments of being written in flames?

It was a clear, sunny morning and I was the pilot in command of an OH-58C Kiowa. Our task was to follow and observe two AH-64D Apache helicopter crews during combat training. I was in the right seat; to my left was the instructor pilot — an experienced attack pilot who was evaluating the performance of the Apache air weapons team. The 64s flew in support of ground units as part of a large-scale scenario. Since it was already a warm day, we had removed both doors from our aircraft.

We had been following the Apaches for nearly three hours, ever since sunrise. They had been flying security for a convoy followed by providing air cover for Soldiers doing a cordon-and-search. When lead announced “bingo,” we headed to the forward arming and refueling point. Anticipating a routine quick turn with hot refuel, I thought we would be taking off again within 10 minutes. I had experienced countless hot refuels without incident in both the Kiowa and Apache, and this time seemed no different.

We landed on the far right at the number one point and had the Apaches to our left at points two and three. The refueling HEMTT was to their left off in the distance. Due to the position of the two Apaches, the personnel at the refuel truck could not see our helicopter.

This problem was normally dealt with by positioning a Soldier at the fire extinguisher to watch us and send hand signals to the refueling personnel at the truck. After landing, I brought the helicopter to flight idle as usual and casually reminded my PI of our emergency egress procedures, should the need arise. Perhaps 30 seconds later, I smelled an overwhelming odor of JP-8 fuel. I immediately yelled, “Get out! Get out!” and quickly moved through my emergency shutdown steps. Before I had completed those steps, I looked over my right shoulder through the aft Plexiglas window and was surprised to see fuel flowing down the entire window and door exterior. Without warning, the Soldier with the refueling hose had pulled the nozzle from the aircraft fuel port without shutting off the flow.

Quickly moving through my shutdown steps, I again looked to my right through my open doorway (remember, the doors were off). I saw the Soldier soaked in fuel from head to foot standing five feet away, pointing the spraying nozzle in my direction. I watched as a steady stream of jet fuel sprayed under my seat and onto the floor and chin-bubble beneath my legs and feet. I soon found out he had also sprayed fuel on the engine cowling and into the engine compartment.

Moving rapidly, I was able to shut down, unbuckle, disconnect and move out of the cockpit. Fortunately, my PI had followed my briefing instructions and was already well clear of the helicopter. As I ran to the 11 o’clock position under the still-spinning rotor blades, I saw the...
fuel-soaked refueler still dousing the right-side of my aircraft. I estimated that lasted about 20 seconds.

My PI and I spent several minutes regaining our composure and then called our boss and others who obviously needed to know what happened. Luckily, no one was injured. Not wanting to slow the ongoing training, we began making arrangements to continue the mission with a replacement aircraft. About 40 minutes after the incident, our replacement helicopter arrived and we were re-briefed and continued the mission. A senior NCO from the training team was aware of the situation and was steering a staff sergeant at the FARP to deal with what had transpired. Confident the problem would be resolved, we departed behind our two Apaches.

Another bag of fuel later, we found ourselves back at the same FARP at the same three refuel points as before. That is when details of the earlier event became even clearer. First, I realized no one had been manning the fire extinguisher at our one-o-clock position to send fuel cut-off signals to the personnel at the fuel truck. Second, I found out the fuel-soaked refueler simply walked off without getting help or informing anyone of what had happened.

However, what really got my attention was what was happening now during our second refueling. Despite the significant fuel spill that happened on our running helicopter only a couple of hours before, the three Soldiers now fueling my aircraft were a specialist (who was there during the spill) and two privates. Apparently, none of the officers or NCOs responsible for fueling operations had taken any interest in what had happened. During our second turn, our fuel cut-off signals were not readily understood and fueling continued for 15-20 seconds after we signaled to stop. I was stunned to see such a lack of leader interest after all that had transpired.

Fortunately, we all walked away from the incident without serious injury or loss of equipment. But I left having learned some important lessons.

- Leaders must be involved and aware of what their Soldiers do.
- A lack of training and supervision can quickly end in catastrophe.
- Complacency can lead to a routine situation becoming uncontrolled.
- Communication of hazards to leaders is essential if a fix is to occur.

I believe that a substantial part of that last bullet rested on me. Although I spoke with the training NCO shortly after the incident and eventually submitted an occupational hazard report, I still had not properly dealt with the immediate problem. I had assumed the FARP training NCO had handled the situation and drove on. What I should have done was immediately stop the training and let everyone know we had a problem that needed attention. I should have then followed up to ensure the correct people were informed, involved and taking appropriate action.

I’m grateful this story was written in ink and not in flames. But how close did we come? I don’t want to know."
There I was. Seriously, how many deployment stories do we have that start with those three words? I’m sure many of you reading this article have a few of your own. I’m a safety professional now, but when I reflect back on my time as a Fleet Marine Force corpsman (similar to an Army medic), I realize I have quite a few stories that start that way. This one is no different.

So there I was at Camp Samae San, Thailand, in Support of Operation Cobra Gold 2003. I pulled duty on a four-day rotation, and this evening was my night to stand watch at the field hospital. It was a “watch movies, play solitaire, take inventory and go to bed early” type of night since my fellow Marines were on liberty in Pattaya Beach.

I had just turned off the light and got into my sleeping system when someone started frantically pounding on the door. I got up, put on my shower shoes and stumbled around in the dark, trying to find the door. There I found a Marine
March 2013 KNOWLEDGE https://safety.army.mil

(Marine 1) holding up another Marine (Marine 2) with a blood-soaked towel on his head. I said, “What the heck happened?” Marine 1 replied, “My buddy got scalped!” You can imagine what my initial response might have been, but I got out, “Get him in here!” I then helped Marine 1 bring intoxicated, wounded Marine 2 into the exam hooch.

As I assessed the injury, Marine 1 shed a little light on what happened. Marine 2 was drinking heavily at a club and, when Marine 1 wasn’t looking, decided to climb onto the bar. Once up there, he stood up and was struck in the head by a ceiling fan. His scalp was peeled back and he was knocked down onto the bar. Bystanders immediately applied pressure to the wound with the towel and brought the injured Marine back to base for medical attention.

Usually in a field hospital, few circumstances call for waking-up the duty physician. This situation, however, merited a wake-up. I contacted the surgeon on call and proceeded to clean the wound as I awaited his arrival. The surgeon got there as I was laying out my closing tray and asked what type of situation I had. As I turned to tell the doctor the details, he was picking up the towel covering Marine 2’s head. Before I could say anything, he shouted, “Oh my God!”

I briefed the surgeon on what I had already completed and how I planned to close the wound. He agreed staples would be the best route and that anesthesia definitely wasn’t required since Marine 2 wasn’t feeling much anyway. Staples go in rather quickly, so by the time he would’ve dealt with the pain of anesthesia injections, the staples would be in place. So, Marine 2 received a lot of staples and now has a post-deployment scar showing how alcohol caused him a night in the field hospital.

I know this story may sound funny to some, but this Marine could’ve been more seriously injured. It may not sound like he was lucky, but considering the height of the bar, this Marine could’ve died if he’d fallen to the floor. Alcohol clouds our judgment, which sometimes leads us to do stupid things. We need to have situational awareness at all times and keep in mind the risks of not only our actions, but also of those around us. Fortunately for Marine 2, this incident wasn’t permanently disabling or fatal. Always remember safety first and safety always!
THE INSTRUCTOR PILOT WAS ON APPROACH TO A DIRT/GRAVEL ROAD ADJACENT TO A MANMADE Pinnacle in the training area when the main rotor blades contacted the pinnacle at 20 feet above ground level. The crew maneuvered the aircraft forward and set it down on the road for shutdown.

The instructor pilot was on approach to a dirt/gravel road adjacent to a manmade pinnacle in the training area when the main rotor blades contacted the pinnacle at 20 feet above ground level. The crew maneuvered the aircraft forward and set it down on the road for shutdown.

The system crashed after an engine failure and was recovered with damage.

The system crashed after an engine failure and was recovered with damage.

The system was recovered with damage.

The system was recovered with damage.

The system was recovered with damage.

The system crashed after the mobile training team trainer and crew lost link during flight.

The crew experienced an uncommanded flight input, after which the system entered a nose-low attitude and impacted the ground.

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The system crashed after an engine failure and was recovered with damage.

A Soldier died after collapsing during physical training.

A Soldier died while participating in Airborne operations training.

A Soldier died when the vehicle he was riding in struck a tree after the driver lost control, overcorrected and left the highway. Seat belt use was not reported.

A Soldier was killed when his vehicle left the roadway and struck a culvert. A Marine riding with the Soldier also died when he was ejected from the vehicle. Local authorities suspect alcohol and speed as contributing factors.

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A Soldier was riding in his vehicle, which was being driven by a friend, when they struck a stalled tractor-trailer that was partially on the road. The Soldier was not wearing his seat belt and pronounced dead at the scene.

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

A Soldier was ejected and killed when his car overturned after veering off a freeway.

A Soldier died when he lost control of his vehicle, which left the road and struck a tree. The Soldier was reportedly not wearing his seat belt and died on impact. His passenger was wearing her seat belt and was hospitalized for injuries.

A Soldier died after he was struck by a passing vehicle.

A Soldier was killed when his vehicle, reportedly traveling at a high rate of speed, left the road and struck a utility pole. Seat belt use was not reported.

A Soldier and his civilian passenger died when he lost control of his vehicle, entered the opposing lane of traffic and collided with an approaching vehicle. Seat belt use was not reported.

A Soldier died after he lost control of his vehicle in a curve and struck a tree.

A Soldier died after he was struck by a passing vehicle.

A Soldier died after he was struck by a vehicle while crossing a major roadway at an intersection.

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 usarmy.rucker.hqda-secarmy.list.safe-knowledge@mail.mil.

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*Includes vans, ATVs, snowmobiles and bicycles

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**If it happens ...**

- **REPORT IT** Army Accident Reporting System
  - [https://safety.army.mil](https://safety.army.mil)
The signs are all around. It’s up to YOU to recognize and act on them.

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.
WHAT MAKES SAFETY A SUCCESS?

By now, readers of this column should know I'm a big advocate of safety culture. The actual definitions of that term, however, can be as varied as the missions we perform every day. That's why it's important we have some measures in place as a litmus test for leaders looking to evaluate their culture and climate. The following six criteria can help you determine both your strongest and weakest areas regarding safety, and also give you ideas for enhancing your existing risk management programs.

First, senior leaders must be visibly committed to the safety program. That means, first and foremost, that you never tolerate injuries and losses as the price of doing business. The fact is - every Soldier and piece of equipment lost to a preventable incident increases our costs exponentially. Truly engaged leaders recognize this and do everything within their power to prevent accidents in the first place, not simply mitigate the effects of them after the fact. This requires a shift in focus from accidents, to near misses, close calls and deliberate targeting of risky behavior.

Junior leaders have to be even more engaged. With funding shortfalls and our operational drawdown nearing completion, the force is shrinking, leaving junior leaders with more day-to-day responsibility than they've perhaps ever faced. While their first instinct might be to let safety slide, they'll find they have much less work to do if their Soldiers conduct their missions safely and to standard. In addition to the human cost, a Class A or B accident consumes a lot of time on the administrative end with paperwork, investigations, and all that goes along with disability or loss of life. Safety is directly tied to efficiency, and it's incumbent on junior leaders to be active participants in the process and ensure their Soldiers understand the impact of risk management on all their activities.

Leaders should focus on safety as part of their performance. This should not be confused with making safety a punitive and linear process, however — we've spent too many years getting away from the “check the block” safety mentality to go back now. Instead, leaders should treat safety as an integrated part of the mission, with detailed steps to meet each milestone during execution. Having a plan is an integral part of establishing a functional safety culture, and while it should be focused on detail and accountability, those in charge must be careful not to micromanage. In the end, Soldiers doing the hard work every day are the owners of the unit safety program, and their leaders should respect them as such.

Soldiers have to be active participants in the process. Safety is one of those things they could easily shrug off as an unnecessary requirement designed by leadership to quash their fun. We know that's not the case, but we would do well to remember our feelings on authority at 18 or 20 years old. That's why Soldiers have to be continuously and actively involved in safety, so they learn early on the inherent value in it and have a voice in what works. When they see that risk management is essential to being a smart warrior, not a downer, we'll have won a small battle in the fight against accidental loss.

The safety program has to fit your unit culture. The Army is a regulatory organization by nature, but individual units have latitude to make the regulations work for them. The same is true of safety. It's not realistic to expect an approach that works for an aviation unit to be identical in an infantry battalion. Their distinct cultures are too far apart to force a template on one or the other, but the beauty of safety is its adaptability to the circumstances. All units share a common safety goal — elimination of preventable loss — but they don't have to take the same road there.

The final criterion is a culmination of the preceding five: The safety program must be positively perceived by all stakeholders: leader, Soldier and Civilian. Organizations need a feedback loop to stay on the edge of safety innovation, and your formation's attitude regarding the program is the most valuable feedback of all. When your Soldiers and Civilian employees are actively engaging in the process, you've closed the loop — for now. Sustaining that momentum requires you to start all over again, constantly evaluating successes (and sometimes failures) and making changes when needed.

Now that you have the criteria, how does your unit measure up? As I've said before, evaluating safety culture is much more involved than simply comparing today's accident figures versus last year's. It's not a straightforward process, and it requires some deep thought from leadership on what has and hasn't worked in the past. I can't tell you whether you're succeeding or not; only you have the answer to that. Seeking it, however, is well worth the effort, and I challenge you to take that effort on since the risks inherent to spring and summer are already here.
Thank you for what you do every day for our Army and our Soldiers, and please let me know how I can help you reach your safety goals. Working together, we will get there!

Army Safe is Army Strong!

TIMOTHY J. EDENS
Brigadier General, USA
Director of Army Safety
I looked outside the cockpit and thought, “This isn’t right!” The reflections from my red anti-collision beacons had the clouds spinning in opposite directions. But how could that be? Maybe it was my brain that was spinning.

I had loaded six Soldiers into my Pilatus Porter aircraft as we prepared to take off at night under instrument meteorological conditions. My mission was to transport the Soldiers from one airport to another. We received our instrument flight rules clearance, departed and, after our initial turn to our on-course heading, entered IMC. It became immediately obvious we needed to turn off the white strobe light that was flashing brightly against the clouds. That’s when the interesting part started.

Our aircraft was equipped with both strobe lights and rotating beacons for its anti-collision light system. The rotating beacons are single, red lens-covered assemblies with one being mounted on the top of the airplane and the other on the bottom of the fuselage. Being identical assemblies, both beacons rotate clockwise. However, when viewing the beacon lights, the one mounted on the bottom of the aircraft rotates in the opposite direction of the other.

So here I was, performing the normal instrument flight cross check in a dark cockpit, when, out of my peripheral vision, I saw one red light reflecting off the clouds traveling from right to left and the other red light traveling from left to right! Talk about having to fight the tumbling gyros in my head. My workload and concentration went up exponentially!

My co-pilot didn’t notice it and I was very reluctant to turn off our last anti-collision lights and proceed with just our position lights. We were under radar coverage and instrument flight rules, which meant there was very little danger of a collision with another aircraft. For the next 30 minutes, I fought the tumbling gyros until our vectored descent for the instrument approach. As soon as we broke out of the clouds into night visual meteorological conditions, my head instantly cleared up and all was well.

We landed, dropped off the Soldiers, taxied back to the runway, picked up our IFR clearance and departed for the return flight to the originating airfield. Upon completion of the mission, the co-pilot and I reviewed the light situation and how we could have better communicated during the flight. We discussed how turning the rotating beacon off was not a big deal in that situation. I also brought up the flight during our next pilot academics training day and, after telling my story, a few gray beards chimed in, “Heck yeah, turn off that light!” Our standardization pilot also reemphasized the safest course of action was to turn off the beacon to prevent vertigo and spatial disorientation. We had a good laugh at my expense.

When you read Army Regulation 95-1, paragraph 2-12b, it states, “Anti-collision lights will be on when aircraft engines are operating except when conditions may cause vertigo or other hazards to safety.” I’ve known that for years, studied it for my annual proficiency and readiness test and often discussed it during safety day and pilot training meetings. As I sat there, I thought, “So this is what that paragraph means!”

Until that night, I didn’t know how this looked in flight and it caught me off guard. Now that I have seen it, I understand why the warnings in the ARs aren’t just words to study. They’re words to live by!
CORNERING CONTROL: PART I
DAVID L. HOUGH
http://www.soundrider.com

Biker Bob just got back into motorcycling, and his new bike seems to have a mind of its own. His new heavyweight machine didn’t respond the same way his 250cc scrambler did 20 years ago. His scrambler would lean just by throwing his weight toward a turn. Today he’s on his way home from a ride, approaching the narrow side street where he’ll be turning off from the wide boulevard. Bob signals, rolls off the throttle and leans the bike into a right-angle turn. But the bike doesn’t seem to want to turn as tightly as Bob wants it to.

He tries leaning it a little farther by leaning his shoulders toward the right and nudging his left knee against the tank, but the front wheel continues to roll wide, across the centerline. Fortunately, the driver of a car coming up the street sees the bike and brakes to avoid a collision. It’s embarrassing not being able to control the bike as accurately as he’d like. Bob is not alone. Lots of motorcyclists haven’t figured out how to steer a bike accurately, especially a big bike at slower speeds.

The action is down at the front tire contact patch
It’s important to understand that accurate two-wheeler steering is a matter of pushing on the handlebar grips, not just leaning weight in the saddle. Obviously, a bike needs to lean toward the curve in order to turn. And you can make it lean just by shifting your weight in the saddle, or nudging the tank with your knees. But the easiest and most accurate way to control lean is by momentarily steering the front wheel opposite the way you want to go. The out-tracking of the front tire forces the bike to lean. To turn left, press on the left grip. To lean and turn right, momentarily press on the right grip. It’s called countersteering.

That momentary push on the grips is just the first part of a process of balancing and steering a motorcycle. That initial input is called countersteering because you momentarily steer the front wheel opposite, or counter to the direction you want to go. But as the bike leans over to the angle you need to make the corner, you allow the front wheel to re-center, and even steer slightly toward the curve. Leaned over, front tire traction forces the bike to turn. The bike is held at the same lean angle by gravity being balanced against centrifugal force.

This process repeats over and over again as a rider makes adjustments to balance and direction. Front-end geometry also contributes to balance — the front wheel keeps trying to re-center itself with the bike vertical. But even in a “straight” line, the front wheel weaves slightly from side to side as the bike’s geometry and the rider’s steering input work together to control balance and direction.

In a turn, you can control the direction of the bike by small adjustments to steering. To turn a little tighter, push the grips a little more toward the curve. That’s what Bob needed to do to avoid crossing the centerline and staying within his lane. Press right to lean right. And what Bob needed to avoid those parked cars on his right is to lean a little more left. Press left to lean left.

It might seem easy enough to countersteer, but sometimes a rider’s brain subconsciously confuses the issue, signaling the left and right hands to do different things. It’s not uncommon for a rider to be pushing on one grip to lean the bike and subconsciously resisting that push with the other hand. If it sometimes seems that your bike just doesn’t want to lean even when you are pressing hard toward the direction of turn, it’s a hint you need to get your hands coordinated.

Lee Parks, author of the book Total Control, suggests steering with one hand. That is, in a right turn, do the countersteering with your right hand. In a left turn, steer with your left hand. What’s important is to make a point of relaxing the other arm to ensure that you aren’t subconsciously strong-arming the opposite grip and resisting your “steering” hand. For instance, when turning left, steer with your left hand, and relax your right arm. In a right turn, relax your left arm. If you’re having trouble only with left-hand turns, it may be because you’re strong-arming the right grip as you manage the throttle. Try flapping your elbow a bit to help relax the “non-steering” arm.

Or, you might try concentrating on moving both grips toward the direction of turn. That is, leaning into a right turn, consciously press both grips toward the right. You might actually be pushing on the right grip and pulling on the left grip, but you can imagine
that it’s moving the grips toward the curve that pushes the bike over. Press both grips toward the right to lean right. Press both grips left to lean left. It’s OK to lean body weight toward the curve while holding onto both grips. Leaning pulls both grips toward the curve, which is actually countersteering, but focusing on leaning can smooth out the steering input.

**It’s not just countersteering**
While countersteering is the basic technique for accurate steering control, there are some other considerations when cornering, including your cornering line, where you’re placing your weight on the bike, and what you’re doing with the brakes and throttle.

*Editor’s note: See more of this topic in the May issue of Knowledge.*
The great outdoors is an ideal venue for extreme sports and activities. As a kid, I remember having fun just by going out and exploring. My friends and I would venture into the woods to climb trees or play tag or hide-and-seek.

As I got older, the exploring didn’t stop. In fact, it got hazardous. As a kid, I ran through the woods. Now, as an adult, I drive through them. What’s different is I’m cognizant of the hazards associated with extreme sports and always take precautions. These are simple precautions that can be applied to all outdoor activities. Simply having a friend come with you is the major one. Two people are always better than one, and three is optimal. Whenever I participate in outdoor activities, I always bring a friend.

Once, a friend and I were dirt biking through the woods. He took a turn too sharply and went down, sliding into a tree. His bike landed on top of him, pinning him to the ground. Fortunately, he was wearing all of his protective gear and was OK, but he landed in an awkward position and couldn’t get his bike off of him. Had I not been there, he would’ve been stuck there for who knows how long.

Something else that gets us into trouble — and I know this from first-hand experience — is testing our limits. An adrenaline rush makes us feel invincible when we’re riding through the woods. It’s that rush that makes us push the limits to see what we can or can’t do. It’s the “can’t do” that usually hurts. Always know your limits; but if you feel the need to test them, have a plan beforehand. What I mean is if there’s a steeper mountain to climb, a bigger creek to jump or a trail to finish in record time, do it with a plan. Don’t go out and attempt something on a dare or when someone calls you out. Assess the challenge, take it slow and do your homework before you try something new.

I watched another friend get hurt because someone dared him to free climb a waterfall. He had no safety gear and never attempted a climb like this before. All he had was a determined will to climb and prove the other guy wrong. About halfway up, he slipped and fell about 12 feet onto the rocks. The dare earned him a broken hip and foot. He didn’t have a plan or assess his challenge before attempting the climb. I failed my buddy and regret not stopping him from climbing that waterfall. Luckily, my failure only resulted in some broken bones. It could’ve been much worse, and we both learned a valuable lesson.

Most outdoor enthusiasts love the rush of extreme activities and sports. However, without a plan, fun excursions can end badly. No matter what outdoor activity you participate in, remember to be safe. Plan your challenges when testing your limits and always bring a friend to keep you in line.

FYI
Between fiscal 2007-11, 12 Soldiers lost their lives while participating in off-duty sports-related activities such as hiking, rock climbing, skateboarding, paragliding and parachuting. Sports and recreational activities commonly lead to injuries, but leaders and Soldiers can mitigate the risks if they become actively involved, on and off duty.

Regardless what sport you decide to participate in, make sure you are physically prepared; have the proper training, clothing and equipment to conduct the activity; and use the risk management process during planning and throughout. In addition, as always, take a battle buddy.

To learn more about off-duty safety, check out the U.S. Army Combat Readiness/Safety Center’s Off-Duty Safety Awareness Presentation. Visit https://safety.army.mil/ODSAP today.
In 2004, I was a sergeant in the 1st Squadron, 14th Cavalry Regiment at Fort Lewis, Wash. To prepare for our upcoming deployment to Iraq, our squadron commander thought it would be a good idea to conduct a border patrol mission. Our squadron was comprised of three cavalry scout troops and one military intelligence troop. The plan for the unmanned aircraft systems platoon was to conduct flight operations along the border between the United States and Mexico.

At the time, we did not have an approved airworthiness release for our Shadow UAS to fly in national airspace. The battalion submitted a request for a Certificate of Authorization six months prior, just as we’d been instructed to do. We railroaded all our equipment and transported it to a staging area at Fort Bliss, Texas. We went to the airfield to set up everything, only to find out our COA wasn’t approved. The rest of the squadron conducted their operations as scheduled. Although our Shadows represented a very valuable asset, we weren’t allowed to conduct missions.

Now we were at Fort Bliss unable to perform our operations. The platoon sergeant, platoon leader and I came up with a training plan for the following 30 days. We planned to go to White Sands Missile Range in New Mexico and conduct training flights to bring everyone up to readiness level one. In each training area, we had to set up radio frequencies and coordinate with the tower and range control on the procedures we would follow. Part of the coordination process involved reviewing the local notice to airmen (notices containing time-critical aviation information for the airspace being used) that could affect our UAS training. Using an FM radio, every morning we would call range control for any updates to the NOTAMs — but there never were any. We found that a bit odd but continued conducting our operations.

One afternoon, we experienced some problems with one of our Shadows. We hadn’t seen anything to be concerned about during the preflight checks, but as soon as it launched, it lost GPS. We had no idea where the Shadow was. Our only clue was to look at the feed from the camera and try to figure the Shadow’s location by observing the roads below. The coordinates the Shadow was sending were way off and the aircraft appeared to be bouncing all over the map and flying in circles.

I was the standardization operator for our platoon and had just finished instructing a Soldier on another aircraft. As soon as the GPS failure occurred, the other instructor operator called me over. There was an emergency procedure for this problem, but we’d never really practiced it. After all, we never thought we’d lose our GPS.

Getting the aircraft back on the ground safely was now a major challenge. The Shadow uses a tactical automated landing system, so you need to have a direct line of sight to the aircraft — something which is a bit hard when you don’t know where the aircraft is. During normal approaches, we acquire the aircraft at 1,000 feet, but we knew we weren’t going to be doing that on this landing. Fortunately, when the Shadow descended to 500 feet, it acquired the normal glide slope and we were able to land it safely and undamaged. Although we spent hours troubleshooting the aircraft, we could not reproduce the problem. We decided to just swap the GPS antenna and call it good to go.

The following day, we launched the same aircraft and, as you might guess, ran into the same problem with the GPS. We safely landed the Shadow and got the next aircraft ready to fly. We launched it and the same thing happened again. Once that occurred, we realized this issue was not isolated to a single aircraft. We were at White Sands Missile Range and, after all, who really knows what all is going on out there? We contacted range control again to report that our GPS systems kept going down. The woman at range control said, “Yeah, I see in the NOTAMs that they are jamming GPS all week from 1200 to 1600 hours.” After hearing that, the platoon sergeant and I went to range control to talk about this problem, explaining how we almost lost three aircraft. The woman said, “I had no idea that it would affect you. I didn’t know your aircraft had GPS.”

This experience taught us a lesson. It is vital that pilots and UAS operators personally review the NOTAMs daily. You can’t count on others to alert you to any dangers in the NOTAMs. As it turned out, we were the first Shadow platoon to fly from this location. The woman at range control thought the Shadow flew like a normal remote control plane with a flight control box. Her not understanding the Shadow’s requirement for GPS navigation and our failing to personally review the NOTAMs daily almost cost the Army millions of dollars.
The bottom line is that when it comes to aviation safety, the buck always stops with you. Trying to pass the buck by making assumptions or taking shortcuts is the quickest route I know to a smoking hole in the ground. And that is not where you want to be at the end of a mission.
WHY I WEAR MY SEAT BELT

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By the time you read this, I will have celebrated my 50th birthday. Hitting this milestone gave me a chance to reflect on events that changed my driving style. One hard-learned lesson taught me to ensure I and anyone else riding with me always wears a seat belt.

This isn't a story to tell you to wear your seat belts; it's about just a couple of real-life events from an old guy who has been lucky more than once. First, let me give you a little background. I was born and raised in rural Georgia and started driving in an era very different than today. The Dukes of Hazzard was on TV (I actually got to race the General Lee once while they were filming the show in town) and Smokey and the Bandit was on the big screen. Learning to drive by the seat of your pants in hot rods or jacked-up pickup trucks was the norm, and I was no different.

My first car was a 1974 Dodge Dart that I promptly wrecked. I then got lucky and found a 1955 Chevy with a 350 engine and four-on-the-floor shifter. I'm not sure if this car came with seat belts, but if it did, they were lap belts and never worn by me or any of my buddies who always seemed to find their way in it to cruise around.

If I had to put my finger on the one date that makes me wear my seat belt now, it would be April 3, 1984. I was a young paratrooper at Fort Bragg, N.C., and had recently returned from operations in Grenada. My buddies and I thought we were supermen.

One of the guys in the platoon learned that if you wanted to make a 90-degree turn in the M151A1 jeep, all you had to do was downshift the transmission, turn the wheel in the direction you wanted to go and pull up the emergency brake. And that's what we did. That day, we were going to the field to perform slingload training, and my jeep was loaded with four slings. I was the lead jeep and my platoon sergeant was riding with me. As usual, we were running behind schedule. Trying to make up time, I was going faster than I should have been and the platoon sergeant was not saying much to slow me down. To this day, I don't remember the accident. All I can recall is being about a mile away from the training site and hearing mission instructions. I learned the rest of the story from my platoon sergeant weeks later. He explained that as we neared a left-hand turn, I attempted to make it by using the emergency brake trick. What we didn't take into account was the extra weight in the jeep (slings), the deep sand on the dirt road and the jeep's brakes (Did I mention the brakes pulled to the left?). We attempted to make the turn and the jeep flipped. My platoon sergeant said he remembered the windshield crushing as we rolled. He was thrown from the vehicle and hit a pine tree. I wasn't as lucky. I ended up hung up in the jeep as it rolled, and the passenger side landed on top, pinning me. I was fortunate that the sand was deep so I was pressed down into it instead of being crushed.

The next thing I remember is waking up in hospital emergency room, not knowing how I got there. After being held overnight, I was released with some broken ribs and scrapes to my arms and face that paled in comparison to my bruised ego. When I returned to duty, I came to the realization that both my platoon sergeant and I were very lucky that day. The accident taught me a valuable lesson about speed and seat belt use, and I made the decision to slow down and buckle up whenever I get into a vehicle.
ARMED & HAMMERED
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In today’s society, we are bombarded with messages informing us we shouldn’t drink and drive because alcohol impairs judgment and slows reaction time, which can make our vehicles deadly weapons. So why do we continue to see Soldiers consuming alcohol and handling firearms, which are designed to be deadly weapons without the addition of alcohol?

Six Soldiers lost their lives in fiscal 2012 to off-duty negligent discharge accidents involving privately owned weapons. Alcohol was involved in at least four of the six accidents. In one case, a group of Soldiers consumed alcohol over an extended period one evening at several locations, taking care to use a designated driver or taxi. Then, upon returning to his residence, one of the Soldiers decided to handle his privately owned weapon. While doing so, he inadvertently disengaged the safety mechanism and discharged a bullet into his head.

In another case, a Soldier reportedly pointed a weapon at his friend, a fellow Soldier, to scare him to cure his hiccups. Sadly, his cure worked, and his friend will never have the hiccups again. The Soldier now faces manslaughter charges because he accidently discharged the weapon, killing his friend.

As a citizen of the United States, you have a constitutional right under the Second Amendment to keep and bear arms for lawful purposes. You also have a legal right to consume alcohol if you are 21 or older. However, conventional wisdom and Army statistics indicate that exercising both of these rights at the same time has the serious potential of resulting in a wrong that may be fatal. If you are handling a firearm, wait until you have safely stored your weapon before enjoying that “adult” beverage. If you are already enjoying that beverage, handle your weapons some other time.

Whether you use a weapon for hunting, target shooting or personal defense, your weapons-handling experiences will be far more enjoyable if you protect yourself, family members, friends and fellow Soldiers by handling your weapon in a responsible manner. Read the owner’s manual, sign up for a class, know appropriate laws and policies, always THINK weapons safety and make sure you and your weapon are never loaded at the same time. Don’t be armed and hammered!

FYI
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 U.S. Army Combat Readiness/Safety Center has a centralized collection of online resources for safe weapons handling. The Range & Weapons Safety 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.

Remember to always THINK weapons safety:
Treat every weapon as if it is loaded.
Handle every weapon with care.
Identify the target before you fire.
Never point the muzzle at anything you do not intend to shoot.
Keep the weapon on safe and your finger off the trigger until you intend to fire.
TANGLING WITH A TOMCAT
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Editor's note: The Virginia Army National Guard's Reconnaissance and Interdiction Detachment supports the Tidewater Drug Enforcement Agency's counterdrug missions. At the time of this incident, the author commanded the detachment. During a mission in the fall of 1996, a failure in air traffic control communication nearly led a Navy F-14 Tomcat to claw the author's OH-58 from the sky.

The mission called for one OH-58 with forward-looking infrared to be positioned at Norfolk (Va.) International Airport for an ongoing counterdrug surveillance operation. My instructor pilot and I departed Richmond early on a Monday morning for Norfolk IAP with our crew chief behind us driving a van containing supplies for the week.

Two days into our mission, my IP and I, along with a Drug Enforcement Agency agent in the back, departed Norfolk and starting tracking a suspect traveling by automobile in Portsmouth. When the suspect started traveling east toward Virginia Beach, we transitioned from Norfolk airspace to Naval Air Station Oceana for flight following. Oceana tower informed us to stay at 1,000 feet directly over the active runway since there were several F-14 Tomcat and F/A-18 jet fighters training at the airport. As instructed, we hovered at 1,000 feet and observed the suspect park his car at a local mall and go inside.

With the suspect now stationary, ground units moved in to continue surveillance while we broke contact to refuel at the airport. As the ground units were getting into position, a call came over the UHF radio clearing an F-14 Tomcat to Fentress Airfield. Fentress is a few miles south of Oceana and is used by Navy pilots to simulate carrier landings. I listened for Oceana tower to inform the F-14 pilot that we were operating at 1,000 feet and to stay clear, but Oceana never made the advisory. As a result, the F-14 came roaring off the runway and broke left, climbing directly at us. I quickly dropped the collective to lose altitude and was shocked to see the F-14 pass within 50 feet of us. I saw F-14 pilot's face clearly and noticed he was as surprised as I was.

As we descended, I was shaking with anger — not to mention fear. My first instinct was to land near the base of the tower to voice my dissatisfaction with the tower's flight-following procedures. However, my IP quickly calmed me down and reminded me that we needed to stay on task and mission.

This close-call reinforced the absolute necessity of maintaining situation awareness at all times. Even with flight following within controlled airspace, you cannot afford to lose SA by completely relying on the air traffic controllers. Had I not been monitoring the radios and caught Oceana's failure to warn the Tomcat of our position, I might not be here today. I never want to see an F-14 or any other aircraft that close to me in flight again.

There is an old saying among pilots that it's important to make sure your number of landings matches your number of takeoffs. If you want to do that, SA had better be one of the tools you always have in your toolbox.
UNSAFE AT ANY SPEED
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Is multitasking dangerous? It is if you are driving a motor vehicle. See if you recognize anyone described in this article.

Perhaps you know the type of overachiever who claims he can effectively carry out many tasks all at the same time. I'm one of those people. I can't help it. Still, I know deep down I am more effective when I focus on one activity at a time.

During this modern electronic era, information moves faster and people expect responses no matter where you are or what you're doing. Additionally, we live in a chaotic world, and staying focused has become more difficult than ever. The battle for our attention is a zero-sum game, meaning there is only so much of it to go around. Every time we attempt to perform one more additional task at the same time, less attention goes to everything else.

In truth, our attention goes back and forth between the tasks. In an office setting, multitasking is not necessarily very dangerous to yourself or others. On the road, however, losing focus can be deadly. Driving by itself involves keeping track of many details, all while maneuvering a heavy hunk of metal and rubber down a road, side by side with other drivers.

Some distractions are outside the vehicle, such as other cars, pedestrians and cyclists. Signs and billboards can also be distracting. Let's add to this some distractions inside the vehicle. Having a radio on seems pretty passive and not much of a distraction, unless what the person is talking about is interesting and draws some of your attention, as in a talk show or news program. What if you have one or more passengers riding along, involving you in a discussion? These are other forms of distraction.

According to www.distraction.gov, the official U.S. government website for distracted driving, “In 2010 alone, over 3,000 people were killed in distracted driving crashes.” The site also reports, “Distracted driving is any activity that could divert a person's attention away from the primary task of driving.”

All distractions endanger driver, passenger and bystander safety. Because text messaging requires visual, manual and cognitive attention from the driver, it is by far the most alarming distraction, according to the National Highway Safety Traffic Administration. Other examples of distractions include:

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

I cannot tell you how many times I have seen a car swerve out of its lane, only to notice that the driver has a cellphone pressed hard against his ear. The driver may have been seeing the road with their eyes, but only a percentage of their attention was actually going to their driving. Do yourself, your passengers and your fellow drivers on the road a favor. Avoid distracting activities while driving. Put your full attention onto the task at hand and enjoy a safe ride.
FYI
According to the National Highway Traffic Safety Administration:
- Drivers who use handheld devices are four times more likely to get into crashes serious enough to injure themselves.
- Text messaging creates a crash risk which is 23 times worse than driving while not distracted.
- Sending or receiving a text takes a driver’s eyes from the road for an average of 4.6 seconds, the equivalent driving the length of an entire football field, blind, while traveling 55 mph.
- Headset cellphone use is not substantially safer than handheld use.
- Driving while using a cellphone reduces the amount of brain activity associated with driving by 37 percent.

For additional information on distracted driving, visit http://www.distraction.gov/content/get-the-facts/facts-and-statistics.html
FOD FLOP
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Back when I was a young buck sergeant, I got my teeth “kicked in” due to improper tool accountability. Getting one’s teeth kicked in isn’t as bad as it sounds; a little corrective training never hurt anyone. But this particular event inspired me to reach what I thought was an unreachable Soldier.

I was a maintenance sergeant for a Chinook company. My guys had just completed aircraft maintenance on the flightline and I inspected all of their work. As I was on my way to pull a technical inspector away from his air-conditioned office, I realized a small task remained. I instructed one of my junior privates — whose heart was always in the right place — to replace an improper safety wire while I went to get the TI. I reminded him to do a foreign object damage check after he was done, and reinforced my guidance a stern eye and nothing more. The Soldier completed the task and went back to the office. I returned with the TI, who asked if I had looked over everything. As a new, hard-charging noncommissioned officer, I replied, “Absolutely,” forgetting I hadn’t checked my Soldier’s safety wire work.

The TI found a set of wire cutters and some extra wire on the rotating swashplate assembly. He not so calmly explained that if that assembly failed, there is no backup system and pilots can’t park on a cloud to wait for help. My platoon leader just happened to be in the area and decided to jump in and assist with my “lesson.” The undeniable lesson I learned that day was no matter what happens, I am responsible for the actions of my Soldiers.

After the smoke cleared (and I collected what pieces of my hindquarters were left), I went back to the office. My guys were patiently waiting for me to release them. I asked if they had everything and, of course, they all said yes. I then pulled out the wire cutter, and one head dropped. I didn’t go on the tangent I had rehearsed in my head on my way back from the flightline. Instead, I released everyone.

The FOD culprit stayed back and apologized. Apparently, he’d heard about the one-way conversation I received. I asked if he knew any of the people who were going to fly that aircraft later that evening, and he said he didn’t. I then took him back out to the helo and had him do another FOD check. Meanwhile, I spoke with the pilot, who I respected greatly, and asked if I could try something. He agreed. I told my private to look at the pilot and tell me about him. He didn’t say anything because he didn’t know the pilot. I proceeded to tell him about the pilot as well as his wife and sons. The private’s eyes started to water. I asked him, “What if your tool resulted in this man’s death? What would you say to his family? How many eulogies will it take to get you to do your job right?” He was silent.

That’s the business maintainers are in. It’s not just about taking the fight to the enemy; it’s about making sure our warfighters have fully functioning equipment to make it home every time. A FOD check should be conducted frequently and consistently around work areas, especially motor pools, flightlines or any maintenance facilities. We give them the best product available, regardless how terrible the weather is or how tired we are. In our world, just like in yours, there is no room for complacency. One eulogy is a price we should never be willing to pay.
KNOW IT OR BLOW IT
CHIEF WARRANT OFFICER 2 GLENN STEWART
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Going through flight school, we all hated Chapters 5 and 9 of the – 10. We asked ourselves, "Why do we have to know all this crap? What does it matter if I know all these steps verbatim, with every underlined sentence memorized and every airspeed on the tip of my tongue?" Well, about a year and a half ago, I learned why this is.

In October 2011, I was on a training mission to Ramstein, Germany, flying 750 feet above ground level at 100 knots indicated airspeed. At the time, I only had 70 hours of pilot in command time in the Apache and I had yet to have my first real emergency. My co-pilot gunner was flying and we were about five minutes from entering Ramstein’s airspace from the east. I looked inside to check the visual flight rules arrival/departure charts one last time when my CPG asked if I smelled something. I did and, noticing we were near an industrial area, told him it was coming from the smoke stacks. I made contact with tower and let them know I was three miles from the first reporting point.

As I focused my attention back at the arrival charts, something caught my eye. I thought I saw a small bit of smoke. As I lowered the chart, a steady stream of smoke started ascending from the console where the windshield wiper knob was located between my legs. I quickly threw the chart out of the way. All I could think of was, “I’ve got an electrical fire!”

I immediately let my front-seater know I had smoke coming into my crew station. He started an emergency descent, and I started making mayday calls. After I made contact with tower, the radios went eerily quiet. I then started to initiate the emergency procedure — but couldn’t remember it. After two or three seconds went by (which seemed like two or three minutes), I assumed the controls and instructed my CPG to turn off both generators. At the same time, I identified a “Y” in a farm road about 200 meters south of a small town at our 3 o’clock and told him we needed to land there. As we approached on final, my CPG backed me up with obstacles and apparent AGL altitude. On short final, we discussed actions upon landing. He would get out as I was shutting down the engines and guarding the controls. As he was exiting the aircraft, I turned to my checklist to read the EPs aloud. It read, “Gen 1 and Gen 2 – Off” and “Land as soon as possible.”

Hindsight being 20/20, I remember the smoke stopped as soon as we turned off both generators. In fact, there was no real threat once the first step of the EP had been completed. We made a safe landing. After the downed aircraft recovery team arrived, we found out the windshield wiper motor had arched. From the time I actually saw smoke to the time we were on the ground shutting off engines was less than 45 seconds.

I now understand why it is so important for us PCs to not just know Chapters 5 and 9, but to have them ingrained into our souls. And not only should we have these procedures burned into our consciousness, we need to stress the importance of them to those who will follow in our path. In most cases, these procedures were written in blood. That’s a price we don’t need to pay twice.
WHAT WOULD YOU DO TO SAVE A LIFE?

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Knowing your father caused a serious auto accident while driving under the influence is something you never forget.

As children, we’re taught right from wrong by our parents or a responsible adult in our lives. Then, as teenagers and into adulthood, it’s up to us to remember what we learned about things such as drinking and driving. We understand it has severe consequences for the person behind the wheel and others. We know we should drive safely to protect ourselves, our passengers and other motorists. Our parents, driver’s education instructors and others stress safety on the road and the dangers of drinking and driving.

However, some people believe they are above the law or think, “I can handle my liquor, no problem. I can make the ride home since I live nearby.” Some may escape the consequences, while others die or go to jail for that attitude. You may feel like, “We hear this all the time.” I felt the same way as you did until drinking and driving hit close to my heart and family. Let me tell you the story of the night my sister and I could have been victims of drinking and driving.

One Halloween, while my father was stationed in Bitburg, Germany, my sister and I wanted to ride with him to his buddy’s house so we could play with our friends. My father said we couldn’t go with him because we needed to go to a church function with our mother. But he changed his mind and said we could ride with him after all. Then, our mother said we did have to go to church with her. That was the end of it, so off we went to the church function. Little did we know how important that decision would prove to be.

On our way home from the function, we passed the scene of an auto accident that had just occurred. All of us hoped the occupants were not seriously injured as we continued to our home. After going to bed, we were awakened by a family friend who told us to get up and get dressed because we were going to their house. We asked where our parents were and what was going on.

The family friend just told us, “Just get your things. I will explain everything later.”

When we saw our mother the following morning, we asked what was going on. She told us to sit down and then explained the person involved in the horrible accident we saw the previous night was our father, and he was the cause. I remembered the accident scene and how the front of the car was in the median while rest of it was on the other side of the road. That’s where my sister and I would have been riding had we been in the vehicle. The vehicle had split in half from the force of the accident. My father was badly hurt and others were injured. It all happened five minutes from our home.

To this day, I wonder why my father didn’t just stay the night at his friend’s house or call for a ride. And why wasn’t he or his friend aware that he was impaired? If my sister and I were with him, would he have gotten drunk? We learned a hard lesson from the accident. Simply put: If you see a friend, family member or even a stranger who is in no condition to be behind wheel, speak up and take action. You might save a life.
Here’s a pop quiz: What sport leads all others in injuries for troops in combat theaters? The answer may surprise you — it’s basketball. Nearly 300 basketball-related accidents were reported to the U.S. Army Combat Readiness/Safety Center between fiscal 2008 and 2012, and the cost associated with those accidents was more than $1.5 million! And it’s no secret that many more basketball injuries go unreported. I realized anyone is susceptible to these injuries when I became a victim of the hoop demon during my second tour in Iraq.

We’d just returned from a patrol when some of the guys started a game. I changed into my physical fitness uniform, walked back to the court and sat with the others, waiting for my turn to play. Once I got into the game, it was a nice change of pace from being on patrol. When one of my teammates knocked away the ball, I chased after it to keep it from going out of bounds. Little did I know that another player had the same idea. As we both reached for the ball, we bumped heads.

He was OK, but I got the worst of it. Above my right eye, blood started trickling down onto my face. One of the medics came over and looked at the cut and told me to head to the aid station. At first, I objected but eventually relented. I figured, “Who am I to argue with the guy who took care of us?”

We got to the aid station and talked to the surgeon, who turned out to be a fellow Kentuckian. He gave me an ice-cold Ale-8 (a Kentucky soft drink) and told me he’d need to sew up my injury. Five stitches and a bandage later, the medic and I walked back to our rooms. Luckily, stitches were the extent of my injury treatment and I got to stay in the fight. However, sometimes a “harmless” basketball game leads to more serious injuries, including broken bones and pulled muscles.

Many times, a game of basketball turns into battle ball. Some folks think they can take out their anger on a supervisor or co-worker, and Soldiers and games get pretty heated. That shouldn’t be the case. Extracurricular sports should be for relaxation — to take one’s mind off the things outside the wire.

Supervisors need to keep an eye on troops or workers playing sports, maintaining order and intervening when an activity gets heated. However, never get involved in an altercation. Even as a Soldier or worker, you should not be hostile toward co-workers. You have enough to worry about while deployed.

Finally, always warm up properly. Many people think they can jump right into a game and end up getting injured. Stretch your legs and arms and warm up your ankles with some moves similar to those you’ll be doing in the game. Taking a few minutes to get your body prepared for physical activity can help you avoid the hoop demon.

FYI
In 2010, sports and exercise were the third leading cause of unintentional injury hospitalizations for the active non-deployed Army. Data from a survey of active-duty Soldiers showed that more than half (59 percent) are injured each year (Status of Forces Survey, 2008). Almost 30 percent of Soldiers have an injury from sports, exercise and recreational activity. Sports and exercise are the leading cause of non-battle injuries that were air evacuated from Iraq and Afghanistan (2001-2010). Basketball, physical training, football and weightlifting are the four leading sports/exercise activities that resulted in injuries that were air evacuated. In numerous field investigations conducted by the U.S. Army Public Health Command, physical training and sports were the most frequent cause of injury that resulted in sick-call visits and limited duty days.

Editor’s note: Information provided by Keith Hauret, Epidemiologist in the USAPHC Injury Prevention Program.
ACCIDENT BRIEFS

ROTARY-WING

CH-47F
Class C
• The aircraft was transporting a disabled OH-58D(R) when the load became unstable. The crew put the disabled aircraft back on the ground to reconfigure the load. Upon recovery completion, it was discovered the wire strike protection system on the OH-58D(R) had been damaged.

UH-60A
Class C
• The main rotor blade was damaged by a C17 panel that became airborne in the rotor wash during takeoff.

• The aircraft contacted the ground during an APART autorotation and sustained damage to the tail wheel and leading edge of the stabilator.

UAS

RQ20A
Class C
• The crew experienced an uncommanded flight input, after which the system entered a nose-low attitude and impacted the ground.

PERSONNEL INJURY

Class A
• A Soldier died after collapsing during physical training.

• A Soldier died while participating in Airborne operations training.

PMV-4
Class A
• A Soldier died when the vehicle he was riding in struck a tree after the driver lost control, overcorrected and left the highway. Seat belt use was not reported.

• A Soldier was killed when his vehicle left the roadway and struck a culvert. A Marine riding with the Soldier also died when he was ejected from the vehicle. Local authorities suspect alcohol and speed as contributing factors.

• A Soldier was riding in his vehicle, which was being driven by a friend, when they struck a stalled tractor-trailer that was partially on the road. The Soldier was not wearing his seat belt and pronounced dead at the scene.

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

• A Soldier was ejected and killed when his car overturned after veering off a freeway.

• A Soldier died when he lost control of his vehicle, which left the road and struck a tree. The Soldier was reportedly not wearing his seat belt and died on impact. His passenger was wearing her seat belt and was hospitalized for injuries.

• A Soldier died after he was stuck by a passing vehicle.
• A Soldier was killed when his vehicle, reportedly traveling at a high rate of speed, left the road and struck a utility pole. Seat belt use was not reported.

• A Soldier and his civilian passenger died when he lost control of his vehicle, entered the opposing lane of traffic and collided with an approaching vehicle. Seat belt use was not reported.

• A Soldier died after he lost control of his vehicle in a curve and struck a tree.

*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 usarmy.rucker.hqda-secarylist.safe-knowledge@mail.mil.*
FROM THE DASAF
GETTING RIDING RIGHT

With snow and freezing temperatures persisting throughout much of the United States well into April, it’s safe to say this winter has been particularly long and hard. That’s why, when the weather finally warms, Soldiers across our Army will be more eager than ever to bring their motorcycles out of storage. Hopefully you’ve already been talking to your riders about motorcycle safety, but May — as Motorcycle Safety Awareness Month — presents a perfect opportunity for you to either catch up on or reinforce the conversation.

Motorcycle accidents have been a persistent problem within the Army for some time. From fiscal 2003 to fiscal 2012, nearly 400 Soldiers were killed while operating a motorcycle. During that same time frame, approximately 500 Soldiers died in sedan accidents. That’s a pretty slim margin when you consider the overwhelming number of sedan drivers versus motorcycle riders in the Army, and it highlights the fact that motorcycle fatalities have grown nearly every year as deaths in most other accident categories have fallen. We have to stop this now, for we can’t afford another deadly summer on America’s highways.

It’s not my intention to pick on a particular group of riders, but accident data support the argument we should be aggressively targeting sport bike owners in our motorcycle safety programs. Last fiscal year, 59 percent of fatalities involved a sport bike; that figure has climbed to 67 percent to date this fiscal year. Age and rank are also a critical part of the equation: Of the 49 fatal motorcycle accidents reported during fiscal 2012, well over half involved a leader, and all but two of the nine Soldiers killed on motorcycles so far this year were older than 25.

One common theme spans a majority of motorcycle accident reports, regardless of age or pay grade — indiscipline. Whether it’s speeding, riding without personal protective equipment or failing to complete required training, indiscipline is now a known entity we must confront. The fact we’re seeing it in leaders is perhaps the most troubling aspect of all, that some of the individuals we’ve entrusted to care for Soldiers are failing them on a very grand scale. The loss of a leader to a preventable accident that ultimately was his or her own fault has to be a devastating experience for young Soldiers still finding their way as adults.

These are the trends from the past several years, and it has caused us to take a hard look at the way we approach safety. Like many of you, I came up through the Army believing 18- to 25-year-olds were our problem demographic, and they still are in sedan accidents. But leader and older Soldier involvement in motorcycle mishaps is still relatively new territory, although one we learn from every day. That’s why May is such an opportune time to engage with not only your Soldiers, but also your leaders about motorcycle safety and indiscipline, to relay lessons learned early in the riding season with the goal of preventing future accidents.

Of course, the USACR/Safety Center is here to help with programs and tools. The Progressive Motorcycle Program, which promotes lifelong learning and was mandated by recent revision to Army Regulation 385-10, appears to be paying dividends in terms of fewer motorcycle fatalities thus far this year as compared to the same time frame in 2012. We’re currently conducting a beta test at one Army installation to take the training one step further and incorporate a behavioral component into the Basic RiderCourse, thereby teaching Soldiers to make smart decisions on the road before they develop bad habits. I’ll keep you informed of the progress on this initiative as it moves forward, but until then, ensure your Soldiers’ training is up to date and point them to the numerous rider resources available at https://safety.army.mil.

Finally, we have to remember the risks our Soldiers will be facing this summer reach far beyond motorcycles. Sedan and other PMV fatalities are almost guaranteed to rise between now and October, along with deaths related to drowning. We’ll need to be just as cognizant of these hazards and channel our efforts to mitigating them during these next few months.

Thank you all for the fantastic job you’re doing for safety — we’re here because of your hard work. I look forward to seeing even more improvements these last days of spring and throughout the summer. Use the tools we have, and please let me know how we can further help.

Army Safe is Army Strong!

TIMOTHY J. EDENS
Brigadier General, USA
Director of Army Safety
BACK ON TRACK
RETIRÉD SGT. 1ST CLASS WILLIE E. CARTER
Fort Hood, Texas

It was mid-afternoon on a Thursday when I received a phone call from my best friend asking if I could help him move some furniture. Although I was tired from staff duty the night before, I told him I would be right over. I figured if we could knock out the move quickly, I could get back home to rest. I decided to take my motorcycle, so I threw on an old flight suit and the required personal protective equipment to make the five-mile ride. Little did I know that this ride would change my life forever.

As I traveled along a two-lane road to my friend’s home, I approached a tractor-trailer with its turn signal on, indicating the driver intended to make a left-hand turn in front of me. I slowed to ensure the driver saw me approaching, but as I got about 20 feet away, the driver turned. After striking the truck, I was thrown between the cab and trailer and landed 30 feet on the other side. In shock, I jumped up but immediately collapsed back to the ground. I then realized I couldn’t feel my legs. I thought my life was over.

Fortunately, after two surgeries and 30 days in the intensive care unit, I managed to walk away from this incident with a minor back injury and a blown left knee that I had reconstructed a few months later. Once I fully healed, I returned to street riding, but I couldn’t get past my accident. Every car, truck or turn scared me to death. I didn’t know what to do. But I couldn’t stay away from my motorcycle — riding was my life!

My riding future was looking pretty bleak when a fellow street rider introduced me to track day riding. He told me I could go as fast as I wanted without the fear of cars, tractor-trailers or wildlife getting in my way because the riding takes place in a controlled environment. This sounded like the perfect solution to my problem.

After my first ride, I was hooked. In fact, it gave me a new appreciation for riding. There are some tradeoffs, though. Here are some measures you’ll have to take before participating in track day riding:

**Protective Gear**

Track day riding requires special PPE to keep riders safe, including:

- An undamaged, full-face Department of Transportation- or Snell-approved helmet
- Full-leather gloves that cover the wrist by two inches
- Leather boots that cover the ankle and protect the shins
- A one-piece, full-leather race suit
- For extra protection, riders can also add chest and back protectors, padded hip under-garment shorts and hearing protection

As you can see, track day riding can be expensive. However, the cost of the equipment is minimal when you compare it to the value of the lives of those participating. In my opinion, it’s money well spent. I purchased the best gear that I could afford because I wanted the best protection available. Cheap gear doesn’t offer the best protection. Remember, you get what you pay for.

**Bike Prep**

There are a few requirements your motorcycle must undergo before you can ride, including:

- Tires and brakes should be in new or nearly new condition
- Disconnect or remove the fuses for the lights (check to ensure the bike operates normally after this step)
- Tape over all lenses and mirrors. No lights should be visible or “bleed through.” Also tape over the speedometer. The reason for taping is to eliminate the distractions to you and fellow riders. By reducing distractions, we’re able to focus on what is important — rider safety!
• The bike does not need to be safety wired, but wiring the oil drain and fill caps is highly recommended and easy to do.

• Taping wheel weights is required. Duct tape works well.

• Draining the antifreeze and replacing it with pure water or water wetter additive is recommended but not required.

**Tech Inspection**

The final step before you can ride on the track is to have a technical inspection performed on the bike and your equipment. This will be performed at the track by certified personnel. Helmets and all riding gear must be presented at the tech inspection area. Precision staff will perform an overall visual and tactile assessment checking for issues such as leaks, loose fittings or other safety concerns. Your bike and gear must pass tech inspection each day before getting on the track. Other inspection items include:

• Crisp throttle return mechanism

• Hand controls are intact, with properly tightened levers and grips in good condition

• Foot controls properly attached and nothing loose or with excessive play and no missing bolts

• Chain properly adjusted — generally one inch of slack above the swing arm, but check your owner’s manual for manufacturer recommended tension and adjust prior to event

• Tires in new or nearly new condition

• Wheel weights securely taped (use duct tape or something similar)

Now that you know your bike is safe for the track, you must determine what ability group/level you need to ride. The groups are based on skill level and track experience. There are three levels — beginner, intermediate and advanced street rider/racer. The beginner and intermediate groups offer classroom instruction to teach you proper riding techniques and the proper race line around the track. This is the key to going around the track in a fast and safe manner.

For me, track day riding opened up a whole new world of motorcycle enjoyment. It’s also the perfect option for those who want to fulfill their need for speed. If you’re looking for a new challenge, take that sport bike to the track and stop racing down public streets. You’re only putting your life and the lives of others in danger.
SHOCKING HAZARDS
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Each year, electricity injures or kills more than a dozen Soldiers and civilians. That might not sound like a lot, but what's frustrating is most electrical-related accidents are the result of human error. Soldiers and civilians often don't use proper protective equipment or correctly follow the procedures to ensure an electrical source is not energized before servicing it. In addition to these injuries and deaths, the Army loses an average of five vehicles and two buildings to electrical fires annually.

These incidents aren't specific to the Army. Nationwide, home electrical failures or malfunctions cause more than 50,000 fires each year, resulting in 450 deaths, nearly 1,500 injuries and about $1.5 billion in property damage, according to the National Fire Protection Association. To help prevent these incidents, it's vital folks know the ins and outs of their electrical systems and the safety concerns associated with the latest residential technologies before bringing them into their homes.

There are simple improvements that can be made to any home or office to increase electrical safety without undertaking a major renovation. This includes installing arc fault circuit interrupters that prevent fires by detecting hazardous arcing conditions, ground fault circuit interrupters that thwart shocks and tamper-resistant receptacles that replace standard wall outlets to protect children from shocks and burns.

We hear a lot about the electric vehicles, smart meters and renewable energy sources. Yet, there's not a lot of information readily available to educate consumers about the potential electrical safety hazards. Everyone in the Army family needs to be educated about these new technologies and have an electrical system evaluation performed before adding new components to their home.

At work, the newly released Department of the Army Pamphlet 385-26, The Army Electrical Safety Program, dated Feb. 1, 2013, provides electrical safety guidance to protect Army personnel, facilities and equipment against electrical hazards. The publication covers a myriad of topics, including electrical safety requirements, tactical electrical safety and electrical safety for all Army activities.

Safety awareness and education are key in preventing electrical fires, injuries and fatalities. Get the facts and don’t get zapped!

FYI
May is National Electrical Safety Month, and safety professionals here at the U.S. Army Combat Readiness/Safety Center are happy to provide material to raise awareness about potential home hazards and the importance of electrical safety. The Electrical Safety Foundation International sponsors National Electrical Safety Month to increase public awareness of the electrical hazards around us at home, work, school and play.

This year's awareness program educates the public about emerging technologies and the electrical hazards associated with them. These technologies include electric vehicles, solar power, wind power and smart meters.

For more information about ESFI and electrical safety, visit www.electrical-safety.org. The USACR/Safety Center's electrical safety awareness program provides information and tools in an effort to help organizations plan and execute National Electrical Safety Month activities. To learn more, visit https://safety.army.mil/soh/INDUSTRIALSAFETY/Electrical/tabid/547/Default.aspx.
A DEADLY COMBINATION
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Growing up in the early 1980s in Mississippi, I performed a number of unsafe activities on a daily basis — whether just for fun or because nobody knew any better. We flew through the woods on dirt bikes, jumped off bridges into the creeks below and operated large farm equipment at way too early an age, just to name a few. I remember being 5 years old and riding on the fender of my grandfather's tractor while he ran the disc over his field before planting crops, usually at a pretty good rate of speed. Looking back, one slip is all it would have taken for me to have been chopped to pieces!

As I got older and wiser, I saw the risks in these activities and, for the most part, avoided them altogether. Nowadays, the only real inherently unsafe activity I perform on a routine basis is riding an all-terrain vehicle — or as we call it in the South, four-wheeler riding.

Throughout my 25 years of riding, I've seen many injuries that could've been avoided had it not been for one thing — alcohol. Of course, when we were younger, my friends and I were not riding around drinking beer. As I got older, though, I saw it happening more and more. It seemed like every time we got together to ride on the weekends, everyone brought their own cooler packed with beer.

My regular riding group was comprised of folks of all ages and experience levels, including a local law enforcement detective. The one thing we had in common was the enjoyment of regular beer breaks. It was as much a social experience as riding experience. Nobody was ever concerned or took into account the fact that this was not only illegal, but also completely unsafe.

It wasn't until about five years ago that I realized how alcohol affected me as a rider. A friend and I were riding in a spot we had been to dozens of times, and nothing was out of the ordinary except for the fact that I'd had a few beers over the course of the last couple of hours. We came to a ravine about 20 feet deep that I had passed many times before. What was different today, though, is that all of a sudden it looked like a very good challenge to test my skills as a rider.

After stepping off my ATV to get a better look at the ravine, I decided I should have no problem negotiating to the other side. Upon the initial descent, however, my front left tire went into a hole covered with brush, and the four-wheeler began to roll forward and to the left. I immediately bailed off the side, rolled down the ravine and landed at the bottom in some thick mud and water. The four-wheeler tumbled behind me and landed on my arm, pinning it. My buddy jumped down to help free me, and we eventually recovered my four-wheeler from the ravine.

When I got home, I realized how lucky I'd been. The whole reason I'd tried to negotiate the ravine in the first place was because my judgment was clouded by alcohol. To this day, I don't have even a sip of alcohol if I know I'm going to be riding my four-wheeler. And during our breaks, I make sure and have a fresh pouch of Levi Garrett instead of a cooler full of Bud Light.

We, as leaders, must understand the activities our younger troops are participating in during their down time. Many of you may not know that alcohol is so prevalent in recreational four-wheeling, especially if you've never been a rider. If you have a young Soldier heading out for a weekend of ATV riding, make sure he or she understands the importance or abstaining from alcohol. You might just save a life.
THAT NEVER-AGAIN MOMENT
CHIEF WARRANT OFFICER 2 STATON WEST
B Company, 1st Military Intelligence Battalion (Aerial Exploitation)
Wiesbaden Army Airfield, Germany

Have you ever made a mistake? Of course not, but I have — many of them. I’ve made mistakes while flying helicopters and airplanes in the Army and even while piloting my own personal aircraft. I’ve made mistakes as a 250-hour pilot and a 2,500-hour pilot. Fortunately, my errors amounted to nothing more than a bruised ego and a subsequent barrage of thankful prayers. I am more adept at forgiving myself for errors due to ignorance than the ones due to stupidity — the “never-again” moments from which I miraculously walked away seemingly unscathed. The good news is I learned my lesson on many accounts and pledge to never again have a never-again moment.

Early in my military career, I led a forward support medevac team during an operation in Saudi Arabia. It was an exciting time for me as a junior Army leader and as a newly designated UH-60 Black Hawk pilot-in-command. The three-month deployment was less than challenging. Although we were poised to respond around the clock to medical emergencies on and near the airbase, the call never came. This is a good thing, obviously, for our military beneficiaries, but not so much for a group of bored aviators. This boredom manifested itself during our training and the incentive flights we conducted for our Air Force counterparts at Prince Sultan Air Base.

I could easily blame the group of hoopin’ and hollerin’ jet jocks strapped in the back of my Black Hawk for spurring me down to 15 feet (yes, 15 feet!) above ground level at 135 knots indicated airspeed, but I won’t. It was all me and a desire to appear as equally skilled and cool as my passengers. The never-again moment — the one that truly changed my life — happened on a subsequent flight.

Apparently, 135 knots while only 15 feet off the deck wasn’t cool enough. I just had to push it further to make sure my passengers got the ride of their lives. A moment of both ignorance and stupidity, I had no business doing the maneuver that led to loss of tail rotor effectiveness — a condition almost unheard of in the Black Hawk. In about 0.72 seconds, an eternity, the tail of the helicopter spun out of control by about 270 degrees. The F-16 pilots strapped in the back cheered, Igor Sikorsky shrugged, I prayed and cursed at the same time, while God smiled upon us all that day and sent the ship home at a nice and easy 100 knots 500 feet AGL. Never again.

Other mistakes have been less deliberate but equally stupid (read: human) like the time I attempted to depart in my AA1 Yankee with the tow bar still attached to the nose wheel. Bless the nearby transient pilot who called my attention to it. Again, a bruised ego was the result, particularly since my not-so-much-into-flying-in-small-airplanes wife was with me. Glad it wasn’t our first date!

There are the honest mistakes that rest in what I like to call “experience.” These are the ones from which I have learned a lot about … well, almost everything, particularly about flying and aviation in general. None of us like to err, but the fact is we inevitably will, so it is incumbent upon us all as professionals to learn from our and others mistakes. This can only happen if we agree to openly air our errors with the hope that others can benefit from the lessons that come from making mistakes.

No matter the scope or scale of one’s participation in aviation, we, as participants, are all part of a system. And because we are human participants in this complex system, errors — even chains of errors — exist. Learning from the experiences of others, both good and not-so-good experiences, is a safe and efficient way to learn. Sitting around a group of pilots telling “so-there-I-was-inverted-pulling-so-many-Gs-I-was-in-the-Hs” stories is valuable time spent. No matter if the stories are true, half true or far from the truth, there is usually a lesson to be learned. This is why it is so important to have a mentor or network of individuals with whom we can share our stories and experiences.

That never-again moment you share with others will most likely be met with a “been there, done that” response or two. Perhaps not, but know that you just imparted a bit knowledge based on experience that one day may enable others to break the error chain.
FYI

Author’s note: In my opinion, NASA’s Aviation Safety Reporting System is perhaps one of the most innovative and necessary aviation safety programs in history. This cooperative safety reporting program invites pilots, controllers, flight attendants, maintenance personnel, dispatchers and other users of the national airspace system or any other person to report to NASA actual or potential discrepancies and deficiencies involving the safety of aviation operations. The effectiveness of this program in improving safety depends on the free, unrestricted flow of information from the users of the NAS. Based on information obtained from this program, the Federal Aviation Administration will take corrective action as necessary to remedy defects or deficiencies in the NAS. ([http://asrs.arc.nasa.gov/overview](http://asrs.arc.nasa.gov/overview))

The key words in the preceding paragraph are “free, unrestricted flow of information.” This is possible due to the non-punitive nature of the program, thereby giving would-be respondents freedom to openly report errors or discrepancies without fear of reprisal – unless of course errors are the result of gross or criminal negligence or in blatant violation of Title 14 of the Code of Federal Regulations (14 CFR).

Certainly there are obvious circumstances when it is appropriate to assert blame due to willful misconduct; however, such instances are fortunately few and far between in aviation. Efforts to uncover the anatomy of human error in aviation benefit more from a systemic approach rather than a “name, blame and shame” approach. In other words, inevitably there exists a chain of events — latent conditions that enable these events to occur at precisely the right moments within a given system — that ultimately leads to an accident. Error reporting programs such as NASA’s ASRS are used to seek and correct system deficiencies in an effort to break error chains. The organization publishes a monthly newsletter entitled “CALLBACK” which highlights lessons learned from various incidents and a wide variety of topics. Download current and back issues at [http://asrs.arc.nasa.gov/publications/callback.html](http://asrs.arc.nasa.gov/publications/callback.html).
My brother and I grew up biking all over the mountains of Utah and considered ourselves fairly experienced riders. So when our town celebrated the grand opening of a state-of-the-art mountain bike park, we couldn’t wait to hit the trails.

After a few runs down the mountain, we decided to try the jump course. This portion of the course was a mixture of dirt and rocks and consisted of a series of four jumps that were about five feet tall. I hadn’t attempted a course like this before, but I was game.

During my first run, I negotiated the first three jumps easily. By the time I approached the final jump, however, I’d picked up a lot of speed. As I crested the top of the ramp, I took flight, but my bike stayed on the ground. I was able to come back down on the bike, but all control was lost and I crashed into the dirt, landing on my side.

Even though my day ended with a trip to the emergency room, I consider myself lucky. While I received seven stitches to my right elbow, my helmet protected me from being seriously injured. In retrospect, I could’ve prevented my accident had I not been overconfident in my abilities.

There are many different types of recreational bicycling, including downhill, cross-country and BMX. Mountain bikes are different from other varieties in that they are usually full-suspension, meaning the front and rear forks are suspended to provide comfort and stability. As the design has evolved, so has the use of the mountain bike. Today, a mountain bike is similar to a motocross motorcycle without the engine. These newer designs have proven safer; however, they also allow the rider to push the limits. Riders go faster through rougher terrain than ever before. Because of these situations, a crash can be devastating. Fortunately, personal protective equipment has also evolved, and riders are wearing full-face helmets and full-body padding to soften the impact of a potential crash.

No matter what type of riding you do, it is important to assess the situation and determine what type of equipment is appropriate. If this sounds familiar, it should be because it is part of the risk management process. In my case, I was attempting to soar through the air on a bike designed for cross-country-type terrain, not high-speed jumps. I was also wearing PPE that would be appropriate for cross-country trails instead of the full-face helmet and pads needed for those types of jumps.

I only have a small scar to remind me of my accident. It serves as a reminder that I should assess the situation and ride within my abilities. Thinking before we ride can ensure we ride another day.

Did You Know?
Over the last five fiscal years, we lost an average of 133 Soldiers to off-duty accidents each year. We, as an Army, can change this. To assist you, we have updated and improved the annual Off-Duty Safety Awareness Presentation. You can view or download the presentation and notes from https://safety.army.mil/ODSAP or the U.S. Army Combat Readiness/Safety Center’s home page. The materials and statistics contained in this year’s presentation, titled “What Have YOU Done to Save a Life Today?” enhance safety awareness for numerous off-duty activities, as well as home safety, and address risky behaviors and the impact of fatigue and alcohol.

Developed for use at battalion level and below, the presentation comes complete with embedded videos and speaker notes. The speaker notes can be used as is or modified to fit your presentation style or to reflect what’s happening in your unit. Please share it with your Soldiers. Our goal is to assist you in making every Soldier aware of the off-duty hazards they face in the upcoming months and to let them know that they can be part of the solution in preventing the next accident and needless loss of lives.
FYI
Here are some considerations you can use as part of your own risk management process when it comes to bike safety:

DON’T
• Ride beyond your ability. Overconfidence is a leading cause of injury in all accidents. Find out if there are any difficulty ratings for the trail before you go.

• Ride alone. Always ride with a buddy, especially if you are traversing remote trails that are not easily accessible to emergency services.

• Wear Earphones. Army Regulation 385-10 prohibits the wearing of audio devices with earphones on military installations. Why should we relax the standard off-post?

• Speed. Speeding can easily lead to loss of control and injury to yourself and other riders.

DO
• Wear the proper PPE. Determine the proper PPE needed for the type of riding you will be doing.

• Know your trail or course. Study the trail before you ride. This will help you know what to expect and prevent disorientation.

• Be prepared. Ensure you pack plenty of water and necessary food. Also, bring extra tubes and tools and a pump. A GPS is also a good idea.
CORNERING CONTROL PART II:
CORNERING LINES
DAVID L. HOUGH
http://www.soundrider.com

Editor's note: In the April issue of Knowledge, author David L. Hough provided Part I of his tips on how riders can safely maintain control of their motorcycles when riding in a curve. In this issue, Hough offers Part II of the installment, “Cornering Lines.”

One of the advantages of a narrow two-wheeler is that you can follow lines through corners that not only provide better traction, but also decrease the risk of a collision. Yes, you can just follow one of the car wheel tracks through a corner, but that doesn't necessarily decrease the risks. Riding a motorcycle, you can use the entire lane, straightening out curves. The straighter your line through a corner, the less the demand on tire traction, which helps avoid a slide-out.

It's also important to improve the view ahead because what you can see is a big factor in how fast you can corner. To avoid sticking out your neck too far, you always need to be able to bring the bike to a stop within the roadway you can see. You have to assume there will be hazards in the road halfway around, even if you can’t see them yet. And when you’re rounding a right-hand corner, your sight distance typically gets shortened by the shape of the landscape.

The best way to maximize the view is to enter corners from the outside of the turn. That is, approaching a right-hander, make your turn-in from a position closer to the centerline. For a left-hander, make your turn-in closer to the right edge of the pavement.

Sideswipe Zones
It's also a high priority to avoid getting sideswiped by oncoming vehicles. It might seem prudent to just stay away from the centerline all the time, but that's not necessary. Drivers tend to wander over the line in specific areas, and it's only necessary to avoid those areas. Consider how an oncoming driver sees the road. There is a tendency to enter curves too fast, cut toward the inside too early, then drift wider in the last half of the curve. So you don’t need to avoid the centerline all the time; you only need to avoid those sideswipe areas. As it happens, entering a curve from the outside allows you to cut toward the outside of your lane at the critical zones, increasing your distance from potentially wandering drivers.

Surface Camber
Those twisty secondary roads we enjoy typically have lots of crown in the center, with the pavement on either side slanting off (cambered) toward the edges of the road. A steep camber in a right-hander works to your advantage; but a steep camber in a left-hander works against you, decreasing traction and eating up leanover clearance.

Consider one motorcyclist following the center of the lane (the car line) compared to another motorcyclist following a straighter line (the bike line). Not only does the bike line keep the motorcycle more vertical, it also places it in the lane to take advantage of a crowned road. Entering a turn from the outside helps make the best of a well-cambered surface. Entering a right-hander, you can carve over toward the right edge of the pavement where the camber is steepest. Entering a left-hander, you can ease over toward the center of the road where it’s more level.

We often describe our cornering lines in terms of the apex — the imaginary point where the motorcycle passes closest to the inside of the curve. The location of the apex determines the shape of your line. If you turn in early and point the bike toward the inside of the curve too soon, you'll pass by an “early” apex. The problem with an early apex is that you’re tempted to carry too much speed into the turn, and then halfway around, realize you’re running wide.

Imagine a delayed apex somewhat farther around the turn. In a right-hander, you’ll need to make your turn-in closer to the centerline, and a bit later. In a left-hander, the turn-in point should be close to the outside edge of the road. The delayed apex (sometimes called a late apex) provides a better view ahead, conserves traction during the last half of the turn, keeps you away from those sideswipe zones and points the bike more around the curve. A delayed apex line is a good idea for riding public roads where anything can happen.
Let's imagine an ideal delayed apex line through a blind right-hand curve. You don't have to see the actual position of your imagined apex, just mentally slide it a little farther around the corner than where you think the actual road apex might be. A delayed apex line works just as well in a left turn, with your imagined apex along the centerline, a little farther around the turn.

*Editor's note: For the final installment of this topic, see “Corning Control Part III: The Throttle” in the June issue of Knowledge.*
WHO’S IN YOUR AIRSPACE?
COMPILED BY THE KNOWLEDGE STAFF

Have you ever been surprised by an unmanned aircraft system sharing the same airspace? I think a significant number of Army aviators would say they have.

There are many control measures in place to help aviators avoid mid-air collisions, one of them being “see and avoid.” But what control measures do the operators of the UAS community have in place? What raises concern for most trained aviators is the “unmanned” part. Extra caution should be exercised when aviators share airspace with UAS equipment because they are unmanned.

Increased development and use of UAS for both the military and civilian sectors has created a necessity for control measures to ensure safe operation. The concern we have is legitimate, but we should be confident in operating around unmanned aircraft knowing their operations are regulated and safety control measures are in place.

There are many UAS applications. Most are now overseas for combat operations, but there could be increased use within the U.S. for homeland security, civilian cargo operations and law enforcement. UAS are controlled either manually or through an autopilot using a data link to connect the pilot to their aircraft, and the number of them in the sky is increasing.

In the U.S., about 50 companies, universities and government organizations are developing and producing roughly 155 unmanned aircraft designs, according to the Federal Register. As late as October 2005, the Federal Aviation Administration had no pilot certification processes or procedures for UAS pilots in place for operating an aircraft in the National Airspace System. The Army, Department of Defense and FAA, through the input of many experts in numerous organizations, have now established regulations, training requirements, standard operating procedures and restrictions to allow UASs to operate safely in both combat environments and the NAS.

Typically, military UAS operate within restricted airspace, and details of their operations are highlighted in notices to airmen, both local and FAA. The increased use of the UAS in the NAS has led the FAA to move toward implementing requirements such as a Certificate of Authorization or Special Federal Aviation Regulations. The COA is a waiver authorizing UASs to operate under specified conditions in a specified location and have typically been reserved for government agency use.

Most UAS operators and entities have been aligned with their corresponding aviation counterparts, allowing safer operations. The Army has moved UAS operations to the aviation branch, which operates in accordance with Army Regulation 95-23. Aligning UAS operations with Army aviation has enhanced safety in areas such as training, qualification requirements and currency requirements.

As operations and systems have grown, safety considerations will continue to be discussed and improved. One challenging safety consideration is the see-and-avoid aspect of collision avoidance because UAS are designed to look down and not around. Currently, there are control measures in place, such as training requirements and regulations, which improve the safe operation of both manned and unmanned aircraft in the same airspace. Understanding UAS operations and becoming familiar with their operators’ requirements will allow those of us flying the manned assets to share airspace safely both in combat and the NAS.
STUMPED
RETIRE SERGEANT 1ST CLASS BILLY SHOCKLEY
Enterprise, Ala.

While stationed at what was then known as Fort Lewis, Wash., I was an avid boater. My family and I frequently took boating trips, and I was confident in my abilities. All my boating experiences to this point had been fun and trouble free.

During a PCS to Fort Rucker, Ala., I purchased a boat during the road trip to my new assignment. Once settled, my wife and I decided to try our luck fishing on post at Lake Tholocco. It was a sunny day — not too hot and not too cool.

Although I wasn’t familiar with my new boat, I was sure I could handle it. As we prepared to launch, my wife pointed out the outdoor recreation building and suggested we stop in and scope things out. Being stubborn, I confidently told her, “Nah, I’ve got this.” Besides, before entering the water, I read the signs posted next to the launch showing the direction of travel on the lake for boaters. See, I did have some knowledge.

Cruising around at a leisurely pace so I could get familiar with my boat, we explored the lake. Then something caught my attention at the far end of the lake. Several Jet Skis were buzzing around, and I decided to check them out.

As I approached the area, the water became shallower. I didn’t think that would be a problem. What I didn’t take into account, however, was the fact that my boat was heavier than the Jet Skis and I should take some precautions as I proceeded. Suddenly, I felt a slight bump in the steering control. My first thought was I had a stiff steering wheel that needed breaking in. Boy, I was wrong.

As I looked in the water, I could see tree stumps. I let off the throttle quickly, and my wife and I looked at each other in disbelief as the boat came to a sudden stop. There I was hung up on tree stumps in a lake!

Not taking the time to learn about the lake and all of its associated hazards proved costly for me that day. My boat only sustained minor damages, but my ego definitely took a blow. Even though my wife and I took precautions such as wearing our life jackets and ensuring we had lifesaving equipment onboard, I overlooked a very basic fundamental of boating — knowing the layout of the lake.

If I’d listened to my wife and stopped at the outdoor recreation office, I would’ve known there were stumps under the water. The lakes we boated on in Washington didn’t have those types of hazards, and I assumed this one was no different. Also, before heading out on any body of water, take the time to get familiar with state, local and post regulations for operating a boat. Trust me, you’ll be glad you did.

FYI
According to the U.S. Coast Guard, each year, hundreds of lives are lost, thousands are injured and millions of dollars of property damage occurs because of preventable recreational boating accidents on U.S. waterways. Too often, pleasure outings turn tragic. You — as a boat operator, passenger or concerned individual — can make a difference. Visit http://www.uscgboating.org/safety/default.aspx to learn more.
The All-nighter
LT. COL. EDWARD C. GUILFORD JR.
Installation Safety Office
Camp Atterbury, Ind.

It was another Army class away from my family, but they were not strangers to me being gone. After three deployments, my wife and kids were accustomed to Dad leaving. We were all grateful this trip would last only six weeks. But with winter approaching, there were a lot of projects on the home front that needed my attention before I left.

Class was scheduled to begin on a Thursday, and the welcome packet stated that we should arrive a day early. However, we weren't required to sign in until class started. My plan was to leave Wednesday morning after taking our two youngest children to school. Unfortunately, I wasn't as far along on the house projects as I wanted to be, so I came back home after dropping them off.

My oldest son usually took up the slack while I was gone, but he was now away at college, so it was up to me to finish them. All I had left to do was cut the grass, vacuum the pool and put on the cover, and pack up for the trip. How long could that take? Of course, these things never go as planned, and time quickly slipped away. Before I knew it, I was starting an 11-hour trip at 9 p.m. Class began the next day at 7:30 a.m., so I had no other choice but to drive through the night.

Although I'd pulled many an all-nighter in college, I was getting a little too old for this. We'd taken a few all-night trips for vacations when the kids were younger, but I had always planned better. I would sleep for several hours before departing, and I had my wife as a very capable assistant driver. That was not the case for this trip — no nap or a-driver this time.

I began the trip by filling up the car with gas and grabbing a large Coke. All went well for the first couple hours. Around midnight, though, I started to get weary. I thought to myself, “How in the world am I going to make it all night when I am already exhausted?” My ego told me I could do it. Besides, what choice did I have?

Several times I dosed off, but the rumble strips on the side of the road woke me up before I did any damage. However, I couldn't shake the nagging feeling of, “What if there had been a car beside me and I ran them off the road? What if the car had been a family on their way to a fall vacation?” I tried all the tricks. I drank more caffeine, ate chocolate, turned up the radio, rolled down the windows and chewed ice. Finally, at 3:30 a.m., I'd had enough. My tricks weren't working any longer, so I exited the highway, found a well-lit parking lot, set my alarm for 3:55 and took a nap. I calculated that I could sleep for 20 minutes and still make my report time.

Fortunately, this story has a happy ending. I arrived at the training site just in time to check into my quarters, shave, change into my uniform and report into class right at 7:30 a.m. But this story could easily have ended in tragedy. What if I had run off the road and injured or killed myself or, even worse, hurt or killed someone else? Would it have been worth it? Would my wife have said, “Well, my husband is dead, but at least the grass got cut.” Would the kids have said, “Dad's in a wheelchair, but it's OK — he got the pool cover on.”

At the time, I felt as if I had no choice. But there is always a choice. I could have swallowed my pride and left some of those projects undone. I could have called the head of the course I was attending, explained the situation and arrived a few hours later. Sure, it worked out this time, but will it next time? Would I gamble with my life again? I don't think so.
TEACH FROM OUR MISTAKES
CHIEF WARRANT OFFICER 2 JUSTIN BIELSS
C Company, 2-149th MEDEVAC
Forward Operating Base Salerno, Afghanistan

We should not just learn from our mistakes, but also teach from them. Mistakes are a common occurrence for all of us and can be as small as leaving our CAC in a computer to forgetting to close out a fuel check. Some mistakes could even result in a Class A accident.

Being human not only guarantees we will make mistakes, but that we will continue to make them in the future. So why is our first reaction to making a mistake to try and cover it up? Yes, mistakes are embarrassing and we, as professionals, do not like to announce our fallacies. But why should we be the only ones to learn from our mistakes? I feel it is our obligation to share them with others so they can learn from them too. It might save someone’s life.

Early in my aviation career when I was an OH-58A/C crew chief, I learned a valuable lesson. When I was TDY on a mission working on -58s, one of the veteran aviators, a Vietnam-era pilot with more than 30 years and thousands of flight hours, shared a mistake he had made.

He had departed single pilot in route to the TDY location. Shortly after takeoff, he realized the airspeed indicator was not operating properly because it indicated only 15 knots when he knew he was traveling much faster. He quickly began to assess the situation to determine the issue. While crosschecking his instruments and running through possible reasons in his mind, it occurred to him what had happened. He leaned forward in the seat, looked at the nose of the aircraft and saw the cover was still attached to the Pitot tube. After landing at a nearby airport and removing the cover, all was well.

He was alone in the aircraft and could have kept the mistake to himself, but he chose to share it. He realized mistakes happen, and if we don’t share them, others could make the same mistakes.

Hearing about a simple mistake this seasoned aviator made had a tremendous impact on me. It changed how I not only view mistakes I make, but also how I view those others make. It taught me that I too should be able to share my mistakes — no matter how embarrassing they may be — so others might possibly avoid them in the future. It is vital that we, as professionals and leaders, encourage others to share their mistakes and experiences because if we do not we are missing a valuable training opportunity.

Later in my career, after becoming a pilot flying OH-58A/CS, I always thought of that seasoned aviator’s mistake when I performed my preflight. It served as a good reminder to always remove the Pitot tube cover. I was fortunate enough to learn this lesson early in my career. Now, I always teach from the mistakes I make so I am not the only one learning from them.
STAYING FIT TO FIGHT
SGT. 1ST CLASS OSCAR ROSALEZ
25th Combat Aviation Brigade
Wheeler Army Airfield, Hawaii

One mile, no sweat, two miles, better yet! I bet that cadence echoes around installations every day as Soldiers conduct physical training. For Soldiers in the 25th Combat Aviation Brigade, 6:30 a.m. marks the beginning of our duty day, and PT is how we get it started.

All units need their Soldiers to be physically fit and ready to go at a moment's notice. When conducted properly, PT is an integral part of training that allows us to accomplish missions in the most demanding environments.

As the brigade safety noncommissioned officer, I manage all of the battalions' Army ground accident reports. I also have a direct link to the brigade's medical station that handles unit sick call. They send me a report of what's ailing Soldiers. When I started receiving the reports, I was surprised to learn that more than 50 percent of Soldier injuries and accidents were exercise related, not only on duty, but off duty as well. Don't get me wrong; Soldiers doing PT on their own is a good thing. The trend that concerned me is Soldiers aren't taking the proper precautions — both on and off duty — to protect themselves from injuries.

Organized PT requires us to run, jump, push, pull and lift. In most cases, even if a Soldier is on a profile and exempt from certain exercises, they are still required to participate. More often than not, they are pushed to their limits. Unfortunately, I've witnessed cases where there's been no forethought into the type of exercises executed and inadequate supervision to ensure they were conducted correctly. The instructors of these exercises are usually fit and healthy Soldiers, and there's no limit to the type of exercise they may require us to do. They come up with exercises they believe will get us in better shape and help us pass a PT test.

But here's a fact that's often overlooked — not all Soldiers are built the same or have the same strength or stamina. Heavy Soldiers cannot run those longer distances and are subject to injuries while attempting to complete the run. How many times have you seen someone fall out of a run and get left behind to finish alone? Those Soldiers are subject to injury. They are tired and not focusing on the road or what's ahead of them, but they know they have to finish.

We lift water cans, tires, logs and even our own buddies for PT. Soldiers sometimes lack the ability to lift heavy objects; they strain and hurt themselves when attempting to these exercises. Do we NCOs, leaders, take into account that some Soldiers aren't as strong as us and may need extra supervision to get to the point of being able to lift heavy objects? We need to understand that a PT program tailored to our Soldiers' abilities is the best way to get them in shape, sustain their fitness level and keep them safe.

Soldiers need to understand there's risk associated with PT and sports activities both on and off duty. They should take into account the weather, surf reports, running routes and underlying factors that may hurt them or their friends. Leaders must ensure Soldiers understand and use the risk management process to identify hazards during any type of physical activity.

Soldiers will do the right thing when leaders encourage and teach them what right looks like. Not all Soldiers jump in with an attitude of leaping before they look. We can ensure that our Soldiers are physically and mentally ready if we take the time and mentor them. With our guidance and leadership, we can help reduce the number of injuries on and off duty. After all, having healthy and physically fit Soldiers benefits everyone.
Off-road motorized recreation with motorcycles or four-wheel all-terrain vehicles has gained rapid increases in popularity. Riders of all ages are learning to tour backcountry and race competitively in a wide variety of venues. Due to the high speeds, potential for injury can be high. However, injuries can be reduced in number and magnitude by following some basic safety principles.

Preparation is the key to a safe, enjoyable ride.

Get in Shape for Off-Road Activity
A common misconception is that “the bike does all the work.” One must prepare for the ride by engaging in a pre-ride fitness program. Cardiovascular training is critical. Many riders will use bicycling on the road or trails to prepare themselves for their competition. Strength training with emphasis on the large hip and leg muscles, trunk stabilizers and grip strength enhance the rider’s ability to control the dirt bike for extended periods. For beginning riders, training should consist of a general endurance, strength and flexibility program conducted several days per week. Do not ride to get in condition, be in condition to ride.

Competitive riders should perform cardio training (jogging, treadmill, etc.) off the dirt bike at least five hours per week and weight train three days per week. Flexibility programs before every session on or off the bike can better prepare and increase the effectiveness of the training session. Working with a personal trainer knowledgeable in these sports and a techniques coach can increase a rider’s performance significantly.

Ride at Your Own Skill Level
Skill preparation and training can decrease injury potential and magnitude. Beginning riders should strongly consider a formal program such as those developed by the Motorcycle Safety Foundation and supported by major motorcycle and ATV manufacturers (see www.dirtbikeschool.org). One must ride within one’s own skill level. Initial training should be in open fields, dirt lots or dirt roads or trails.

Motocross tracks should be for more experienced riders. Individual tracks may have mini, veteran and main tracks for various levels of riders. The rider should ride on a track appropriate for his skill. Tracks should be evaluated for their commitment to safety with trained flaggers, fences and on-site medical personnel. Children must always be supervised. When a rider desires to begin racing, he should obtain additional training and knowledge of racing techniques and rules prior to the first competition.

Protect Yourself from Injury
Protective equipment designed specifically for the sport and the individual must be worn whenever one is on the bike. The body should be protected from head to toe. When any item of protective gear is damaged, it must be replaced or repaired. MSF schools will provide equipment and bikes for the lessons, allowing beginning riders to experience the sport without needing to purchase equipment.

The helmet should be designed for the sport with full-face coverage, including chin protection. The helmet should be worn at all times one is on the bike or on the track. Certification by the Snell Foundation ensures a quality helmet. Children’s helmets should be of the new design, not just mini-adult helmets. If a helmet is damaged in any way, it should be replaced. Most manufacturers will check a helmet for integrity following a crash. Buying a used helmet is not recommended. Mouth guards are helpful to prevent dental and jaw injuries and may decrease head injury severity. Eye protection with sport-specific goggles should always be worn with the helmet.

The upper extremities and chest should be protected with a long-sleeved jersey, elbow pads and gloves. The chest, shoulder and upper arms should be protected with a polycarbonate chest protector with shoulder and arm extensions. An alternative device is an under-jersey garment with protective cups and pads. Most riders will also wear a supportive lumbar spine (lower back) wrap.

The lower extremities can be well protected with motocross pants with hip and coccyx (tailbone) pads. The knees should be supported with a functional knee brace with a patellar (kneecap) cup. These braces come in many forms and prices and are available from local motorcycle dealers, by mail order or from your orthopaedic surgeon. High boots designed for off-road riding should be worn by both dirt bike and ATV riders. They should fit well and be secured prior to starting the machine.
Additional protective equipment, such as neck rolls, custom knee braces and wrist braces, are sometimes used but their effectiveness in preventing or reducing injury has not yet been determined.

**Keep Your Equipment in Top Shape**
The vehicle must also be well prepared and suited for the event. Riders should choose a bike or ATV appropriate for their age, size and experience level. Most states will not allow children under 16 to ride larger bikes and ATVs. A pre-ride inspection is always performed including inspection of the tires and wheels; inspection of controls, lights and electric as equipped; oil and other fluids; and inspection of the chassis, including the suspension and drive chain. Maintenance of the bike should be performed regularly to prevent catastrophic failure.

Off-road riding is a fun recreational and competitive sport enjoyed by increasing numbers of male and female athletes of all ages. Although injuries do occur, their frequency and severity can be decreased by improving the rider’s fitness and skill level, using the proper protective equipment, making the correct bike choice and maintaining it in excellent condition, and riding within one’s own ability.

*Editor’s note: Reprinted with permission from the American Orthopaedic Society for Sports Medicine.*
A SIMPLE MISSION?
CHIEF WARRANT OFFICER 2 JASON GREENE
B Company, 2nd Battalion, 3rd Aviation Regiment,
3rd Combat Aviation Brigade
Hunter Army Airfield, Ga.

It was another hot afternoon in the eastern part of Afghanistan known to many as RC-East, where the temperature can exceed 120 F in the summer. My unit was tasked with providing two CH-47D Chinook helicopters to transport 40 personnel from Kabul to Bagram Airfield. This was supposed to be a simple mission, but as everyone knows, there is no such thing.

Crew mixes were selected based on flight hours. I was the most junior pilot on the flight with about 400 hours. My pilot in command/air mission commander who was a major had more than 1,500 hours. The crewmembers in Chalk 2 were all experienced on the aircraft, one being the platoon sergeant/flight engineer, a squad leader/flight engineer, a very seasoned crew chief and the battalion flight surgeon who was riding in the jump seat.

At about 12:30 p.m., we headed to the aircraft to perform our pre-mission checks so we could accomplish a 1:30 p.m. departure. At 1:25 p.m., I gave Chalk 1 a radio call, and he called the tower for departure. Ten minutes into the flight and after frequency changing with tower, I announced to the crew I'd be inside performing a cruise check. We were flying at about 1,000 feet above ground level at 110 knots indicated airspeed.

One minute into my check, I felt the aircraft vibrating excessively. I immediately looked up and saw we were flying directly behind and a little bit lower than Chalk 1. Every pilot knows this is a big no-no when flying formation in any helicopter. Needless to say, I looked at the major and then the other aircraft two or three times. Then, as soon as I was about to ask him if he could go left or right, same level or higher, he made an input and the aft end of the Chinook swung around past the front.

I reached for the flight controls and tried to get the aircraft back under control. The aft end then went vertical where I could actually see the ground through the greenhouse windows. The inertia reels locked, preventing us from getting to the advanced flight control system control switch. We both fought on the controls for what seemed like minutes, but actually only about 15-20 seconds. When it was all said and done, we'd managed to get the aircraft under control where we were facing the opposite direction of flight. I was then told to call Chalk 1 and inform them that we were returning to base because of possible flight control malfunction.

During the incident, the crew chief on the ramp was tossed out the back but managed to pull himself back in with his monkey tail. The FE who was at the right door — who wasn't wearing his seat belt but had his monkey harness connected — was tossed into the heater closet, while the other FE on the left gun stayed restrained in his seat. One of the craziest things about this event was that Chalk 1 had a passenger onboard who was actually recording us but had turned off the camera just prior to the incident.

After we returned to Bagram, we had the maintenance test pilot check out the aircraft, and he could not find anything wrong. There were no injuries, but because of this event, everyone onboard, including the flight surgeon, was done flying for the rotation. The incident was also reported up the chain, where some speculated that it was the winds off the mountains or just problems with the AFCS.

A couple of weeks after the investigation, a report came out stating that the integrated lower control arms weren’t getting enough voltage, which caused the system to perform erratically. To this day, I still think our position in reference to Chalk 1 played a part in the incident. This was supposed to be a simple mission but, as everyone knows, there is no such thing.
ARE YOU EXPERIENCED?
THOMAS E. IRVIN
1st Brigade, 14th Aviation Regiment
Fort Rucker, Ala.

I began riding motorcycles at the age of 12. For me, that’s 28 years and 15 motorcycles ago. I’ve always considered myself an experienced and safe rider because of the time I have invested in motorcycles — that is until I took my last Motorcycle Safety Foundation-approved Experienced Rider Course.

I started out riding unapproved trails on a 350cc dual-purpose motorcycle without professional training or personal protective equipment. At that time, I couldn’t kick-start my own motorcycle or reach the ground with both feet, so I always took off from a picnic table bench. Safety was never a concern for me because I learned to ride unsupervised and no one ever instructed me of its importance. Without realizing it, I had created the perfect accident setting from the beginning.

When I was finally old enough to obtain a license to ride on the street, I promptly went to the Department of Motor Vehicles and took the test. Still, I continued to ride motorcycles well above my experience level and without PPE. About a year later, I had my first street accident, and because I came away unscathed, I kept riding as I had in the past. It wasn’t until my second street accident a year later that I had learned the importance of PPE. It was a painful lesson, as the accident left me with severe road rash on my right shoulder.

By the time I joined the Army, I had eight years of “riding experience” but was still ordered to attend the MSF-approved Basic Rider Course. For the first time, I was formally educated on the importance of motorcycle training and the required PPE. To attend the riding portion of the course, I had to wear a Department of Transportation-approved motorcycle helmet. I learned that even though the state where I was licensed didn’t require me to wear a helmet, the Army required I wear one no matter where I rode. Additionally, I learned the PPE requirements for motorcycles also applied to off-duty and off-post operation. My BRC instruction was the beginning of an attitude change and the start of my formal progressive motorcycle training.

My last ERC motorcycle training, which was mandated by the command, took place after a deployment and was required for Soldiers prior to riding a motorcycle. Realizing motorcycles are an increasingly popular mode of transportation for many Soldiers, my command placed this requirement on the unit to mitigate post-deployment risk. Though much of the ERC was the same as prior training, it did cover some new topics. For example, I learned additional cornering skills that were not covered in my other training, braking techniques from the instructor and other riders, and how to apply the MSF T-CLOCS pre-ride inspection sheet (see Motorcycle Safety Inspection Checklist below) to my routine.

Even though I was a long-time rider, this training made me realize I wasn’t as skilled as I previously thought and that several of my riding habits were not conducive to safe riding. When it comes to motorcycles, the number of years riding doesn’t always equal the correct experience.

Motorcycle Safety Inspection Checklist
The Motorcycle Safety Foundation developed T-CLOCS to assist motorcycle drivers in completing a comprehensive pre-ride (or pre-purchase) motorcycle inspection. The individual letters stand for the specific areas to be checked:

- Tires and wheels
- Controls
- Lights
- Oil
- Chassis
- Stand

The T-CLOCS inspection should be conducted at least twice a year to ensure safe riding.

Did You Know?
May has been designated as Motorcycle Safety Awareness Month. The National Highway Traffic Safety Administration encourages drivers to become more aware of motorcycles on the road, especially during the warmer, busier summer riding months.
ACCIDENT BRIEFS

AVIATION

ROTARY-WING

UH-60A
Class C

The stabilator was damaged when the aircraft struck a tree as the pilot attempted to avoid a flock of birds.

The aircraft experienced a TGT overtemp condition, which required engine replacement. The No. 2 engine inlet plug was reportedly still in place during start-up.

UAS

MQ-5B
Class A

The system was damaged when it veered off the runway and into a concrete draining ditch.

PUMA
Class C

The system encountered an engine overspeed during new-operator training. The vehicle initiated a rapid descent and struck inside the impact area of the range.

RQ-7B
Class C

The crew experienced failure of the right flap servo during landing. The chute was deployed and the system recovered with damage.

GROUND

ACV
Class A

One civilian was killed and another injured when a Mine Resistant Ambush Protected vehicle collided with their privately owned vehicle. The MRAP was part of a convoy when it turned and impacted the POV. None of the Soldier occupants of the MRAP were injured.

AMV
Class A

A Soldier died after the HMMWV he was driving overturned. The Soldier was attempting to change lanes and lost control of the vehicle. Seat belt use was not reported.

PERSONNEL INJURY

Class A

A Department of the Army Civilian died while participating in an equipment recovery dive.

A Soldier was killed after being stuck by a round from a hand gun. The Soldier was reportedly showing his girlfriend how to use his privately owned weapon when she discharged a round into his upper chest.
Class B
A Department of the Army Civilian was injured while performing maintenance on a Light Medium Tactical Vehicle. The DAC was supporting the drive shaft, with his thumb in the yoke, when it fell and pinched his thumb. His thumb was severed at the first knuckle.

A Soldier was injured while handling fireworks. He was holding a mortar when it ignited in the tube, injuring both his hands, resulting in the partial loss of three fingers.

A Soldier was injured after being struck by a train. He was retrieving his jacket from the track when his leg became pinned by the train. The Soldier lost part of his leg below the knee and alcohol was reported as a contributing factor.

DRIVING

PMV-4
Class A
A Soldier was killed when he was ejected from a vehicle driven by another Soldier.

*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 usarmy.rucker.hqda-secarmy.list.safe-knowledge@mail.mil.*
COMMUNICATION BREAKDOWN
FROM THE CSM
THE SAFETY GAMBLE

After the nationwide frenzy surrounding last month's gigantic Powerball jackpot, I started thinking about odds. The average American stands a one in nearly 176,000,000 — that's 176 million — shot of winning any Powerball drawing within his or her lifetime. Yet countless people, including Soldiers and Family members, flock to convenience stores and other lottery outlets week after week, believing they'll pick the lucky numbers. What's puzzling to me, though, is that even while holding on to this far-flung hope, many think an accident could never happen to them.

Turns out, the lifetime odds of dying in an accident hit a little closer to home.

In a car: one in 242
From falls: one in 269
As a pedestrian: one in 610
By drowning: one in 1,028
On a motorcycle: one in 1,295

Those odds increase in direct correlation with indiscipline. Riding without a helmet or driving without a seat belt is a sure way to get your proverbial ticket punched should an accident occur. Driving, riding and swimming are just a few of the activities that make alcohol a losing bet. And speeding, whether it's on the road or one of our nation's many waterways, can make your luck run out even faster.

The fact is, many of our Soldiers gamble with their safety daily in ways both big and small. As a leader, it's your duty to know and address the who and how. There's no doubt you'll counsel the Soldier who's busted taking his helmet off just outside the gate or caught leaving the club drunk. But what about the one who routinely drives “just” 10 or 15 mph above the speed limit? There aren't degrees of indiscipline; it's a violation of the standards, plain and simple, and every instance of it must be dealt with accordingly.

We're now in our Army's deadliest time of year for accidents. Time off, PCS moves and other various events that have Soldiers away from work expose them to more risk. They deserve to enjoy their downtime, but we must ensure they do it wisely. Safety stand-downs, weekend safety briefings and informal conversations about personal risk management are all proven to have an impact on Soldier safety. Engaging with them more often, encouraging them to look out for one another and setting the example yourself can only increase the odds of everyone arriving back to your formation safe and alive.

There's no better time to start than now. June is National Safety Month, and the USACR/Safety Center has put together a media package to help focus your summer safety efforts. Informational articles, public service announcements from Army leadership, posters and other materials are all available at https://safety.army.mil for your convenience. The annual Safe Summer Campaign and Off Duty Safety Awareness Presentation are also live online, so there's no excuse for not having a robust summer safety program. We've made it easy — it's up to you to make it happen!

I've said it before, but it's critically important that we make Soldiers understand safety isn't a downer. Nothing kills the fun more than tragedy, a scene that's played out far too many times among Soldiers and their buddies off duty. Summer is a time for laughter and memories, not tears and memorial services for lives cut too short. Be a leader, set the example and your Soldiers will follow.

Thank you all for your hard work every day!

Army Safe is Army Strong!

RICK STIDLEY
Command Sergeant Major
U.S. Army Combat Readiness/Safety Center
COMMUNICATION BREAKDOWN
CHIEF WARRANT OFFICER 2 RYAN WOHLERS
C Company, 4th Battalion, 501st Aviation
Fort Bliss, Texas

The winds at Biggs Army Airfield in El Paso, Texas, can howl. Standing on the flightline, the view looks eerily like the mountains of Afghanistan we all know so well.

I was in my Annual Proficiency and Readiness Test window and geared up for a night standardization ride. The first aircraft we ran up had maintenance issues. After 45 minutes of troubleshooting with our crew chiefs, my instructor pilot decided to call it quits, shut down and find another aircraft for our evaluation.

My company had no back-up aircraft, and all of the fully mission-capable Apaches were already out on training flights. We were late on our takeoff time by nearly an hour and getting frustrated with the situation. After carrying our gear back into the hangar, I checked with the pilot in command for a tail number for a back-up from another company. My IP told me to preflight the aircraft and put my gear in the cockpit while he tracked down the logbook and maintenance personnel to launch us from the respective company where the aircraft was assigned.

The winds were kicking up greater than 30 knots and gusting to 40, so the aircraft was tied down and all the covers were in place. After removing the fly-away gear and conducting a thorough preflight, I placed my gear in the front seat. More than 30 minutes had passed by this point, and I knew we needed to update our weather and amend the takeoff time on our flight plan. My IP quickly approached the aircraft and told me to grab my gear to take it inside. He was unable to find the appropriate maintenance personnel to launch us and couldn't preflight the logbook. He called the commander to inform him of the decision to cancel the mission and left a voicemail.

I gathered all my gear and placed the engine intake cover plug in the No. 2 engine inlet because the winds were strong and the commander's intent was to secure all aircraft overnight on the flightline. Before I secured the No. 1 side, my IP was growing impatient and sternly said to leave the other side for the maintenance personnel to secure.

As we entered the hangar, the commander called back to inform my IP that he had made the proper calls and maintenance personnel from the appropriate company were on their way to resolve the situation. After a brief discussion, my IP agreed to continue with the flight — though our timeline was pushed almost two hours to the right by the time we took off.

We met the crew chiefs and looked at the logbook together. On the way back to the aircraft, I was instructed to get my things in the cockpit immediately and he would take care of the walk-around. I jumped right in and didn't think about the engine inlet cover plug I had installed before leaving the aircraft. We started both engines and immediately saw a 20-30 degree difference between the two engines. It took a few moments for me to realize the plug was still in the engine inlet, and the crew chief removed it without incident.

My IP and I talked about our communication breakdown and what we could do to prevent a similar incident in the future. I was down on myself for the whole flight about failing to remind him of the condition, and he was upset equally about his failure to discover the deficiency during his walk-around. Fortunately, the aircraft was pointed directly into a 30 knot wind and the engine didn't experience a soft stall or hot start during the start-up sequence. There was not a significant spike in turbine gas temperature during the start, only the 20-30 degree difference above engine No. 1 when then the TGT stabilized.

This incident could have easily resulted in a hot start, which is why it is imperative to always conduct a proper preflight and walk-around plus ensure communication and coordination between crewmembers. Stay vigilant and don't let complacency set in under any condition.
FRESH OUT OF LUCK
NAME WITHHELD BY REQUEST

It was June 28, 1997 — the night of the second Mike Tyson-Evander Holyfield fight. Everyone remembers that night because it’s the fight where Tyson bit a chunk out of Holyfield’s right ear. Unfortunately, I remember it for a different reason.

I was 21 years old, on top of the world and the proud new owner of a 1996 Honda CBR 600 F3. Man, that bike would fly. But I already wanted something faster. I always wore the proper personal protective equipment, including a helmet, gloves, heavy leather jacket and leather boots. On this night, however, I was wearing a helmet, long-sleeved shirt, boots and shorts.

I was attending a friend’s party on base about two miles from my barracks. Of course, there was a keg, and, of course, I was drinking. I’m sure you can already see the recipe for disaster starting to take shape.

We all know the fight was historic, but because Tyson was disqualified in the third round, it didn’t make for a good get-together. After a couple more drinks, I headed out with a large group of people leaving the party. One Soldier was doing the right thing by offering everyone a ride home. My riding buddy and I got into his truck and started to buckle up. At the last minute, though, I became concerned that the party host’s son might play with my bike and accidentally pull it over onto himself. I decided I should ride my bike to my barracks rather than leave it behind.

My riding buddy supported my decision and said he’d follow me on his bike. We then both cranked up our bikes and hit the road. As soon as my bike topped 10,000 rpm, the adrenaline and alcohol in my bloodstream mixed, and any semblance of good judgment went out the window. I was now a slave to my adrenaline addiction.

I raced off, leaving my buddy in the dust. Caught up in the moment, I accidentally flew past my turn. I turned around and accelerated to nearly 100 mph before slowing to about 70 mph and attempting to turn onto the road that led to my barracks. Unfortunately, I was fresh out of luck. I turned too early and went onto the grass. My bike quickly slipped out from under me, slamming my right shoulder onto the ground. I remember hearing the sound of plastic scraping and breaking.

Once I stopped sliding, I immediately stood up to make sure I was still in one piece. I located my bike and attempted to pick it up. However, I couldn’t lift it because the handlebars were broken in half. When I looked behind me, I saw that I’d slid nearly 200 feet! Then I saw something else that still horrifies me today — the twisted remnants of a stop sign that my bike had sheared off at the bottom. Had I been on the bike when it slid through that stop sign, I would have been cut in half just above the pelvis.

To this day, I don’t know how I managed to avoid being more seriously injured. As it was, I’d burned a hole in the toe of each of my boots and had some gouges in my right shin. I was lucky that night because things could’ve ended up a lot uglier. Since then, I have made it my mission to tell other riders about that night — the stupidest thing I have ever done. If it helps just one rider decide not to mix alcohol, adrenaline and speed, then it was worth it.
GUILTY
RISK MANAGEMENT DIVISION STAFF
U.S. Army Technical Center for Explosive Safety
McAlester, Okla.

Editor's note: The following article is based on an actual court martial proceeding that occurred several years ago. It is being reprinted with permission from the U.S. Army Technical Center for Explosive Safety's spring 2012 Explosives Safety Bulletin.

As the staff sergeant walked into the military courtroom to hear his fate, he had no idea what was about to happen to his military career. If he had only stopped and thought about what could go wrong, the sequence of events would certainly have been different.

The court was called to order. The staff sergeant and his defense counsel stood nervously, awaiting the verdict. As he waited, his mind wandered back several months to the day he cleaned out his range bag from the field exercise his unit just completed. The little cache of simulators he had accumulated over the weeklong exercise would really make for a great Fourth of July celebration at the lake. The artillery simulators would definitely make for one loud boom, and those green and red star clusters would look impressive with the rest of the fireworks he bought downtown.

He stashed the simulators in the front hallway closet of his on-base apartment since it was only a few days until the holiday weekend trip to the lake to celebrate America's birthday. He didn't realize that when he closed the door to the closet, the bag was jarred enough that one of the artillery simulators bounced out. Through opening and closing the door many times over the next few days, the pull cord on the simulator got tangled in the strings on a pair of shoes. As his wife later pulled the shoes out of the closet, the cord on the simulator was also pulled. The simulator began to whistle, and she realized something was not right. She did her best to back away from the door as the simulator exploded, knocking her against the hallway wall.

The explosion sent her into shock and caught the clothes in the closet on fire. Fortunately, the neighbors helped her and her 4-year-old daughter out of the apartment and extinguished the flames before the fire department and authorities arrived. Luckily, the other items did not ignite or detonate, which would have increased the size of the fire and endangered the entire building.

As the military police, explosives ordnance disposal detachment specialists and criminal investigation division officers began to investigate the events, it was evident the young staff sergeant made several mistakes during the last training exercise in which he would ever participate. The judge's gavel brought him back to reality as the verdict was read. His fate was sealed as the judge found him guilty on eight different charges and sentenced him to 10 years of hard labor, forfeiture of all pay and allowances, reduction to the lowest military rank and dismissal from the U.S. Army with a dishonorable discharge. His 11-year career was history, his family lost all its military benefits and their lives would never be the same again.

The staff sergeant just forgot to think. He never considered the consequences of what would happen if his wife or daughter was hurt or killed if the simulator cache accidently exploded. If his daughter had opened the door and pulled those shoes out, she would not have realized what the whistling meant and could have possibly been seriously injured or killed. Those seemingly harmless simulators used in training are actually quite dangerous and can cause death. Unfortunately, we all go through those times when we think we can get away with things, and this one could have cost this family everything.

Always remember, military munitions are not toys and should never be removed from the training areas or exercises. In the wrong hands, they can cause pain and suffering to the ones we love. So, next time someone tells you they have the stars and boomers for the fireworks show, make sure they're talking about commercial fireworks you can legally buy at a stand, not military simulators and pyrotechnics.
In early summer of 2011, our flight company was tasked with a two-part service mission. The first part required us to airlift an infantry unit based at Camp Dawson, W. Va., to Fort A. P. Hill, Va., for a three-day field training exercise.

At the end of the FTX, the second part of the mission would commence with the air movement of the requesting unit back to their home station. The lifts required two CH-47Ds based at Weide Army Airfield in Edgewood, Md. The estimated flight time for each lift would be about 3½ hours. The nearly 400-nautical-mile flights had three legs that avoided Baltimore and Washington, with the first moving in a counterclockwise direction and the second in the opposite direction.

The flight crews consisted of the commander, a pilot in command and rated maintenance test pilot; a new flight platoon leader, a first lieutenant who sat in the jump seat to learn and observe; and a new warrant officer performing pilot duties. This crew, along with its nonrated aviators in the back, would fly in the No. 2 aircraft on both lifts. I was the PC of the lead aircraft with another new warrant officer as my PI. In back, I had an experienced standardization instructor and crew chief crewing.

The first lift went as planned in the early hours of Tuesday morning, when we delivered the infantry unit to Fort A.P. Hill at the on-target time of 9 a.m. We then refueled and proceeded back to base. The second lift required us to pick up the infantry unit at 2 p.m. from A.P. Hill and return them to Camp Dawson. Show time was 10 a.m. with a 1 p.m. takeoff time from Weide AAF. The mission proceeded as planned, as we flew the unit to its destination, shut down for refuel and then departed on our third leg for home.

We accomplished good training and mentorship for our new pilots during the missions, but the last 10 minutes of the third leg started to unravel quickly. Initially, we started from Dawson AAF with a climb to 5,000 feet for terrain clearance and to take advantage of smoother air above the mountaintops at 3,000 feet. After approximately 45-50 minutes of flying, we flew out of the Appalachian Mountains and into decreasing elevation to the east. When we passed Fredrick Municipal Airport (50 nm west of Weide), we descended to 3,000 feet. There was a thin, scattered layer of clouds forming at what I estimated was 1,500-2,000 feet altitude. As we continued our track, the cloud layer gradually began to thicken, so I asked the commander if he wanted to descend to 1,000 feet. He replied, “No, let’s stay on top.”

The gaps in the cloud layer became few and far between, so I advised my crew that when we got closer to home, we might have to do some maneuvering to remain visual flight rules while descending through any potential cloud openings up ahead. Six miles from home, the cloud layer really began to thicken. We pressed on about two miles, passing our destination in an effort to locate a suitable opening, to no avail. The air mission commander then announced a 180-degree turn back to the west, affectively establishing a lead change. I instructed my PI to get out the approach plate and contact Potomac approach to request radar vectors for the localizer 15 approach into Martin State Airport. This is an airport about seven nm southwest of Weide that we often use as a recovery procedure should we encounter inadvertent instrument meteorological conditions in our area.

My PI was focused on contacting approach when I noticed he hadn’t pulled out the approach plate. On top of that, he was getting frustrated with approach because he couldn’t get his request in due to the late afternoon traffic being recovered into Baltimore/Washington International (a Class B airport) about 15 nm southwest of Martin State Airport.

At that point, I noticed the AMC aircraft maneuvering through a clearing, and my flight engineer announced it over the internal communications system. We were both on the right side of the aircraft when I announced I was going for the second clearing about one-quarter mile from the first. The FE and I visually maintained eye contact with the other aircraft in an effort to minimize the chances of a mid-air collision. It was turning away from our position as it descended through the clearing. I had to react quickly and do some maneuvering to get our aircraft through that second hole. What worried me the most was that I knew of several 300-foot-tall towers in that area. I thank the Lord the ceiling was at 1,000 feet as we descended through the clouds and linked up with Chalk 2 for the short dash to Weide.
This was a classic case of “get-home-itis,” in which I failed to go with the conservative plan to fly the localizer approach. I saw my PI was having some issues, but, instead of helping him through the situation, I chose to follow the AMC with an impulsive move to expeditiously get us home as a flight.
GET OFF MY TAIL
MAJ. JEFFREY L. WEBBER
South Carolina Army National Guard
Columbia, S.C.

We all know that the best safety feature on a vehicle is the reflection of a police car in our rearview mirror. That will make anyone drive more cautiously. But how often do we see something else in our rearview — the speed demon who believes they can make us go faster by riding our bumper?

Recently, while driving on a two-lane state highway with a posted speed limit of 55 mph, I had a “soccer mom” on my tail. She was close enough that I could see she had two child seats and about half a store’s worth of groceries in her Dodge minivan. It was obvious she was in a hurry, which I figured was because: a) she was trying to get her ice cream home before it melted; b) she had a screaming child in the backseat that needed changing; or c) she needed to get home to let the dog out before it soiled the carpet. In any event, she wanted me to drive faster, get out of the way or pull over.

If we use the three E’s of safety — enforcement, engineering and education — to remedy the tailgater situation, we are faced with the following realities. Enforcement is not a viable alternative because we can’t expect police to be everywhere. Engineering has been a valuable means of improving a vehicle’s stopping distance once the brakes are applied, but it is only as effective as the reaction time of the driver coupled with the distance maintained between vehicles. Therefore, we must educate drivers about maintaining a proper following distance.

So how do we know what the proper following distance even is? It actually depends on a couple of factors, such as how fast you are driving and the road conditions. The two-second rule is a pretty good guide. Measure your following distance by choosing a stationary object, such as a sign, tree or overpass. When the rear bumper of the vehicle in front of you passes that landmark, start counting, “One thousand and one, one thousand and two.” If you reach the landmark before you finish counting, you are following too closely.

Keep in mind that two seconds is a minimum following distance you should maintain. It applies to daytime driving in good weather conditions at speeds less than 40 mph. Use the two-second-plus rule when traveling at higher speeds, visibility is low, or weather or road conditions are less than ideal.

Under the two-second-plus rule, drivers should maintain a following distance of two seconds — plus additional seconds for each additional driving condition. For example:

<table>
<thead>
<tr>
<th>IF</th>
<th>ADD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traveling at more than 40 mph</td>
<td>2 seconds</td>
</tr>
<tr>
<td>Driving at night</td>
<td>1 second</td>
</tr>
<tr>
<td>Motorcycle in front of you</td>
<td>1 second</td>
</tr>
<tr>
<td>Fog or poor visibility</td>
<td>1 second</td>
</tr>
<tr>
<td>Pavement is wet</td>
<td>1 second</td>
</tr>
<tr>
<td>You’re being tailgated</td>
<td>2 seconds</td>
</tr>
<tr>
<td>Tailgating vehicle is a bus or tractor-trailer</td>
<td>4 seconds</td>
</tr>
<tr>
<td>Towing a trailer</td>
<td>2 seconds</td>
</tr>
</tbody>
</table>

(Note: If several conditions apply, add up the extra seconds for all of them.)

Use the two-second and two-second-plus rules to check your following distance from time to time. By doing this, drivers can learn to automatically maintain a safe following distance no matter the conditions.
‘STICKING’ IT TO VEHICLE ACCIDENTS
DIRECTORATE OF LOGISTICS
Fort Knox Transportation Motor Pool
Fort Knox, Ky.

Often, a simple approach to safety can be effective. What started as an aggressive, revamped vehicle backing safety program evolved into a unique initiative that reduced Fort Knox transportation motor pool nontactical vehicle accidents by 50 percent. Here’s how we did it:

For several years, there was a rash of fender benders in the TMP. Although these were minor accidents that only damaged vehicles, personnel from the Fort Knox Directorate of Logistics and contract employees realized something had to change. After carefully studying the mishaps, it became apparent there was a common type of accident that involved driver error — improperly backing a vehicle.

We decided to revise our vehicle backing safety program and implemented several measures such as requiring all contract drivers to “combat” park (when they pull out of a spot, they are facing forward). Additionally, prior to backing up, bus and tractor-trailer drivers had to radio the dispatch office before exiting their vehicles and performing their 360-degree clearance checks. Once drivers reported an “all clear” to dispatch, they were given the OK to proceed. Dispatch personnel also reminded drivers to use a ground guide.

To date, these small steps have removed all backing accidents for DOL-contracted drivers. For our team, this was an indication that implementing easy guidelines would produce the positive effects we were seeking.

We continued to look for other ways to reduce nontactical vehicle accidents for all drivers, not just those who are contracted. With more than 700 vehicles assigned throughout Fort Knox, we knew it wouldn’t be feasible or practical for the drivers to radio dispatch for clearance. So we looked for an innovative solution and decided an “in-the-face” reminder to follow Army regulations might do the job. A 50-cent sticker/decal proved a winning solution.

After affixing decals to the fleet of TMP vehicles that stated, “Look before backing! Use ground guides, or dismount & perform a 360 degree walk around. Ensure adequate clearance & safety! Fort Knox Reg: 385-10, Para 4-4,” the number of backing accidents dropped to zero for all drivers. During the last quarter of fiscal 2012, the number of overall accidents has dropped an average of 50 percent, and the total cost of vehicle repair has dropped more than 50 percent.

All of these initiatives have been a joint effort among Fort Knox DOL, the contracting office representative and the contractor with a common goal in mind — preventing dangerous and costly accidents. We’re in this together, and collaboration and safety sense go a long way!
THINK CREW COORDINATION
CHIEF WARRANT OFFICER 3 JASON LILLY
B Company, 3-160th SOAR (A)
Hunter Army Airfield, Ga.

If you have never flown a Chinook, one of the first things you should know is it has a thrust control lever for vertical axis control, not a collective. Also, after the Apache's tandem seating configuration, the Chinook has probably the next highest level of breakdown in crew coordination between the rated aviators. This is caused by the extended space between the two pilots. The problem is further compounded on nights with low to no illumination when a pilot can't see the other pilot's actions in the cockpit.

It was just like any other typical, zero percent illumination summer night in Afghanistan. I was flying in the right seat of Chalk 3 in a flight of three Chinooks on a mission to assault three separate helicopter landing zones. The flights to pick up the assaulting force and to the target area both went as planned, as did the flight to our refuel and lager location. After refueling the flight and waiting several hours using the auxiliary power unit, we received the call that our ground force was ready for pick up.

I was on the controls for the exfil of the ground force, which was set up in a small pod near their helicopter landing zone, as always. Some things were slightly different on this night, though. First, the ground element had a single individual in custody, planning to hold him until they were out of the area. In the vicinity was a herd of sheep and the detainee's motorcycle. The ground element was also located in close proximity to the only hard structure anywhere near their HLZ.

My pilot in command and I had the entire picture in sight before the approach was initiated. To avoid over-flight of the ground element, we decided to maneuver the aircraft over the small hut. Recognizing this, I shallowed my approach angle to land forward of the structure. As I continued forward and our aircraft was enveloped in a dust cloud, my PC exerted downward pressure on the thrust control lever in an effort to get us to the ground.

It was at this point that it felt like our aft left landing gear made contact with the hut and rotated the front of the aircraft down and to the right. I was able to correct the attitude and continue forward to set down the aircraft safely. During this time, rotor wash sent the detainee's motorcycle through his flock of sheep. The ramp was lowered, and the ground force boarded, just like any other mission.

The remainder of the night continued just as planned. It was not until we returned to the forward operating base that one of the crewmembers noticed a large scrape on the aft portion of the left-side fuel cell and minor sheet metal damage on the ramp. After this discovery, it became apparent that it was not the landing gear that came into contact with the hut, but the body of the aircraft. Had it been the landing gear, there stands the possibility we would have been yet another statistic of a Chinook landing gear being left on an HLZ. There was ample coordination during the maneuver about heading, distance and altitude, but, besides mentioning it as a hazard, not much else was said about the hut.

Something as simple as a comment from me, stating my intentions to continue forward to avoid contact with the hut, or the PC stating he was coming onto the controls to get us to the ground, could have prevented the incident. The night could easily have turned into a catastrophe. Let's not forget to use all of our crew coordination fundamentals for every aspect of all flights.
RIDING THE BEAST

RETIRED AIR FORCE MASTER SGT. RICHARD SHIELDS
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It was the summer of 1980, and I was a young airman stationed at Mountain Home Air Force Base in southwestern Idaho. I'd recently been promoted to E-3 and decided to reward myself by purchasing a motorcycle. Of course, I wanted the biggest, fastest bike I could afford.

The salesman showed me a lot of motorcycles, but most were out of my price range. Then we came across a used Kawasaki 900cc with dual overhead cams. As I looked over the bike, the salesman was reciting its specifications, as they always do, but I wasn't paying much attention. Then he said the magic word: “fast.” I was sold.

I purchased the motorcycle, which I immediately dubbed “the Beast,” and told the salesman I'd be back the next day to pick it up. At the time, the state of Idaho didn't require any special license or training to operate a motorcycle. I can't be sure if the base required any special training either, but, regardless, I didn't have any. It wouldn't be long before I received the first indicator that riding without proper training was a bad idea.

The next day, I went to the motorcycle shop on my lunch break to pick up my new ride. I'd never been on a motorcycle this big and heavy before, so the 10-mile ride back to the base's jet engine test facility was a “crash course” in operating it. As I pulled up to the facility, everyone was outside cheering me on. Being young and dumb, I figured this was the perfect time to show them what this bike could do.

I gunned the throttle, not realizing the front wheel would come off the ground, causing me to do a wheelie. To my surprise, I controlled the Beast, but my heart was racing. I knew I had just performed a brainless move, and it wouldn't be my last.

After witnessing my recklessness, my supervisor pulled me aside and asked how long I had been riding a motorcycle. "Since lunchtime today," I told him. I still can see the look on his face as he uttered the words, “Stupid, stupid.” He then took a deep breath and told me I should park the bike because it would be the death of me. Today, I regard that as the best guidance he could have given me. Unfortunately, I turned a deaf ear to his advice. All I could hear was everyone cheering as I rode that wheelie and the words of the salesman: “fast.”

After a few weeks on the Beast, I was an experienced rider who could hang with the best of them — or so I thought. My confidence was high, which reflected in my efforts to look cool. I began riding without my leather jacket, using excuses like, "It's summertime. It's so much cooler without it." Soon after, I ditched my helmet and riding boots too. I was now on a collision course with destiny. Here's how it happened.

It was a sunny weekend day, and my girlfriend (who is now my wife) and I were invited to a barbecue. Although she pleaded with me not to ride the Beast, I insisted we take it. Reluctantly, she climbed onto the back and put on a helmet. At the barbecue, I had a beer, which infuriated my girlfriend. I told her I was only having one, but she called me a fool and asked me to take her home immediately, which I did. One might hope the story ended there, but, unfortunately, it doesn't.

I went back to the barbecue alone. When someone mentioned heading out to another party, I decided to go too and jumped on my bike. As I followed a friend's vehicle to the party, my mind wasn't focused on the road. I didn't notice his vehicle had stopped in front of me until it was too late and smashed the Beast into the rear bumper. I was thrown over the vehicle, coming down on my head and face 150 feet down the road. I can still picture the look on the face of the person sitting in the passenger seat as I flew past the car.

Miraculously, I survived the accident with little more than some scrapes and bruises. What hurt more than my injuries, though, was knowing I'd let down so many people. From my girlfriend to my commander and friends, I felt as if everyone who considered me a man of integrity now looked at me differently. I vowed this would be a turning point. I stand by that vow 33 years later and have since made safety a big part of my life.
Author's note: I have never openly shared the story of my accident. And while I tried to add a bit of humor to my experience, I hope the one thing you take away from it is that motorcycle riding is serious business. Over the years, I have seen countless deaths related to motorcycles; one was a close friend and too many others are the people nearest to my heart — service members. If you plan to ride a motorcycle, please ensure you have the proper training beforehand and always wear your personal protective equipment. Stay safe and live to tell your story of “Riding the Beast.”
In today’s fast-paced operating environment, workplace safety is an ever-growing concern for leaders. The benefits of maintaining a safe work environment — either garrison or tactical — are many. But ultimately, safety is about what we can do, as leaders, to protect our Soldiers.

Whether in a maintenance facility or repair shop, when safety considerations are overlooked, Soldiers become exposed to unnecessary risks. Safe working environments are morale boosters and conducive to increased productivity, efficiency and readiness. We must aim to eliminate potential accidents from our operations, thus increasing mission success and the safety of our Soldiers.

A force multiplier in an organization is a positive safety culture. This culture should promote safety and effectively influence Soldiers to carry it with them wherever they are and whatever they are doing. The key to culture change is engagement across all levels of command and among Soldiers themselves. A positive culture builds teamwork, reliability and effectiveness among personnel. Paying attention and addressing safety issues is part of a leader’s responsibility.

Safety training is another key element in the prevention of work-related injuries, illnesses and death. Training should be geared toward reducing loss of combat power and equipment during Army operations, thus conserving combat power. When properly trained on accident prevention procedures, Soldiers will understand the importance of workplace safety. They’ll know how to respond quickly in a dangerous situation. Ultimately, an effective training program can reduce the number of injuries and deaths, equipment damage, illnesses and missed time from work.

Effective communication of safety information is vital to an organization’s success. Policies, rules and procedures governing safety within an organization are the center of a safety culture. The overall effectiveness of a safety program is measured through personnel involvement, leadership engagement and supervision at all levels. Leaders must insist on adherence of established safety rules and standards, while continually evaluating their mission for innovative preventive measures that will enhance the unit’s safety readiness program. Organizations are required to comply with Department of Defense and Department of the Army policies, as well as Occupational Safety and Health Administration regulations since OSHA directs national compliance initiatives in occupational safety and health areas.

Leaders, it’s up to us to provide our Soldiers with a safe working environment. We owe it to them.

FYI
For tools and programs to assist in establishing and maintaining a safety program, visit the U.S. Army Combat Readiness/Safety Center’s website at https://safety.army.mil/. For OSHA training materials and regulatory requirements, visit http://www.osha.gov/ and check out our Workplace Safety page at https://safety.army.mil/soh/.
Pilots are creatures of habit. While deployed, I tried to do things the same way before every flight so I wouldn’t forget anything.

While deployed in RC-South in Afghanistan, I was attached to a task force of three Black Hawks and two Apaches to conduct operations for the special ops community. On a mission in May 2010, I arrived at the command post with my co-pilot. It was business as usual. The pilot in command reviewed the logbook while I went for a weather briefing. It was going to be a red illumination night, so zero percent illumination. Then, I received an S-3 update on friendly forces and an S-2 briefing on enemy forces.

We walked out to the aircraft, preflighted it, secured our gear and sat down with the other AH-64D team for a brief. Things were going well, and I was prepared for the mission. I had more than 150 hours flying with my PC and felt we understood each other in the cockpit for flight operations. It was at the point where I probably trusted the PC more then I should have. I had become complacent flying with him.

After the run-up and checks, we departed as an attack weapons team and linked up with two Black Hawks and escorted them into their landing zones. So far, everything was going well. I made contact with the SEAL team for a check-in. I told them we had about an hour and 45 minutes of station time before we needed to refuel. When it was time to refuel, we departed the area as an Air Weapons Team to a forward arming and refueling point.

We arrived at the FARP and landed with no issues. Usually, I would pull out the checklist, but not today. Once we landed, the PC pulled back the No. 2 engine as usual for hot refuel. I turned off the equipment, ended all radio transmissions, took off my helmet display unit and put on my goggles just to see how dark it was. It was very dark, and I noticed a chemical light adjacent to my window. It was a FARP Soldier waving for us to move over to the left so the grounding strap could be attached.

I told the PC we needed to move to the left. After I cleared him left and right, he pulled in power to move to the left. When we came off the ground, I heard the dreaded noise of a low rotor warning, and the PC drooped the collective. We hit the ground hard and the aircraft shook. I was blind at the time because I no longer had on the goggles and my HDU was pulled away from my face. We checked the systems page and found no overtorque messages and no issues to the aircraft, just two scared pilots. After telling the PC I was not going to talk for a minute or two, I placed my HDU back on my face and regained my composure.

After reviewing what had just happened, I realized our problem was caused by us not returning power to the No. 2 engine before attempting to move. I pulled out my checklist, like I should have done before the incident, and prepped for takeoff to link up with the ground force and extract them.

We talked as a crew after this incident and both realized we had become complacent. So, here are the lessons I learned that day:
Always use your checklist! If I had done a before-takeoff check, this would not have happened. There was no rush and we just reacted to the moment.
Always back up each other. The other crewmember, no matter how good he or she is, or their rank or job (instructor pilot or standardization instructor pilot), can make mistakes just as much as a new guy.
I hope this helps you. The valuable lesson I learned that day will always stay with me. The checklist has a purpose. Use it.
CORNERING CONTROL PART III:  
THE THROTTLE  
DAVID L. HOUGH  
www.soundrider.com

Editor’s note: In the April and May issues of Knowledge, author David L. Hough provided Parts I and II of his series about maintaining control of a motorcycle when riding in a curve. In this issue, Hough offers the third and final part of the installment, “The Throttle.”

When and how you roll on the throttle — or roll off the throttle — has a lot to do with cornering control. For instance, imagine leaning a 100-horsepower bike into a tight turn and then suddenly rolling on a big handful of throttle. The rear tire may already be close to the limits of traction, and a sudden increase in power would very likely slide the rear end out. That example makes it obvious that engine thrust can push the bike around.

In a corner, it would be best to maintain the weight distribution on the tires. Even if the bike is in a straight line, rolling on the throttle tends to shift weight onto the rear wheel. Rolling off the throttle shifts weight toward the front. That same front-rear weight shift occurs in a corner. To maintain traction, it would be best to maintain weight distribution while leaned over.

Let’s note that even if the tires don’t seem to be sliding sideways on the pavement during a curve, they are. In a curve, the flexible tire rubber allows the bike to move in a slightly different direction from where the wheels are pointed. It’s called drift — or more correctly, sideslip. Rolling on a bit more throttle tends to increase the slip angle of the rear wheel, pointing the bike more toward the curve.

Braking also affects sideslip. Imagine jamming on the rear brake while leaned over. It’s not difficult to imagine the rear tire sliding out, dropping the bike on its low side. Let’s note that rolling off the throttle is also rear-wheel braking, as engine compression tries to slow the rear wheel.

Tire Contact Rings  
As the bike leans over into a curve, the location of the tire contact rings moves off center. That means engine thrust or braking are off center. So, rolling on or off the throttle while leaned over will push or pull on one side of the rear tire, and that will have an affect on steering the bike.

Not only does a tire’s contact ring (contact patch) move off center as the bike leans over, the ring shrinks in diameter. Even if you’re attempting to hold a steady throttle, the bike will decelerate as it leans over onto the smaller-diameter contact rings. To maintain bike speed, you’ll need to roll on a bit more throttle as you lean the bike over. One of the advantages of wide, low-profile tires is less change in contact ring diameter, but the tradeoff is the ring moving farther out to the side as the bike leans over.

Put all of this together and you can see that throttle control affects steering, whether accelerating or decelerating. As it happens, throttle control and cornering lines can work together. If you’re following a nice delayed apex line, you can ease on the throttle as you turn the bike in and then gradually roll on more throttle through the rest of the curve. That’s much smoother than decelerating toward a mid-curve apex on a trailing throttle and then getting back on the throttle while leaned over.

The ideal throttle control would be decelerating toward the turn-in point while in a straight line, then easing on the throttle as you lean the bike over. You can continue to ease on more throttle in the last half of the curve, since the bike will be straightening up, and the side loads on the tires will be decreasing.

Throttle-Brake Transitions  
With the bike leaned over into a turn, maintaining traction is a top priority. And how you roll on or off the throttle can determine whether you keep the tires hooked up or they slide out.

Sudden changes in throttle momentarily demand traction. That is, if you were to suddenly roll the throttle open while leaned over, the rear tire would demand more traction as it attempts to accelerate the bike forward. It’s very possible to slide out the rear tire from overzealous roll-on.
Sudden braking input also demands traction. If you were to suddenly jam on the rear brake while leaned over into an aggressive curve, you should expect the rear tire to slide out. What may not be obvious is that suddenly snapping the throttle closed has an effect similar to stepping on the rear brake pedal. We must also remember that accelerating or braking both cause weight transfer between the two tires, and that changes the traction available on either tire.

To help maintain traction, both throttle input and braking should be as smooth as possible. When rolling on the throttle, it should be gradual. It’s just as important to roll off the throttle smoothly. Likewise, when braking, you should apply the brakes progressively over approximately two seconds. And when releasing the brakes, you should ease them off over two seconds.

You can practice smooth throttle and brake application in a straight-line exercise. At a speed of say, 40 mph, ease the throttle closed as you progressively squeeze on the front brake. Don’t clutch or shift down. As the bike decelerates to about 20 mph, ease off the brake as you smoothly roll back on the throttle. The goal is to transition from throttle to brakes and back to throttle so smoothly that the bike isn’t upset.

Controlling the throttle and brakes simultaneously requires some right hand dexterity. You’ll have to find a technique that works for you. Some riders prefer to hold the throttle with thumb and forefinger and brake with the three outer fingers. Others prefer to hold the throttle with thumb and outer two fingers, and brake with the two inner fingers. Which fingers you use for braking may depend upon the force needed at the lever on the bike you’re riding.

You can expect surface traction to change, even during a corner. A patch of sand or dribble of diesel oil will reduce traction, and you can feel a momentary slip of either or both tires. The typical (and wrong) survival reaction when a rider feels a tire slip sideways is to snap the throttle closed, but that can turn a short slide into a major crash. If the tire can regain traction, it will. It’s difficult to resist the urge to snap off the throttle, but it’s important to hold a steady throttle and steer toward the direction of the skid.

**Uphill, Downhill**

While the ideal technique for level turns is to gradually ease on more throttle from turn-in through the exit, uphill and downhill turns require different tactics. When approaching an uphill turn, especially a tight switchback, the front end will be lighter and therefore the front tire will have reduced traction. Rolling on the throttle during a tight uphill turn can cause the front tire to slide out. That’s especially likely when carrying a passenger or a heavy load of gear on the back of the bike.

When approaching a tight, uphill turn, maintain a slightly higher speed to allow inertia (momentum) to carry the bike up and around. Then smoothly ease on more throttle as you pull the bike upright.

When cornering downhill, you may need to brake to keep speed from increasing. Riding downhill, the front tire will be more heavily loaded, so you can use more front brake in downhill corners. If you’re using engine braking to hold speed, remember, engine braking only applies to the rear tire, which already has decreased traction due to the forward weight shift.

*Editor’s note: David L. Hough is a long-time motorcyclist and journalist. His work has appeared in numerous motorcycle publications, but he is best known for the monthly skills series “Proficient Motorcycling” in Motorcycle Consumer News, which has been honored by special awards from the Motorcycle Safety Foundation.*
There are many concerns for students starting the U.S. Army Survival Evasion Resistance Escape school — one of the main ones being the environmental stresses on the body. SERE-C training is both extremely challenging and rewarding for those who complete the course. One of those challenges for students is the heat at Fort Rucker, Ala. The area has a nine-month window (between March and November) of potentially excessive warm to extremely hot days (two to three weeks above 100 F), requiring constant hydration and water procurement by the students. After all, this is personal survival training in harsh environments.

The command team for the 21-day SERE course has constant oversight during each day of training. Throughout each phase of training and during seasonal changes, they consistently apply a risk mitigation plan through use of a composite risk management worksheet, DA Form 7566, and as outlined in Field Manual 5-19, Composite Risk Management. The entire SERE school team reviews the risk matrix for each class. To stay proficient, the medical staff trains annually on a series of first aid requirements. They also train extensively on the prevention of heat injuries and discuss any needed updates or changes that may need to be incorporated into the training to prevent them.

At SERE school, rescheduling or altering training is difficult because, by design and through the approval of the Joint Personnel Recovery Agency, the intensity of the training is maintained to purposefully stress the student, thus adding to the realism of being an isolated person in a combat and operational environment. Given the rigorous training, as well as the purposeful and environmental stresses, SERE school still achieves, on average, a graduation rate of 98 percent. This is no small feat for the students or staff.

The school maintains a comprehensive standard operating procedure to maintain the students' health and help prevent heat injuries. All risk mitigations occur simultaneously during the training, and the entire SERE team, government and contractor alike, has the ability and responsibility to monitor the students' health and help minimize heat injuries. The following procedures and actions are built into the approved SERE school risk mitigation plan that has 1st Aviation Brigade and U.S. Army Aviation Center of Excellence oversight. These actions can be used by other commands to help minimize heat injuries during training and combat. Develop, review and CASE (copy and steal everything) that can help with the implementation of a heat-injury risk mitigation plan. Here at SERE, the plan is reviewed prior to each class; it doesn't just sit on the shelf collecting dust. The plan is a living document that is constantly updated based upon new products, new scientific data and previous success or failure of heat mitigation solutions.

Command involvement with the medical staff is a must. Developing the procedures that are in place have allowed for improved preventive procedures and treatment, thus increasing graduation success.

The students undergo a stringent medical review before they start the course. The medical staff evaluates the students' overall health, specifically looking for individuals who've suffered previous heat-related injuries. The extreme heat poses a greater risk to these individuals, as they're more susceptible to heat injuries. However, having a previous heat injury doesn't prevent a student from attending the course. These students are identified with a red tab that’s worn as part of their uniform. This technique doesn't single them out; rather, it helps the staff readily identify the student during intense training and increased heat, hopefully preventing another injury. All students are expected to stay adequately hydrated regardless their pre-disposition to heat injuries. With training and education about the symptoms of dehydration, as well as how to procure and purify their water, the students’ goal is to stay adequately hydrated, survive and return with honor.

The SERE school medical staff is available 24/7 during all training. One of their top priorities is to identify students that may become a heat casualty. Students are consistently reminded to stay hydrated, and a urine color chart is used to help monitor their levels of hydration. The medical staff also maintains a log to monitor when each student has urinated. This technique further helps determine levels of hydration per individual. Information gleaned from the logs determines how much water the students should drink based on the temperature and the individual's hydration level. The medics have the skills to treat dehydration and rehydrate the student and safely return them to training.
Normally, the day of a heat injury or dehydration is not the day that caused the issues. Heat injuries are cumulative and decreased hydration or decreased electrolytes in the days leading up to the event are most often the culprit. To help mitigate the risk of succumbing to the heat, students are urged to drink and eat properly and increase their salt (sodium chloride) intake. SERE school instructors limit the students’ caffeine intake to help prevent the side effects as a diuretic. When repeatedly exposed to higher temperatures, students sweat excessively, and the staff can add oral rehydration salts to their water sources.

A wet bulb globe temperature device is also constantly monitored during all phases of training and, using TB Med 507, Heat Stress Control and Heat Casualty Management, the allowable and appropriate adjustments to training are applied. The recommended fluid replacement guidelines for warm weather training are in effect and monitored throughout training. Training doesn’t stop because of the rising temperatures.

During field training, students stay in constant communication with an operational controller. Students report their health status and water quantities. If water availability during a drought is not available based on the field topography, water sources are provided to ensure the students have adequate hydration.

Acclimatization is extremely important. Flight students at Fort Rucker come from a predominately academic setting before starting the course. Most students haven’t been out in the hot weather to the extent needed for the challenges they’ll encounter during the course. Students coming from a more northern climate just days before the course definitely have not experienced the heat of lower Alabama. To acclimate, these students need to gradually expose themselves to the heat and increase their exercise workloads during the hotter times of the day. Acclimatization should happen at least a month before training. The more exposure ahead of time, the better.

The medical team continually works with other Department of Defense SERE schools. They attend meetings to discuss the intense training and exchange ideas and SOPs in effort to minimize medical injuries during training.

Based on its location and reputation for hot weather, the SERE school at Fort Rucker poses the highest risk of heat injury for students, compared to the other DoD SERE training locations. All of the above-mentioned procedures, best practices and attention to the health of the students have been instrumental in assisting the SERE command team safely graduate more than 2,200 students annually. Be part of that success. Prepare yourself for “The Heat of SERE!”
ACCIDENT BRIEFS

ROTARY-WING

CH-47F
Class A
A Soldier died when the aircraft rotor wash toppled a barrier gate, pinning him underneath.

OH-58D(R)
Class A
The pilot in command died when the aircraft crashed during a training flight, reportedly while the crew was executing a precautionary landing. The aircraft was destroyed in the crash.

UH-60L
Class A
The aircraft crashed during a training flight.

GROUND

ACV
Class A
A Soldier died after he was run over by an M3A3 Bradley Combat Fighting Vehicle. The Soldier had dismounted the vehicle to establish an observation point when the accident occurred.

Class B
Four Soldiers were injured when their Mine Resistant Ambush Protected vehicle overturned. The MRAP was in a security patrol when the driver apparently lost control. The injuries were a result of loose items inside the vehicle.

AMV
Class B
Six Soldiers were injured when the Heavy Equipment Transporter vehicle (with trailer) they were riding in overturned. The vehicle was in a movement convoy when the driver lost control while negotiating a turn.

PERSONNEL INJURY

Class A
A Soldier was killed at his residence when he was mistaken for an intruder and shot by a Family member.

Class B
A Soldier was injured when he was struck by a round from his privately owned weapon. The Soldier was carrying the loaded weapon when he tripped. A round discharged, struck him in the forearm and then lodged in his knee.

A Department of the Army Civilian was injured when his finger became caught on the metal tarp loop of a semi-trailer. The DAC was closing a tarp on the trailer when he slipped, catching his wedding ring on the loop. Part of his ring finger was amputated.

PMV-4
Class A
A Soldier died when his vehicle left the road, struck a tree and overturned.

A Soldier was killed when his vehicle was struck by a commercial truck that ran a traffic light.
Two Soldiers died when the driver lost control of the vehicle at a high rate of speed and struck an oncoming vehicle.

A Soldier was killed when he lost control of his speeding vehicle, striking a utility pole and then a tree. The highway patrol reported the Soldier was not wearing a seat belt.

A Soldier and his wife and child were critically injured when their vehicle contacted ice in the road and slid into oncoming traffic, resulting in a head-on collision. All three were wearing seat belts.

ATV
Class A
A Soldier died when his all-terrain vehicle overturned, causing him to strike his head on the pavement.

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 usarmy.rucker.hqda-secarmy.list.safe-knowledge@mail.mil.
FROM THE DASAF
RISK: A COMMON DENOMINATOR

Anyone who has ever had a college philosophy class is familiar with the question, “If a tree falls in a forest and no one is around to hear it, does it make a sound?” Multiple interpretations of the answer have been given by great minds through the years, but one simple premise is this: The lion’s share of human perception is made up of only what we actually observe. Trees fall in the forest all the time, but it’s not an “event” unless someone is there to see or hear it.

Unfortunately, that’s the way a lot of people — leaders and Soldiers included — think about risky behavior. If they don’t see it right in front of them, it must not be happening. With the most indisciplined Soldiers, there generally are some indicators of risk in their performance on duty. Reaching them isn’t necessarily easy, but leaders are at least aware of the problem and can address it. They make the noise, so to speak, and therefore get needed attention.

However, those Soldiers who don’t fall into the traditional indisciplined category but still take occasional risks are the unheard trees in the forest. If a Soldier executes every mission to standard on duty but dies in a preventable accident after hours, his or her leaders might understandably be shocked. Since they’d never seen the Soldier make an infraction, they assumed risky behavior wasn’t an issue.

I started thinking about this during a distracted driving event the USACR/Safety Center recently sponsored at Fort Rucker. Soldier and civilian volunteers rotated through a controlled course where they encountered unexpected obstacles while driving with some distraction, ranging from talking on their cellphones to switching a CD to dealing with loud passengers inside the vehicle. Most were surprised at just how much a simple distraction affects their reaction time, a realization that often doesn’t come about until an accident or near miss occurs. Fortunately, our participants learned that lesson traveling at 10 and 15 mph, a much more forgiving situation than real life allows.

This exercise clearly showed commonplace, well-ingrained behaviors are indeed risky — and the scary thing is we all needlessly accept that risk from time to time. Who hasn’t checked their phone when a message alert comes through? Even if you don’t reply, you’re still distracted by reading the message. Have you visited a drive-through for a quick meal on a long road trip, eating while making ground? If we’re doing it, you know your Soldiers are as well, even the best and brightest in your ranks.

Risk is pervasive, and we’ll never completely eliminate it from our everyday lives. We can manage it, however, and teach our Soldiers to make smart risk decisions. Accidents sometimes happen that are out of our control, but no one has to be a casualty of personal negligence. Training, discipline and standards will serve us and our Soldiers well if we follow through and ensure they do too, particularly when no one is looking.

Thank you all for what you do every day, and I wish each of you a safe and happy Independence Day. Every birthday America celebrates is a tribute to our men and women in uniform and those working behind the scenes to keep them safe. Please let me know how I can help in your endeavors, and be sure to check https://safety.army.mil regularly for the latest safety information and risk management tools. A distracted driving awareness package, “So you think you can drive … distracted?,” based on the Fort Rucker event, was just added to the site and contains materials to help you start the conversation with your Soldiers.

Today and every day … stay safe and think smart!

Army Safe is Army Strong!

TIMOTHY J. EDENS
Brigadier General, USA
Director of Army Safety
WATER WISE
ALLEN MOORE
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U.S. Army Garrison Fort Hunter Liggett, Calif.

One beautiful morning, my family joined some friends for a boat ride on Lake Nacimiento on the central coast of California. The water was cold, so we had no plans to go swimming. We just wanted to spend some time on the beautiful lake.

My wife, father and I arrived at the lake about 8 a.m. and met two of our friends at the launch ramp. We put the boat in the water and loaded up with no issues. I noticed there wasn’t a single personal flotation device in sight, but didn’t mention it. Little did I know that my silence would almost lead to tragedy.

As we got out on the water, there were only two other boats on the lake. We cruised around at a nice, leisurely pace, enjoying the scenery and fresh air. As we entered an area the locals call the “narrows,” one of our friends handed out beers. Everyone accepted, including my father, who was 68 years old at the time.

After a couple of beers, nature called, so we decided to make a pit stop. The only way off the boat was to walk along the rail to the bow (front). I was the first one off, and one of my friends followed. As we relieved ourselves, my father decided he needed to get off the boat too. My wife and our other friend were in the cabin preparing snacks and didn’t realize my father was attempting to get off the boat.

As my father got onto the rail, he lost his balance and fell into the water. My wife heard the splash and came running out of the cabin. Initially, she didn’t see anything, but as she looked around the boat, she saw my father underwater, looking up at her! She jumped in and brought him to the surface. My friend and I rushed back and helped them out of the water. They were both blue from the frigid water, so we warmed them up with blankets and put a sweatshirt on my father. We decided we’d better cut the trip short and head home for some dry clothes and hot coffee.

The ride back to the launch ramp was quiet as everyone reflected on what had just happened. My wife broke the silence by asking my father why he didn’t swim to shore. His answer surprised us all. He said, “I didn’t swim to shore because I don’t know how to swim.” The boat went silent again. I never knew my father couldn’t swim.

My father had lived with us for the past 10 years because of health issues. He was very thin, but his lung cancer was in remission. He was happy and feeling good at this time in his life. I often reflect on how I almost lost him and my wife that fateful day.

My father finally succumbed to lung cancer at the age of 79. I hate to think what those final 11 years would have been like without him or my wife in my life. What might have happened if my father had panicked? If we hadn’t been drinking, this close call probably would’ve never happened.

Please don’t find yourself in a similar situation. It was bad enough we’d been drinking, but not wearing a PFD was inexcusable. For the safety of everyone on the boat, leave the alcohol on the shore and ensure PFDs of the proper classification are available for each passenger. Know who can and can’t swim, and don’t allow anyone on the boat who’s not willing to abide by the rules. By being water wise, you can help prevent a fun day on the lake from ending in disaster.

FYI
According to the U.S. Coast Guard, in 2011, 533 of the 758 boating fatalities resulted from drowning, with 84 percent of the victims reported as not wearing a life jacket. The USCG urges recreational boaters to make sure everyone on board wears a life jacket at all times on the water. To learn more about boating safety, visit http://www.uscgboating.org/.

“Lost on the Lake” is a public service announcement from the USCG that shares a family’s heartache as they mourn the loss of loved ones who were boating and not wearing life jackets. To view or download the video, visit https://safety.army.mil/multimedia/VIDEOLIBRARY/VideoPlayer/TabId/421/Videoid/674/Lost-On-The-Lake.aspx.
BLINK OF AN EYE
CHIEF WARRANT OFFICER 4 MARK PARR
Driving Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

In a blink of an eye, the motorcycle was on its side and I was hitting the pavement. There was no life flashing before my eyes and no chance to recover, but there was pain in my left knee and elbow. One second I'm on the bike and the next I'm on the ground next to it. A little shaken and quite embarrassed, I sat there for a minute rattling my brain, trying to think what I could have done wrong. The Motorcycle Safety Foundation RiderCoach then walked over and asked, “What happened?” I honestly had no idea.

This accident, while real, occurred during the two-day MSF Basic RiderCourse, which is required by the Army for all Soldiers who want to ride a motorcycle. It's a controlled environment where novice and experienced Soldier riders must go before riding a motorcycle. The course is part of the Progressive Motorcycle Program and is designed to teach the basic skills of riding, as well as ensure you understand the inherent risks associated with a motorcycle.

This was a beta test version of a program currently being developed by the MSF in conjunction with the Army. It starts with an online course designed to introduce inexperienced riders to the basics, including the different types of motorcycles on the road, the location of controls, proper riding gear and how to handle the bike under various road and traffic conditions.

Passing the online segment almost dissuaded me from taking the hands-on portion. Realizing the amount of focus needed to control the bike safely was a little intimidating. Throttle with the right hand, clutch with the left hand, brake with the right foot and hand, and shift gears with the left foot. Oh, and don't forget lane position, braking distance, turn set-up and the fact that you never know if the driver of the car next to you is aware you're there!

However, I made it through the course and felt I was ready to learn how to ride. I didn’t have any plans of buying a bike just yet, but I wanted to see what all was involved. I arrived at the class and after about 10 minutes of introductions to the course and a quick review of what we had learned in the online portion, it was time to get on the bike. A little surprised at how quickly we were tackling the bikes, I realized this was the hands-on portion of the course, so I grabbed a helmet and gloves and headed out to the range.

After the rest of the students and I each found a motorcycle that fit us well, we went over some basics of the bike, such as location of the ignition switch, fuel switch, clutch, gearshift and brakes. As the class progressed, I began to feel a few butterflies in my stomach and realized we were going to be riding very soon.

As the trainers, who are referred to as RiderCoaches, talked us through the exercise we were about to perform, the nervousness changed to excitement. When I turned the key and flipped the switch for the ignition and the bike roared to life, I began to understand why so many bikers enjoy riding. Unlike a car, where the engine is in front of you, a rider practically sits on the engine of a motorcycle, and that rumble translates into power. The thought that I could control that power and make it do what I wanted further fueled my excitement.

The first few exercises were simple, designed for the rider to understand the relationship between the clutch and the engine. We “power walked” our bikes, making sure to never fully engage the gear but learned where the “friction zone” was on the clutch. The friction zone is that magical place where the gear engages and the bike begins to move forward under power from the throttle. We were also instructed that if the bike feels like it is getting out of control, squeeze the clutch. This will disengage the power to the rear wheel and begin to slow you down. So, I kept thinking, “Clutch equals no power.” But what about the brakes? Won’t they stop me?

After 25 years of driving various sizes of cars and trucks with manual and automatic transmissions, I feel comfortable with braking. However, when you brake on a motorcycle, you have to remember there is a front brake and back brake, just like most bicycles nowadays. The two should be worked together to brake in the safest manner. Applying just one can be dangerous … I repeat, d-a-n-g-e-r-o-u-s.
After several exercises and a few hours, we were ready for our first opportunity to change gears while riding. This entailed driving down the long side of the course, changing gears and then slowing slightly to make the turn into the short side of the course, then making another turn to the opposite long side of the course, changing gears again, and then slowing into the second short end of the course. Basically, we were doing laps. I started out well enough, accelerating and changing gears. I approached the turn, backed off the throttle and then looked ahead in the turn to where I wanted to go, just as I was taught. I continued to do this for a few laps and realized I wanted to go a little faster and work on changing gears a little more. As I came out of the turn for the long, straight stretch, I rolled on the throttle, picked up speed, changed gears and accelerated a little more. That's when it happened.

I realized the extra speed had carried me to my destination — the next turn — a little too quickly, and I hadn't downshifted yet. I wasn't going to make the turn at my current speed. So, did I grab the clutch and remove power from my rear wheel like I was taught? Nope. Did I ease in on the front and rear brakes at the same time to control my speed and slow down gradually but with control like I had learned? Nope. I did exactly what I would have done in that situation if I were in a car — I hit the brake. In fact, I grabbed the front brake and only the front brake. I grabbed it hard too. When I did, the power in the back wheel kept pushing while the front wheel stopped. I ended up on the ground with the bike beside me, my shirt and pants torn and my elbow and knee hurting. Yeah, I was only going between 10 and 15 mph, but I still ended up with road rash on my elbow and knee.

The RiderCoach came over and asked how I was and if I knew what happened. When I told him I wasn't sure, his experience and observation pinpointed exactly what I had done wrong. I took a breather and began to analyze what had happened. As Soldiers, it's instinctive for us to perform a quick after-action review to learn how we can do things better in the future. I concluded motorcycle riding was not for me.

Later, I thought about what I had experienced. First, my injuries — road rash from going just 10 to 15 mph. I never imagined. Yes, it hurts. I now know why the Army requires Soldiers to follow ATGATT — All the Gear, All the Time. Helmets, gloves, eye protection, sturdy over-the-ankle footwear, long-sleeved shirts and pants will help with surviving the crash. However, your goal should be to do more than survive. You should want to walk away from a crash thinking the gear saved you from any injuries. Invest in riding jackets and pants made to save your skin … literally.

Then I thought about training. What if this course didn’t exist and one of my buddies had convinced me to ride his bike? I could have ended up dead or seriously injured. The Army leadership provides the course free of charge to all Soldiers. This is why the course is required. Get the training before you start riding. Find out if you really want to ride before you invest thousands of dollars into a bike and equipment. It could also save you on medical expenses.

Finally, if you take the course and decide riding is for you, make sure you go back and take follow-up courses through the Progressive Motorcycle Program. You will learn more about riding safely and maybe even be reminded of some things you forgot from the basic course. Learning these lessons on the road in real traffic can lead to an epic failure. Don't want to take my advice? Don't worry; it will all be over in a blink of an eye.

**Did You Know?**
The Motorcycle Safety Foundation recently updated its introductory training course — the Basic RiderCourse — with new classroom content focused on rider behavior, risk awareness and risk management. Field testing of the new program has been conducted at a West Virginia Army National Guard facility and Fort Rucker. The MSF hopes to release the course nationwide this summer.
TRUST YOUR SYSTEMS
NAME WITHHELD BY REQUEST

When I arrived in Iraq, I was a new pilot out of flight school, chomping at the bit to contribute to the mission. After a week or so of right-seat rides, our unit was in full swing, supporting troop transport missions with our UH-60As. My second mission in country was to execute a six-hour mission in and around Baghdad. The temperature was typical for August, about 110-115 F.

My pilot in command and I ground taxied on alpha taxiway and prepared our health indicator test. After the HIT, we lifted to a 10-foot hover and noted our hover power. Everything was normal, and we set up to the northwest with clearance for a direct right turn out to cross the runway.

As we started our right-hand turn, I noted we were immediately in the midrange of our 30-minute turbine gas temperature limit. I thought it was unusual since we weren’t heavy but attributed it to the hot climate and lack of experience of flying in country. The TGT eventually fell to a more acceptable range, dropping in and out of the 30-minute limit as we climbed to our cruise altitude even though we were 10 knots slower than originally planned.

When we arrived in Baghdad, we were calculating our TGT issue. As we transitioned across Baghdad International Airport, we were required to hold short of the runway. We noticed we were now hovering in the middle of our 30-minute TGT range, even though our torque was exactly what our performance planning card had predicted.

Our trail aircraft had a maintenance test pilot, so we explained our issue as we cross-checked the central display unit and pilot’s display unit. He left the decision up to us as to whether we could continue to fly, so we chose to go on with the mission. We arrived at the forward arming and refueling point and took on a full load of gas. The FARP was adjacent to the runway with two fuel trucks directly in front of it.

As we climbed cautiously out of the FARP, we immediately started to lose rotor RPM. We were committed since we were directly over the fuel trucks, but it was at this point we received a low rotor RPM audio. The PC nosed the aircraft over to try to get some airspeed and quickly we got our RPM back to 100 percent, but we were barely complying with our hold-short-of-the-runway instructions. We ground taxied into the parking area, shut down and opened the engine cowlings to see if anything unusual was contributing to our TGT issue. We didn’t see anything obvious, so we decided to continue on with our mission, even though we now knew we had an issue with our TGT being high enough that we were getting into TGT limiting, thereby reducing our power margin.

For the rest of the day, we continued gingerly managing our TGT, taking very low takeoff angles to keep up our rotor RPM. As we would get to straight-and-level flight, the TGT would fall back into the lower end of the 30-minute limit. In one landing zone, we even made a modified roll-on landing and then repositioned to the pad that would give us the best chance for a rolling takeoff, all the while carefully bringing in power to clear obstacles. Upon returning to home station, we found something on the postflight that was the contributor to our TGT issues. The bleed air hose that fed the No. 1 engine had managed to separate from the engine.

I learned a number of things that day. First, trust your systems knowledge. We knew the whole day that our indications were not normal, yet we decided to continue. We didn’t want to be the guys to impede a mission because we couldn’t handle an “irregularity.” Second, even though we were new to country, we learned that a power margin that small was not normal given the weights all day. Third, and most importantly, we were lucky not to get into a serious situation based on our aircraft performance. It could have been catastrophic if we had to use an evasive maneuver or more power than we needed for basic approaches and takeoffs. That day taught me that your system knowledge, along with applying good decision-making, will help you and your crew arrive safely.
FORMULA FOR DISASTER

MAJ. JOHN STRAIN II
Georgia Army National Guard
Atlanta, Ga.

Of the lessons learned during our brigade's yearlong rotation in support of Operation Iraqi Freedom III, none have returned to me more than the words “complacency kills.” That warning was emblazoned on a T-barrier in the center of Forward Operating Base Saint Michael as a daily caveat to our greatest planning measures, pre-combat checks and pre-combat inspections.

The complacency kills sign served as a somber reminder of those Soldiers who'd been seriously injured and killed as a result of an accident or combat. The message was a warning to wake up and follow our standard operating procedures. Regardless of the losses, however, the warnings became increasingly faint until the next week, when the lesson was applied once again.

Overconfidence was more predictable. Its presence was marked by the rotation of every new unit that showed up. An air of superiority exuded from officers and noncommissioned officers that they were above the situation and would set a new standard without adherence to lessons learned by the unit they replaced. This overconfidence was met by an enemy that changed its tactics, techniques and procedures more often than we did, as if they read our playbook prior to every period.

Unfortunately, complacency and overconfidence are even more prevalent at home than in theater. We see it in the number of off-duty accidents, as compared to those at work, as well as in under-reporting. Both are signs of a complacent and overconfident Soldier. We are paying a high cost in injuries, quality of life and senseless deaths due to our inability to apply combat lessons to the home front.

Several years ago as a leader in a chemical, biological, radiological and nuclear unit, I received a call from two team members. They were frantic after being exposed to a live agent while working in a confined area. Without personal protective equipment, both were concerned about the immediate and long-term effects of this lethal substance. They were evaluated, treated and released, as there was no immediate effect. The tragedy lies in the fact that there was never an accident report on this incident. It was stifled at the command level due to fear of the repercussions. No evaluation was made to identify the complacent measures and overconfident attitude that allowed loose bottles of the substance to remain unsecured or permitted Soldiers to work in a confined and unventilated area without the required personal protective equipment. No reporting, no lessons learned and no improvements made.

I'm a firm believer that the only way for us to conduct operations in an acceptable risk environment is when Soldiers properly perform PCCs, leaders thoroughly conduct PCIs and commands report and investigate even the most benign violation of safety standards. "It can't happen to me," "We are special," and, "We don't need PPE," are the same fallacies that are killing our Soldiers off and on duty. "Stay alert, stay alive" could not be more applicable than today. Soldiers are human, and we make mistakes. If we don't learn from these mistakes, we will pay with our life and the lives of our comrades.

FYI

The USACR/Safety Center has a reference guide intended to assist safety professionals in advising their commands in preparing and maintaining accident prevention programs before, during and after deployment. The Deployment Guide for Brigade Combat Team Safety Professionals covers a myriad of common hazards, potential controls, TTPs and lessons learned for topics such as base operations, ammunition and explosives storage and handling, vehicle and convoy operations and weapons handling. The guide also offers links to briefings, checklists, sample standard operating procedures and risk management worksheets, relevant publications, posters, videos, websites and toolboxes. Much of the content comes from previously deployed safety professionals. Check it out today by visiting https://safety.army.mil/deploymentguide (AKO login required).
A NEW PERSPECTIVE
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Just about everybody has seen accident videos that warn, “It could happen to you.” Fortunately, most folks haven’t experienced the loss of a friend or loved one to an automobile accident. I wish I were one of them.

A single event shaped my habits for the rest of my life and gave me a perspective and appreciation I didn’t have prior. At the time, it seemed insignificant. The next day, however, after I heard all the details and had time to reflect, it had a huge impact on me.

As I rushed into the emergency room with my pregnant wife, who was having some serious contractions, I ran into a friend I hadn’t seen in about four months. He was sitting in a wheelchair. I quickly asked if he was OK as we hurried by. He told me he’d been in a car accident, but didn’t elaborate. Rather, he just gave a small smile and congratulated me on the upcoming birth of my child. I was totally consumed with the events surrounding me, and shortly thereafter, was once again the father of a little girl. At that point, I didn’t realize that as I celebrated this new addition to our brood, my friend’s family had just been taken away.

His name is Adai (pronounced ah-day), and he was from Haiti. We’d been friends for more than a year. He was working hard to become a U.S. citizen, and joining the Navy was his path to citizenship. He was a proud father and husband.

When I met him, Adai’s family was still living in Haiti, but every dollar he earned went to them or to savings to help get them to America. He’d started as a deckhand, but what he really wanted to be was a Navy corpsman (medic). He befriended the ship’s corpsman and would volunteer to help him in his spare time. Months later, after hundreds of hours volunteering, Adai put in paperwork, with a recommendation from the ship’s corpsman, to change his job classification. Two or three months later, he was approved to attend school to become a corpsman.

Everything for this hardworking man in his mid-20s was finally lining up. While in school, he received permission for his family to move to the U.S. He also took his citizenship test and became a citizen. He was fulfilling his dream and it seemed as if nothing could stop him.

Immediately after graduating from corpsman school, Adai, his seven-months-pregnant wife and 7-year-old daughter got into their vehicle for the 14-hour drive home. Adai preferred to drive after dark when there was less traffic on the road, and they traveled eight hours through the night before checking in at a hotel. The next night, they resumed their trip. Unfortunately, about an hour away from their destination, a car crossed the median and struck them head on. In an instant, a drunk driver took the lives of Adai’s daughter, his wife of almost nine years and their unborn child.

To this day, I think about that moment I saw Adai in the hospital. I, consumed with happiness over the impending birth of my daughter, never considered what was going on in the lives of the people around me. Then there was Adai, who was struggling with the loss of his family. He had to have been full of questions. “Why did this happen to me? What will I do?” Still, through all of that, he forced a smile and congratulated me on my moment of happiness.

Adai deserved so much more, but a bad decision by a man on his way home from a bar changed everything. This accident was completely preventable. That driver should never have been on the road.

More than 15 years later, I find myself still asking questions. I, too, wonder why this happened to Adai. I also wondered why the drunk driver lived but my friend’s family died. Sadly, I know Adai will never get the answers to those questions.

That day in the emergency room changed my life. I soon began training on the hazards of drinking and driving. I stopped being an enabler and started offering to be a designated driver. No one should have to lose a friend or loved one to a preventable accident. Take care of them and help them take care of others.
While stationed in Germany, I received a call from a platoon sergeant who needed my help. A platoon leader at the motor pool needed assistance conducting aircraft fire suppression classes for Soldiers who refuel and rearm helicopters. I researched the planned classes and found the data surprising. It indicated that fires may engulf helicopter crews in anywhere from 18 seconds to two minutes. Needless to say, after this training, I had a new appreciation for the danger fire presents to aviators.

The platoon leader integrated the fire department that handles crash and rescue service at our airfield so they could help with emergency egress training for downed aviators. They were also able to gather fire extinguishers that needed to be discharged, and the fire crew had an aircraft that was used for aviator egress training.

After coordinating with the airfield manager and putting in a notice to airmen since our section of the taxiway was to be closed for the training, we arranged for an AH-64D to be part of the training. We gathered and tested radios to ensure we could talk with the tower and sufficient personal protective equipment was collected. Some junior aviators were called out of the office to participate in full flight gear as casualties. Inside our briefing theater, the troops were given classes on fire safety, fire extinguishers and aircraft familiarization. Combat lifesaver refresher classes were also given on how to evaluate a casualty and provide immediate care.

The Soldiers were moved out to the flightline for the rest of the training. The groups were split, and each smaller group went through a training scenario. All training started in the crawl stages, and aviators showed each Soldier the danger areas on a combat-loaded helicopter. They were also shown egress points on the helicopter and how to get the pilots out if those points were blocked. Small groups of Soldiers were then given the opportunity to pull out a real pilot from the helicopter. Eventually, the groups turned it into a game to see who could get the pilots out the quickest. The fire department also gave hands-on familiarization of the fire extinguishers and demonstrated how to discharge one.

After everybody was trained at the base level, the fun started. Each Soldier donned PPE, and the fire department ignited JP8 fuel. With dummies in the “burning” trainer, the emergency response plan was initiated. The tower called the fire department, medics, military police and chain of command. The fire truck came screaming down the flightline and put out the fire with a truck-mounted cannon as the firefighters rescued the dummy aviators from the aircraft. Then, they performed immediate combat lifesaving measures on the victims and removed them on stretchers. After the firefighters were finished, the rest of the time was spent training the groups on how to do the same thing.

The pre-accident plan was tested, and aviators were able to teach and learn from the Soldiers. The Soldiers who refuel and rearm our aircraft appreciated that aviators cared enough to meet and train with them, instead of only seeing them when they needed fuel. The fire department was able to conduct training with real aircraft, and it was all done safely.

It’s good to know we have personnel trained for emergencies. Hopefully, though, we won’t ever need to use that training.
BEAT THE HEAT

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Summer is a beautiful time of year; however, we should always be aware of the associated dangers lurking around the corner.

Heat exhaustion, heat cramps and heat rash are serious conditions and are the body's way of signaling you are overheating. The human brain actually begins to die when the body's core temperature is not kept at equilibrium. Every year, thousands of people die from heat-related illnesses/injuries. But here's what astonishes me: Almost all heat illnesses/injuries are preventable. Folks just need to prepare for the elements and do thorough prior planning before engaging in activities in hot weather.

Heat exhaustion is a heat-related illness/injury that most often develops after several days of exposure to high temperatures and inadequate or unbalanced fluid replacement. Those most prone to heat exhaustion are the elderly, people with high blood pressure and individuals working or exercising in a hot environment.

Heat exhaustion symptoms include heavy sweating, pale skin, muscle cramps, weakness, dizziness, nausea or vomiting and fainting. When someone is suffering from heat exhaustion, the skin often will be cool and moist or clammy. A high pulse rate and fast, shallow breathing are also cues. In extreme cases, the skin will be warm and dry. When this happens, the individual is at risk for heat stroke.

Staying hydrated is the most important thing a person can do to avoid the dangers of the sweltering summer sun. Both in Alabama, where it is humid, and Arizona, where it is dry, hot air and the sun will suck moisture right from your body. The skin is the body's largest organ, and it's in the most danger from the sun's powerful rays. Sunscreen will protect your skin from the damaging ultraviolet exposures, and sunglasses will protect your vision.

Do not take the summer lightly. It is important that during these nice, sunny days you remember how easy it is to become dehydrated. If you are thirsty, get something to drink. Don't forget to protect yourself from the heat, and always prepare before setting out for a day outdoors.

Know the Signs
The U.S. Army Combat Readiness/Safety Center’s summer safety campaign is in full swing through Sept. 3. Have you seen the resources designed to compliment your organization's campaign? Check out this article about keeping cool in hot weather, https://safety.army.mil/LinkClick.aspx?fileticket=BHLgyRvn_YE%3d&tabid=2409.
SHADE-TREE MECHANIC
COMPILED BY THE KNOWLEDGE STAFF

For one reason or another, most of us have probably been a “shade-tree” mechanic at some point in our lives. For me, the first time was my during my freshman year in college, when the water pump failed on my 1958 Chevy. With limited funds, I had no choice but to dive in with nothing more than a friend’s advice and a set of cheap flea market tools.

Over the past 23 years, I have acquired a three-car garage, two rolling toolboxes and a nurse for a wife — all to support my mechanical habit. When I look back at all the cars I’ve gone through, I realize each one not only taught me about mechanics, but also a valuable safety lesson. Yes, there have been plenty of accidents, with the common thread being that I identified the hazard but ignored it instead of taking a different approach or putting appropriate control measures in place.

The first safety lesson I learned the “hard way” was one we’ve all heard a million times — use the right tool for the job. My faithful ’58 Chevy had a worn-out and tired front end, so I decided to tear it down and do a complete rebuild. I knew the front coil springs were under a lot of pressure and that there was a tool used to compress them for safe removal. Instead of using that tool, I decided to use a bottle jack under the control arm to release the pressure slowly. I knew this was the wrong way to do the job and that I was taking a chance, but I went through with it anyway.

Sure enough, as soon as I loosened the last bolt from the control arm, the pressure caused the jack to shift. The compressed spring then flew out, hit me in the chest and knocked me back about three feet. As I lay there on the ground looking at the impressions the spring left on my chest, I said to myself, “You knew that was going to happen.” Nowadays, no one has an excuse not to use the right tool for the job. In fact, most of the major auto parts chains have a free loaner program that covers just about any tool you would need to do a job right.

Over the years, I’ve also suffered countless eye injuries because of my hobby. The one thing they all had in common was right before the injury occurred, the thought went through my mind that I should be wearing safety glasses. Of course, that did little to prevent the piece of metal from flying off the back of the Honda Civic I was grinding on and going straight into my eye. That mishap ended with a trip to the emergency room, where the doctor numbed my eye so he could remove the metal.

I’m embarrassed to say that this encounter happened after several other incidents where some type of foreign substance ended up in my eye, including brake fluid, carburetor cleaner and just about anything else that can be sprayed. Fortunately for me, my wife has come to expect the occasional mishap and knows exactly what to do when I come running in the house with one eye covered. Somehow, though, I’m always surprised when it happens.

Not surprisingly, there have been numerous other close calls, including a vehicle without wheels falling onto the ground, the loss of two wheels on two separate vehicles while driving down the road and, most recently, a differential from a minivan falling onto my head. All of these incidents had three things in common: I identified the hazard, ignored it and serious consequences could have occurred but, thankfully, didn’t.

As an Army, we do a good job of being safety conscience in our motor pools. But we must remember to bring those safe practices to our home shops as well. Whether the accident happens at home or the motor pool, the consequence is the same — the loss of a Soldier.
Compared to many other safety directors/managers/officers, I have not “officially” been in the business very long. But I have learned a few things over the years.

After being medically grounded in August 1999, I put in a request to attend the Aviation Safety Officer course. That request was granted, and after being in the standardization realm throughout my aviation career, I soon found myself a chief warrant officer 5 fresh out of the ASO course going to a division safety office. I say I haven’t officially been in the safety business very long because I always felt that bad things could happen to me, so I took measures to reduce the chance they would. If you got onboard my aircraft and wanted a yank-and-bank fun ride, you were out of luck.

An aviator doesn’t fly for 20 years without experiencing close calls. As with so many others, I have had several good friends who were killed while flying. All were on training missions, minus one who was shot down over El Salvador. So why were my incidents only close calls and they died? My philosophy about flying was that I refused to have my son grow up without a father.

It didn’t matter who was onboard, the most important person on that aircraft was my son’s father. If my son’s father made it back safely, then so did everyone else. To me, hoping nothing happened was not an option. I owed it to my son to actively pursue ways to reduce risk. Flying Army helicopters is a dangerous business. Why would anyone do something to increase that danger?

There are several different sayings about safety such as “Safety first!” and “Mission first, safety always!” They may brief well, but too often they’re just words. Safety gets a lot of north and south nods, but I see a lot commanders and leaders not investing personal interest and being actively involved in “their” safety program.

One thing I have learned is that a commander’s safety program will not be effective if the noncommissioned officers do not buy into and support it. Safety officers must work with the NCOs and ensure they have the tools they need to set the example and enforce standards. The best safety program in the Army may produce a fatality while the worst safety program doesn’t. Odds are, however, the unit with a proactive safety program — NCOs holding Soldiers to standards and commanders actively involved with the safety of their Soldiers — will have fewer accidents, higher moral and better unit cohesion. You don’t have to go through official safety training to know if something is unsafe. A good rule of thumb is if it looks wrong, it probably is.

I have had senior officers tell me they just witnessed Soldiers performing unsafe acts and I needed to do something about it. When asked what they did to correct the unsafe acts, I have been told three times, “That’s your job.” While that may be true, we all need to do our part to keep each other out of harm’s way. Hoping something doesn’t happen is not an effective, viable safety plan. We owe it to the parents, spouses, children and siblings to do everything we can to keep their Soldiers as safe as possible so they go home unharmed.
TORNADO PREPAREDNESS
MARIO SUMTER
Directorate of Plans, Training, Mobilization and Security
Fort Belvoir, Va.

Emergency management is one of the most challenging tasks for individuals and organizations and cannot be overlooked. Thinking ahead could mean the difference between life and death. Your safety, as well as that of your family members, co-workers and Soldiers, depends on weather preparedness.

Summer is here, and along with it comes another push by emergency management professionals to prepare for hazards associated with warm weather. Hazards vary throughout the country, but there’s one that can happen anywhere at any time — a tornado.

Tornadoes are nature’s most violent and deadly storms. With wind speeds up to 300 mph and paths of destruction stretching as much as mile wide and 50 miles long, tornadoes can cause fatalities and demolish neighborhoods. While some of these storms are clearly visible, rain or low-hanging clouds can mask others.

I’d like to stress the importance of preparedness, which can be tricky because of the suddenness and inability to predict exactly where a tornado will strike. Although they don’t have a particular season, they do have periods where occurrences peak. It largely depends on the part of the country — almost by state — when they have the best chance to develop and strike. Advanced notice for tornadoes has improved, but the National Weather Service can only predict where one may strike within a 15-minute window. Therefore, it’s important everyone is prepared.

Before a Tornado
• Identify a place in your home (a safe room) to take shelter in case of a tornado. The time to identify this location is now. Have frequent tornado drills to practice going to the safe room. A storm shelter or basement provides the best protection. Otherwise, choose an interior room or hallway on the lowest floor possible.

• Get a weather radio. Make sure it can store a charge or can be hand-cranked.

• Watch for the following danger signs in an approaching storm and be prepared to take shelter immediately:
  ~ Dark, often greenish sky
  ~ Large hail
  ~ A large, dark, low-lying cloud (particularly if rotating)
  ~ Loud roar, similar to a freight train

• Know the terms and verbiage associated with any weather event. Familiarize yourself with these terms to help identify a tornado hazard.

• Remain alert for approaching storms. Listen to NOAA Weather Radio or commercial radio or television newscasts for the latest information. In any emergency, always listen to the instructions given by local emergency management officials.

During a Tornado
• If a tornado has been spotted or indicated by weather radar, take shelter immediately in the designated safe room. If you are outside, find shelter immediately. If shelter is unavailable, lie flat in a ditch or low-lying area. If in a vehicle, stop immediately and find shelter. Do not try to outrun or drive through a tornado.

• Stay tuned to radio or TV for information and instructions as they become available and stay in the shelter until the tornado has passed.

After a Tornado
• Injury may result from the direct impact of a tornado or may occur afterward when people walk among debris and enter damaged buildings. Check for injuries. Do not attempt to move seriously injured people unless they are in immediate danger.
of further harm. Stay clear of downed power lines and out of damaged areas. Inspect your home for damage, but be careful of unseen hazards.

- Stay tuned to the radio or TV for further information or instructions.

- Prepare now for a tornado. It may never happen in your area, but if it does, you will be ready if you follow the basic guidelines above. Know the terms for watches and warnings (see info box below) and what to do to protect your family. Remember, prepare, practice and be ready now.

FYI

- Tornado Watch — Atmospheric conditions are favorable for the development of severe thunderstorms capable of producing tornadoes

- Tornado Warning — A severe thunderstorm has developed and has either produced a tornado or radar has indicated intense low-level rotation in the presence of atmospheric conditions conducive to tornado development

Source: National Weather Service

FYI

Ready Army is the Army’s proactive campaign to increase the resilience of the Army community and enhance the readiness of the force by informing Soldiers, their Families, Army Civilians and contractors of relevant hazards and encouraging them to Build a Kit, Make a Plan and be informed. Through outreach and education, Ready Army calls our Army community to action and aims to create a culture of preparedness that will save lives and strengthen the nation. To learn more, visit http://www.acsim.army.mil/readyarmy/.
Who needs personal protective equipment? Not me … at least that’s what I used to think.

When I was 8 years old, my best friend got a mini-bike for his birthday. I immediately wanted one too. Unfortunately, my mom and dad were just like all the adults in the movie “A Christmas Story.” But rather than, “You’ll shoot your eye out,” all I heard was, “You’ll kill yourself.”

Years went by and I never got my mini-bike. Once I got married, though, I thought I’d revisit the idea and buy a motorcycle. But now it was my wife (the paramedic) who protested, saying, “No way! Someone won’t see you and you’ll get killed.” For the record, I always thought that argument was a little weak since my job was being a Marine. But still, I didn’t get a bike.

Fast forward 20 or so years and retirement was finally on the horizon. So what did I do? Well, I did what any 44-year-old retiring Marine does — I went out and bought a motorcycle! I wanted to do it right, though, so I went through all the rider training, heard all the stories — from the instructors and my wife — and served as a ground safety officer for several different units in the Marine Corps.

I started slowly, at first only riding in my neighborhood. I eventually progressed to riding to work, and then participating in group rides with the guys on the weekends. With each new level, I further built up the “motorcycles-aren’t-that-dangerous” mentality. As I continued to increase my learning, the “it-won’t-happen-to-me” attitude also started rearing its ugly head.

During this time, the Marine Corps was going back and forth on various motorcycle polices, including whether we should be required to wear a riding jacket or just a long-sleeved shirt. The final decision was that a long-sleeved shirt would suffice. Since retiring, I’d worn short-sleeved shirts to work as a contractor on base, but I had to comply with the regulations. Since North Carolina summer mornings can be hot and muggy, I bought a very thin long-sleeved running-type shirt that would satisfy the requirement without causing me to overheat. I figured I could always take off the shirt once I got to work. By now, I had gotten so comfortable with my abilities, I was also wearing sneakers, and sometimes shorts, on weekend rides.

One evening while coming home from work, a young girl turned right on red without stopping just as I was turning left against traffic. I collided with her vehicle and was thrown to the ground, my bike landing on top of me. Once paramedics arrived, I was taken to the hospital for treatment. Fortunately, my only injury was a severe case of road rash on my arm.

What saved me from further injuries was the fact that I had just left work. I was wearing safety boots, not as PPE for riding, but as a requirement for my job. I was also wearing gloves because I hadn’t had a chance to take them off since leaving the installation. North Carolina has a helmet law, so my head was protected, which is more than I can say for my arm. The thin long-sleeved shirt I was wearing offered little protection from the asphalt, hence the road rash.

So I ask again, “Who needs PPE?” Well, for one, this ol’ retired Marine. And you do too! I hope this will be a lesson that it can happen to you. The old adage “Dress for the slide, not the ride” is now “tattooed” on my arm. It was a painful lesson I won’t soon forget. Keep the shiny side up!
DON’T MESS WITH MOTHER NATURE
CHIEF WARRANT OFFICER 3 OSCAR LOPEZ
U.S. Army Air Ambulance Detachment
5th Aviation Battalion
Fort Polk, La.

It was midsummer in Iraq, and I was a young pilot on a night vision goggle flight. My mind, however, was on my upcoming environmental leave, which was to start the next day.

Our aircraft was lead in a flight of two UH-60Ls during a regular battlefield circulation which was to last just under the limit of our set max NVG flying time of six hours. My pilot in command was the company’s senior maintenance test pilot who was not accustomed to flying with NVG and/or instruments. He was on the schedule that evening for a goggle reset flight so he would not lose his NVG currency.

Our unit had been in country for nine months of a 15-month deployment. It was my very first deployment as an aviator, and, at that point, I had accumulated a total of 350 hours, of which, about 200 were on NVG. The PC’s experience included a prior deployment to Iraq, with about 1,000 flight hours, 250 of those under goggles.

The weather was questionable at best. We had a window of opportunity to launch from Contingency Operating Base Speicher, our home base, to the Baghdad area to conduct our mission. The recovery weather we received prior to departure was not looking good. It read: “Departure 3½ miles with dust clear skies.” En route, they gave us four miles, at best, to the south, and for recovery, a half-mile visibility with dust due to a shamal that was moving east to our area of operation during our recovery period.

There was no illumination for our time period, and the moon was scheduled to rise after our mission was complete. The weather briefers advised us not to recover during that time, but if we had to, recover just 30 minutes prior because we had a very good chance of missing the bad weather.

I know what you’re thinking by now: Army Regulation 95-1 states, “Destination weather must be forecast to be equal to or greater than visual flight rules minimums at estimated time of arrival through one hour after ETA,” so we shouldn’t have even launched because we didn’t have good recovery weather. However, our battalion commander’s philosophy was to launch regardless if you had recovery weather. He expected his crews to launch if they had a legal “launch” weather brief and attempt to accomplish the entire mission, part of it or at least give it a fair try.

We managed to launch with a mutual understanding that we’d speed up during the long legs of the flight, minimize time on the ground by having a set plan at each stop and expedite refueling at any forward arming and refueling point in an attempt to recover before the shamal arrived at the forward operating base. We were able to cut down our flight time and started to head home. We decided to pull maximum range for the last leg of the flight, which was about 135 knots indicated airspeed. As we approached the 10-nautical-mile veil of the Class C airspace, the tower informed us that the field was instrument flight rules (2½ miles visibility and dropping rapidly) and for us to state our intentions. We requested a special VFR clearance to complete our recovery, and it was granted with no issues.

The visibility was without a doubt right at two miles, and by that time, we were about three miles outside the COB. We did not have the gas to turn around and recover at another location because of the remote location of COB Speicher. We decided to push on.

At one mile out, the shamal hit and we lost most of our visibility with the ground. The PC was on the controls at the time and became spatially disoriented, yanking aft on the cyclic and causing us to lose airspeed and climb. We were flying at about 500 feet above ground level and quickly climbed to 1,400 feet. I got on the controls and asked him what he was doing. He said he was suffering from spatial disorientation, so I took the controls, regained airspeed and leveled the aircraft. Suddenly, he said he had visual contact with the ground, grabbed the controls and dove. We entered an accelerated descent and quickly lost about 1,200 feet AGL. The second aircraft in the flight followed us through the maneuver, and the entire flight managed to land safely at the COB.
The lessons learned from this incident included “get-home-itis” syndrome. The fact that both the PI and PC were going on environmental leave the next morning only added fuel to the fire. Never push weather. We knew the weather was going to turn bad, yet we decided to continue through with the return flight. In situations like this, crew coordination becomes essential in the safety of the flight and crew. Not one person in the flight announced their intentions and simply took action without announcing it. This, and others situations I have encountered in my career as an Army aviator, have sharpened my intuitions and have made me a better pilot.
FOCUS ON THE CAN, NOT THE CAN’T
TRACEY RUSSELL
Ground Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

There is a great deal of controversy surrounding Public Law 111-383, more commonly referred to as the National Defense Authorization Act for Fiscal Year 2011, or NDAA, among many Army commanders and leaders. Much of the controversy, however, is rooted in misperception.

At issue is Section 1062 of the law, concerning: “Prohibition of infringing on the individual right to lawfully acquire, possess, own, carry, and otherwise use privately owned firearms, ammunition, and other weapons.” This section of the law, which is intended to protect the Second Amendment rights of service members, has been interpreted by many leaders to mean that they can no longer talk to their Soldiers about privately owned weapons.

At the heart of the issue is that the law states “in general” that the secretary of defense (and subsequently subordinate commanders and leaders), “… shall not prohibit, issue any requirement relating to, or collect or record any information relating to the otherwise lawful acquisition, possession, ownership, carrying, or other use of a privately owned firearm, privately owned ammunition, or another privately owned weapon by a member of the Armed forces …”

The law does provide exceptions in the general rule for military installations and other properties owned or operated by the Department of Defense. Additionally, the law provides exceptions for situations such as the belief that a Soldier presents a threat to himself or others. Congress amended the law in the 2013 NDAA to clarify the threat exemption, and ALARACT 063/2013, Control and Reporting of Privately Owned Weapons, provides further guidance.

So essentially, what the law does state is that under normal conditions, you can only inquire about or collect information on privately owned weapons brought onto a military owned or operated property or installation. However, what the law does not do in any shape or form is prohibit you from discussing the safe handling of privately owned weapons with your Soldiers.

Not only can you discuss privately owned weapons with your Soldiers, you should talk about this issue, as well as the safe handling of military weapons. In the five-year period from fiscal 2008 through 2012, 29 Soldiers lost their lives as a result of accidents involving the discharge of a firearm, while another 160 non-fatal injuries were reported. Eighteen of the 29 fatalities occurred off duty with a privately owned weapon; the other 11 occurred on duty with military weapons. (Statistics are as of October 2012).

The basic tenets of safe weapons handling apply to all weapons regardless who owns them. For starters, we don’t hand new recruits an M-4 and expect them to operate it safely without training. We also don’t assume that once they have qualified with an M-4 that they are qualified to operate a .50-caliber machine gun. Therefore, you, in addition to your Soldiers, should never assume that because you are an expert with an M-4 that you are an expert with all weapons.

While you can’t order a Soldier to participate in training with their privately owned weapons, you can recommend and provide information on privately owned weapons training available in your local area or consider offering a voluntary basic weapons safety class, as Fort Sill is currently doing. You can also mandate that all of your Soldiers attend safety classes covering privately owned weapons.

Privately owned weapons classes should stress the need to know appropriate laws, regulations and procedures for the transport, storage and registration of weapons, as they vary among states, localities and military installations. The classes should also stress never mixing weapons and alcohol. The majority of fatal accidents involving privately owned weapons have also involved alcohol. Most importantly, anyone handling any type of firearm needs to THINK weapons safety:

Treat every weapon as if it is loaded.  
Handle every weapon with care.  
Identify the target before you fire.  
Never point the muzzle at anything you do not intend to shoot.  
Keep the weapon on safe and your finger off the trigger until you intend to fire.
For more information on safe weapons handling, check out the Range & Weapons Safety Toolbox at https://safety.army.mil/rangeweaponssafety. The toolbox includes a section dedicated to privately owned weapons, which contains a copy of ALARACT 063/2013, along with safety messages, presentations, videos, posters and links to other tools and resources.

Remember to focus on what you can do. A very wise first sergeant once told me that if you aren’t listening, you aren’t leading. From personal experience, I know that if you truly listen to your Soldiers, there is very little they won’t tell you, to include their recent purchase of an awesome weapon. No, you can’t record that information, but you can use the opportunity to share some safety tips.
GONE WITH THE WIND
DAVID L. HOUGH
http://www.soundrider.com

Cruiser Carla finally saved up enough vacation time to take that big cross-country trip, and today she is heading west on Interstate 90 across South Dakota. Last night, there was something on television about high winds across the plains, but she was too tired from yesterday's ride to get the message. This morning, the breeze is kicking up little whirlwinds in the parking lot, but the sun is warming up the air, and it looks like another good day to lean back in the saddle and motor off toward the horizon.

Carla likes the feel of her cruiser. The low seat allows her to reach the ground with both feet. She has added a big windshield on the front and highway pegs so she can stretch her feet forward. She doesn't like the appearance of hard bags, so her gear is stacked up on the back of the saddle.

For the first hour, there are a few disconcerting wind gusts, but the sky is blue, the cruiser is thrumming along sweetly and Carla continues to enjoy the freedom of the road. She takes a break at Mitchell to see the famous Corn Palace, but when she comes out to saddle up again, she realizes the blue sky is rapidly disappearing behind a wedge of swirling black clouds.

Back on the superslab, the wind has shifted around to the southwest, and the gusts are getting stronger and more frequent, slamming into the bike from the left front. Carla can barely hang on. The leather fringe on her jacket whips against her exposed neck. The wind keeps tugging at her half helmet, and grit blows into her eyes behind her sunglasses.

Crossing the bridge at Chamberlain, a nasty gust suddenly hammers into the bike, slowing and pushing it toward the railing. Carla's heart jumps into her throat as she struggles to steer the bike away from the railing. Then, as the gust suddenly passes, the bike swerves left and Carla is barely able to keep it out of the oncoming lane.

For the next 100 miles, she can't shake the images of a bike and rider cartwheeling off the bridge into the Missouri River or slamming head-on into an 18-wheeler. The ride has ceased to be fun, but Carla forges ahead into the prairie winds, refusing to delay her schedule. By the time she has battled her way to Wall, she is exhausted, flayed, windburned, dehydrated, scared and angry. To top off her frustration, the engine sputtered onto reserve 20 miles back. And when she dismounts at the gas station, a gust slams into the bike and pushes it over before she can catch it.

“Dang wind!” Carla screams. “I hate the wind!”

Most of us can empathize with Carla. Motorcycles can be tricky to control in crosswinds, especially gusting crosswinds. We try to keep the motorcycle balanced, but the gusts suddenly slam it sideways and then, just as suddenly, let up. It's a constant battle to stay between the lines. Is there some method to riding in this windy madness, or do we just have to tough it out?

Sometimes riders contribute to the problem without realizing it. The fringe on Carla's riding jacket is stylish, but it flails around in the wind, adding to the annoyance. Her half-helmet and sunglasses are cool looking, but they can't keep the wind and grit out of her eyes. The forward-mounted highway pegs make steering more cumbersome and strain her back and shoulder muscles. Stacking her gear up on the back of the saddle is handy, but that also creates a “sail” high above the rear wheel. Let's consider how different motorcycles react to wind, and how the motorcycle/rider ergonomics relate to ease of control.

Sails
A bike with lots of sail (for example, a tall windshield or large fairing) is more susceptible to crosswinds. The shape and location of the sails is just as important as the size. Remember, a motorcycle tends to roll (lean) around its center of mass (center of gravity). A crosswind pushing on the area below the center of gravity has less effect because it's being resisted by tire traction. But wind blowing on the sail above the center of gravity is more able to push over the bike.

We should expect that wind pressure on a frame-mounted windshield or fairing would push the bike downwind. What's not so obvious is that sails mounted on the front fork will apply a steering force to the front wheel. Steering forces the bike to lean, whether it is our hands pushing on the grips or the wind pushing on the front fender. The relative position and shape of sails attached to the front fork, including fenders, fairings and windshields, will have an effect on how the bike handles in windy conditions.
For example, a large handlebar-mounted windshield leaning back behind the steering axis might be more stable in calm air, but will steer the machine into more of a downwind lean in a side gust. A front fender with more sail ahead of the steering axis might actually steer the machine upwind during a gust. Steering will be more neutral if a handlebar-mounted windshield is mounted in line with the steering axis.

A bare bike can theoretically be as stable as a faired machine, except that the wind tugging at the rider’s arms will impart some unintentional steering input. For instance, a strong gust from your right will push your elbows toward the left, countersteering the bike into even more of a left lean. Saddlebags mounted no higher than the machine’s center of gravity will be less likely to push the bike downwind. Bulky sails such as a sleeping bag strapped up high or a duffle cantilevered over the taillight can cause strange steering. A large, boxy tail trunk (top box) is handy for carrying extra gear, but the combination of tail trunk and a passenger creates a large sail high up on the bike and far from the center of gravity.

**Ergonomics**

The way you sit on the machine and reach for the controls (the ergonomics) also has a dramatic effect on how well you are able to control the machine. For best control in difficult conditions, the rider should be seated on the saddle with their torso leaning slightly forward, arms slightly bent at the elbows and hands grasping the handlebar grips at a comfortable angle. Footrests located beneath the rider’s center of gravity make it easier to brace against the tank and shift body weight from one peg to the other.

What’s not so obvious is that when you push on the handlebar grips, you use your legs to brace yourself. Cruiser-styled machines with forward-mounted foot pegs and high handlebars may look cool, but the ergonomics are far from ideal for steering a motorcycle. Sports bikes provide more accurate steering control, but the lean-forward position can quickly strain shoulder and neck muscles. So, ergonomics are always a compromise between control and comfort.

Consider that the ergonomics determine which muscles are used to lean the bike. Quick, powerful steering inputs require quick, powerful muscles, like those in your arms. To understand this concept, lean your torso forward in your chair with your feet flat on the floor. Stretch both arms straight forward as if you were reaching for some imaginary forward-mounted handlebars. Reach out far enough that your elbows are locked straight. Now, turn your imaginary handlebars a little to the left, and then a little toward the right and think about which muscles are doing the work. With your arms locked straight, you must use your back muscles, right? And when you’re pushing with your shoulder muscles, you’re probably bracing with your legs, too.

Now, pull your imaginary handlebars back toward you just enough that your elbows are bent slightly, and try steering left-right again. With your arms bent, you can steer with your arm muscles, which happen to be quicker and more accurate than the larger muscles in your shoulders, back, buttocks or legs.

**Rider Skill**

Even if the machinery, loading and ergonomics are perfect, a rider’s balancing/steering technique has a lot to do with accurate control. Riders who consciously countersteer have better control and less frustration in windy situations than riders who merely think “lean,” or who try to steer by shifting body control. Countersteering is momentarily steering the front wheel opposite the direction you want the bike to lean. That is, to lean the bike right, you would steer the front wheel to the left. So, to lean right, press on the right grip. To lean left, press on the left grip.

When riding through strong winds, you must lean the bike into the wind, and that may require forceful pushing on the grip. For example, with a strong but steady crosswind from your left, pushing on the left grip will lean the bike left (upwind). If the bike drifts too far downwind, you need to lean it even more toward the wind. Pushing a little harder on the upwind grip will lean it over more and point back toward your desired line. Of course, when the wind suddenly decreases or changes direction, you will need to quickly countersteer to whatever angle is needed to keep the bike within the lane.

When riding through crosswinds, you may get some strange feedback from the front wheel. It may require more pressure on the grip than during a curve, since the contact patches are way over on one side of the tires even though the machine is traveling straight ahead. Just concentrate on countersteering to make the motorcycle go in whatever direction you wish and let the tires swerve around under you. Many of us have ridden for miles through strong crosswinds with the bike leaning over at a startling angle, controlled by firm pressure on the upwind grip.
Gusting Crosswinds
The most difficult situation is with strong gusting winds. Suddenly a gust slams into the bike, pushing it off on a tangent toward the shoulder or into the opposing lane. What's needed to counteract gusts is to get the bike leaned over quickly into the wind. And the way to lean a bike quickly is to countersteer forcefully, the same tactic you'd use to initiate a quick swerve around a pothole. If the gust increases, just push a little harder, but be prepared to push hard on the other grip to straighten up again as the gust passes.

Be aware of the tendency to counteract one hand with the other. When you're pushing hard on the left grip, you may be stiff-arming the right grip without realizing it and wondering why you can't get the bike leaned quickly. So, when countersteering, try to focus your energy on one grip, and relax your other arm. In other words, to lean the bike toward the right, push with your right hand and relax your left arm.

Since we can't see the air, it helps to have some understanding of what wind does around other vehicles and structures. Oncoming trucks can push a powerful “bow wave” toward you, or the wind may swirl around behind the trailer. Be especially wary of large vehicles approaching from upwind, and move as far away as possible to avoid the blasts. When you're about to exit a tunnel or cut between two hills, be prepared to countersteer into a sudden gust.

We might also note that Carla's wind troubles grew worse toward afternoon. That's because wind typically gets stronger and more turbulent as the earth warms up. There are many locations in North America where a strong wind is expected every summer afternoon. For example, in the Columbia River Gorge between Oregon and Washington, the cool coastal air rushes inland to replace the hot air rising over the deserts. For the wind surfers, it's heaven. For motorcyclists, it's less fun. In such locations, wise riders make the trip earlier in the morning, before the afternoon wind kicks up.

Body Armor
Armored gear is an important precaution for windy conditions. But gear that helps you avoid fatigue, irritation, headaches or frustration will help you avoid accidents. Wear sensible riding gear that covers all skin and keep everything zipped and buttoned closed. It's very important to wear your earplugs because the wind velocity when riding into the wind generates noise levels way up into the injury range. That headache at the end of the day may be a result of wind noise. Most importantly, wear eye protection that keeps windblown grit out of your eyes.

Know When to Fold 'em
You don't have to like wind, but you can gain the confidence that comes from knowing you can control the bike under most wind conditions. We mention most, because sometimes winds are so violent that it's unwise to continue riding. I can recall dropping down off a pass in eastern Oregon early one spring to find myself headed straight toward a sinister silver-streaked cloud moving across the valley ahead. I didn't understand what I was seeing until the sleet squall hammered into the bike. Suddenly, I was about to lose control, the bike being pushed so hard sideways the tires were beginning to slide.

I made a quick downwind U-turn, sped back to a road maintenance area I had just passed, laid the bike on its side in the lee of a gravel pile and hunkered down until the squall moved on. In the tornado alley between Texas and the Great Lakes, motorcyclists must be aware of the extreme hazard of twisters. If there is a tornado alert, consider delaying your trip or changing the route to ride around the area. If you do head out and find yourself in the path of a tornado, take evasive action immediately. If you have no other place to hide from an approaching tornado, tuck yourself under a highway overpass or into a drainage culvert. Don't waste any time trying to protect your bike.

Homework
The homework exercise for gusting winds is to practice countersteering (push steering) all the time as you ride along. Approaching a curve to the right, consciously push on the right grip to lean the bike. Changing lanes toward the left, push on the left grip. Or, if the ergonomics of your machine have you leaning back and pulling on the handlebars as you ride along, try pulling both grips toward the direction you want to go. For a right turn, pull both grips toward the right. If you practice countersteering every time you ride, you'll lean the bike into sudden wind gusts without having to think about it.
ACCIDENT BRIEFS

AVIATION

AH-64D
Class A
Both pilots died when their aircraft struck the ground. The accident is under investigation.

GROUND

AMV
Class A
A Soldier was killed when the HMMWV he was riding in overturned. He was not wearing a seat belt.

PERSONNEL INJURY

Class A
A Soldier died after being shot by a privately owned weapon. The Soldier, who lived in an apartment with two other Soldiers, was seeking safety from a civilian intruder. When the Soldier entered a room, he was mistaken as the intruder and shot by another Soldier.

A Soldier drowned during an overnight fishing trip.

Class B
A Soldier’s finger was amputated after his ring got caught on a metal ladder while dismounting a HMMWV.

DRIVING

PMV-4
Class A
A Soldier died when his vehicle left the road, overturned and collided with two other vehicles.

PMV-2
Class A
A Soldier died after he lost control of his motorcycle at a high rate of speed, left the road, went airborne and struck an embankment.

A Soldier suffered a permanent disability injury when his motorcycle struck a pickup truck that entered his lane.
KNOWLEDGE

OFFICIAL SAFETY INFORMATION OF THE U.S. ARMY

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PUSHING THE LIMIT
FROM THE DASAF

Taming the Dog Days

The fact that the fiscal year coincides with the end of summer can be a cruel coincidence for those of us in safety. There’s no buffer zone that allows us to bounce back from a bad fourth quarter, which traditionally is our Army’s worst time of year for accidents. Slow and steady gains made throughout the year can be diminished quickly by just one or two bad months, and that could kill motivation to keep working toward safety goals. But thus far in fiscal 2013, it looks like we won’t have that problem: With about two months left to go, accidental fatalities are still 20 percent lower than this time last year. That decline has held steady for several months now, but to keep it going, we’ll have to stay on top of our game through August and September.

Here are some areas to highlight with your Soldiers during safety briefings and end-of-summer stand-downs.

PMV. This year’s substantial drop in private motor vehicle fatalities is one of the Army’s best news stories in years. As of July 23, fatal accidents in sedans were down 33 percent and pedestrian deaths by half. Motorcycle fatalities had dropped 30 percent from the same time frame last year. These successes run counter to the fears many of us had during the early days of the drawdown in Iraq and the continuing de-escalation of operations in Afghanistan, which together have contributed to more Soldiers at home station than any time in the previous decade-plus. They truly are reflective of the commitment our leaders have to safety and our Soldiers to looking out for themselves and one another. Quite simply, our people made this happen!

There’s never a good time to let down our guard, though, especially as Soldiers are eager to enjoy the limited time left before summer vacations are over and kids head back to school. “Get-there-itis” can be just as deadly an affliction as any terminal disease, and it’s claimed far too many Soldiers on leave or pass through the years. The two or three minutes gained by excessive speeding are not worth the risk Soldiers and their Families face in a vehicle crash. The destination will always be there, but they may not be if they let the hurry take over. Proper planning and the right frame of mind are key to ensuring road trips begin and end safely and happily.

Unfortunately, we haven’t seen a similar decline in fatal water accidents; using July 23 data as a baseline, drownings have doubled from fiscal 2012. This summer has been marked by unusually erratic weather, and recreational water spots have been affected. Rip currents along the coasts and lakes and rivers that are either above or below normal stage all pose hazards to boaters and swimmers. Soldiers should be aware of and respect present conditions, regardless of their plans. The water isn’t going anywhere, but one impulsive decision can mean you aren’t there to enjoy it.

ATV. There’s always one accident category that catches us off guard every year, and this time it’s PMV-other fatalities tied to all-terrain vehicles. Numbers are small — three off-duty deaths overall — but still worrying, considering last year’s total was zero. Themes common to motorcycle accidents, including indiscipline and lack of personal protective equipment, have emerged in these accident investigations. While it’s too early to call this a trend, it’s definitely important to start talking to our Soldiers now about ATV safety, especially with autumn and hunting season approaching. We can go far by using the same approaches that have worked for motorcycles, but we have to open the conversation to make that happen.

You know best what’s happening in your formations, but the above points should give you a good start for reaching your Soldiers during these critical next weeks. We’re close to another record year for safety, perhaps the best we’ve ever had. But it’s not about the number’s you’ll brief at the end of the year; everything we do is to keep the Soldiers standing in your formations today there for tomorrow and beyond.

Please use the resources at https://safety.army.mil and let me know what else you need to keep your Soldiers safe. We’ll be rolling an updated website out during late fall to early winter, and I hope you’ll find it more user-friendly than the existing site. I’m eager to hear your suggestions, so please send me your feedback and let us work for you. Also remember the deadline for training your Soldiers and civilian employees on new elements of the Globally Harmonized System is Dec. 1; don’t let that target get lost as the summer rush turns into the holiday frenzy.
Thank you all for what you do every day — you make safety happen and save lives in ways you'll never know!

**Army Safe Is Army Strong!**

**TIMOTHY J. EDENS**  
Brigadier General, USA  
Director of Army Safety
This is a typical “there-I-was” story, much like the ones I enjoy reading about in safety magazines. The only difference is I am the subject, and the following events (yes, that’s multiple events) happened to me. The lessons learned motivated me to change the way I think about my favorite hobby — motorcycle riding.

The following events occurred during a two-week cross-country motorcycle trip while I was on block leave before leaving for a deployment to Afghanistan. The trip took me from Fort Drum, N.Y., to Pensacola, Fla., and back. To ensure I stayed safe, I planned the 3,000-mile journey meticulously and completed my TRiPS assessment, which was command briefed and blessed.

Day 5 of my trip would have me on my cruiser from Columbus, Ga., to Newport News, Va., a 700-mile expedition with a 10½-hour ride time. I knew some riding days would be longer than others, but this one was especially lengthy. With fuel stops and planned breaks, the trip was scheduled for about 12½ hours. It would be a long ride day, but it was doable. The weather was looking good and my bike was properly maintained and prepared for the trip. I had also slept in a decent hotel and rested well, so I felt mentally and physically ready.

I left the hotel at 5:30 that morning to gas up and go. My plan was to avoid the awful rush-hour traffic in Atlanta, but I encountered my first snag while trying to pay for the fuel. That delay set me back an hour, which meant I was going to hit the traffic head on, something I wasn’t looking forward to doing. I was already an hour behind, so now my trip was going to take at least 13 hours.

Of course, traffic caused me another three-hour delay, so now the trip timer was up to 16 hours and I hadn’t even gotten out of the state of Georgia. Eventually, though, I got into a rhythm of quick breaks every hour to hydrate, fuel, grab a bite to eat and get back on the road.

By 2 p.m., I was about nine hours into the ride. I was making decent time and trying to maintain my hydration and spirits. Once I reached the Charlotte, N.C., area, though, I encountered more traffic. Since I was riding alone, I made sure to leave myself an “out” when in traffic. Also, my attention level was high and my head on a swivel because tractor-trailers were everywhere. When it came time to pass a vehicle, I did it with authority, which means I didn’t dilly-dally around. There were no slow passes since a driver may not have even noticed I’d come up behind them.

Then I got behind a tractor-trailer.

I was preparing my pass when it happened — a loud bang and then debris. The big-rig’s tire exploded right in front of me. Instinct told me to slow down, so I was hard on the brakes as rubber chunks seemed to come at me from everywhere. As I looked for my out, I realized it had evaporated with my speed, and I was now surrounded by cars. This made avoiding the rubber debris impossible.

Fortunately, I was riding with a full-face helmet, and my windshield and other personal protective equipment helped keep me safe. After taking several hits from large pieces of tire, a car let me out of my lane so I could finally pass the truck. By now, my heart was going a thousand beats a minute, so I headed for the next exit to take a break and assess any damage the bike or I took. After sitting and sipping on a highly caffeinated cold beverage, I’d calmed enough to get back on the road. With my anxiety high, I questioned the decision to make such a long ride. I continued for another hour and half and was just about to take another break for fuel and food when lightning struck again. Yes, another tractor-trailer had a blowout — this time when I was in the middle of passing the rig.

While the blowout occurred on the opposite side I was on, the damage had been done. My anxiety was now through the roof. I was genuinely scared. I thought I was going to die on a North Carolina road. I pulled off the road again to calm down, eat and relax. I also called my wife to talk, but I didn’t mention my close calls. I didn’t want to worry her further. I then called my designation friends to let them know I was having issues.
While I ate, I contemplated my options. I could either ride another four hours to Newport News or grab a hotel and rest. I'd now been on the road for more than 12 hours and suffered two major events within the past two. "Get-there-itis" eventually won out, so I hopped back onto my bike and continued my trip. About five hours later, I finally reached my destination. All told, I had spent almost 18 hours on my motorcycle.

When I had time to reflect on my trip, I made several decisions that would affect future rides. I will never again try to travel more than 450 miles in one day. Also, my routes will mostly take me on smaller highways rather than interstates.

I didn't enjoy that ride day at all. I was very lucky, as a few of my choices could have proved fatal, especially the decision to press on to my designation. I want to impart to all riders that nothing is worth pushing the limits. Take time to get to your designation and, although it sounds cliché, arrive alive.
A TRAGIC FUNCTION CHECK
COMMAND SGT. MAJ. RONALD OROSZ
1st Army Division West
Fort Hood, Texas

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

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

The weapons status for M4 carbines and 9 mm pistols was AMBER, which means magazine with ammunition in the weapon, no ammunition chambered and weapon selector lever on safe. (The other weapon statuses are GREEN and RED. Weapon status GREEN means no magazine in the weapon and the weapon selector lever on safe. RED status means a loaded magazine in the weapon, ammunition loaded into the chamber and the weapon selector lever is on safe.)

Back at home station, Soldiers typically don’t walk around with weapons in AMBER or RED status unless they are on a live-fire training range. Even then, restrictions apply when Soldiers can and can’t have a magazine with ammunition in their weapon. Unfortunately, deployed Soldiers sometimes get complacent and forget they have a magazine with ammunition in their weapon. That mistake can have a disastrous outcome.

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

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

An experienced Soldier at one end of the tent finished cleaning his weapon and reassembled it. The final step after assembling the M4 carbine is to conduct a function check to ensure it works properly. A function check for the M4 carbine is conducted without ammunition or the magazine. The function check will confirm the mechanical operation of the weapon through a series of selector lever movements and trigger squeezes. This is a skill level 1 task, and all Soldiers should be familiar with this procedure.

In this particular case, the skilled and experienced Soldier put a loaded magazine into the magazine well of the weapon and started his function check. (Right now, you should be yelling, “Stop!”) This was not the correct way to perform a function check with an M4 carbine. The other Soldiers in the tent were unaware this tragedy was unfolding as weapons cleaning progressed, conversations continued and movie plots developed. The experienced Soldier attempted a function check with a loaded magazine in the weapon and discharged three rounds into a Soldier who was napping on a nearby cot. Tragically, the Soldier died from his wounds, and the Soldier that pulled the trigger was later punished according to the Uniform Code of Military Justice.

So what went wrong? The first step in weapon maintenance is to ensure the weapon is free and clear of all ammunition and therefore safe. For an M4 carbine, this can be accomplished by pointing the weapon into a clearing barrel or safe direction, removing the magazine, locking the bolt to the rear, visually inspecting the chamber and double-checking the magazine well (as well as showing your battle buddy) and returning the bolt to the forward position. The weapon will not discharge because the chamber was inspected and free and clear of ammunition. The weapon is now safe to disassemble and clean.

Weapons maintenance should be treated as a scheduled event and supervised. Watching movies or other distractions are contributing factors to inattentiveness and can cause accidents. Ammunition should be stored separately from the cleaning area but accessible when in a combat environment. Weapons should be treated as loaded at all times, and muzzle awareness is imperative. Keep fingers off triggers until time to engage a target. Always assume a weapon is loaded when receiving it from another person and inspect it to ensure it is clear of ammunition. Finally, never conduct a function check of an M4 with a magazine in the weapon! Engaged leaders can make a difference and prevent tragedies like this from happening again.
ROCKY MOUNTAIN HIGH
CHIEF WARRANT OFFICER 2 JASON CUTSFORTH
Detachment 1, C Company, 2-211th Medevac
Waterloo, Iowa

As a Soldier, I have had the pleasure of attending some of the best schools the Army has to offer. These schools have given me the knowledge and experience required to become a successful and contributing member of the Army National Guard, in my civilian career as a firefighter/paramedic and with my family. One school recently taught me the valuable lesson of knowing my personal limitations regarding high-altitude flight.

America’s “highest level” of flight training, the High-Altitude Army Aviation Training Site in Gypsum, Colo., is among the best at humbling even the most experienced aviator. HAATS offers students a unique training environment designed to dramatically increase individual and crew situational awareness. However, increasing situational awareness encompasses much more than being aware of the environment, terrain and radio traffic. It includes the ability to understand how the aeromedical factors of being at high altitude affect your emotions, judgment and thought processes.

My first experience in a hypoxic environment occurred while I was attending the flight medic course at the U.S. Army School of Aviation Medicine. During the course, students had the opportunity to train on the Army’s only hypobaric altitude chamber. The training required each student to demonstrate thorough understanding of the effects of altitude on the human body; how to recognize hypoxia and utilize available oxygen systems.

If you haven’t had the opportunity to attend this training, do so. The experience of being hypoxic and not knowing it will leave a lasting impression on you. During my training, I found it fascinating how my motor skills, thought process and attitude could become so degraded. Concluding the training, I believed I had the skills required to recognize a hypoxic state if ever I should encounter it again.

Many years later, I attended the HAATS UH-60 course when my medevac unit was preparing for deployment into Afghanistan. Among those attending the training with me as crewmembers were combat-tested Chief Warrant Officer 4 Charles “Chopper Chuck” Sharky and Sgt. Ben Russell. At the time of the training, I was a pilot with less than 300 hours total time, and Sharky was a pilot in command with thousands of flight hours. When instructors were assigned, our crew had the pleasure of drawing Col. Joel Best, the state aviation officer / regimental commander of the Colorado Army National Guard and former commander of the HAATS course. As you can imagine, I was a bit intimidated, but very glad to be instructed by someone with such vast knowledge and experience.

My second experience with hypoxic hypoxia occurred about midway through the course. It was a beautiful day in the Colorado Rockies, fresh snow, clear skies and a good 10- to 15-knot wind to help with training. As I climbed up into the cockpit, I noticed I had a bit of a headache starting, so I did as all good Soldiers do to cure any ailment we encounter — drink water — and we were on our way. Soon into the flight, I could feel myself becoming less focused on flying and more on looking at the mountains and beautiful scenery not found in the lonely flats of the Midwest. I quickly regained my composure and drank more water.

Soon after, Best demonstrated to me that our UH-60 Franken Hawk (an enhanced UH-60A) does actually hover at 14,000 feet out-of-ground effect. He then decided to train me on landing at one of the higher elevation ridges nearby. I found it incredibly difficult to maneuver the helicopter the way he was describing. Frustrated, I transferred the controls to have him demonstrate. The demonstration was complete, I had the controls, and I tried again with no luck. Like most type A, perfectionist pilots, I was getting really mad at myself. My body language was changing, my headache was getting worse and the tone in my voice must have been getting more impatient.

My crew chief was trying to provide excellent aircrew coordination by asking if I felt OK. Later, he told me I had said, out of frustration, things I wouldn’t normally say. That was his cue to ask how I was feeling. Best noticed right away that I was probably suffering from hypoxia and took the controls and we descended from high altitude. Soon after, I began feeling much better and realized I felt like I had been in a fog. I had not realized I became hypoxic.
The lesson learned for me was that hypoxia can set in quickly, especially if you are not accustomed to flying at higher altitudes. Water intake is critical at higher altitudes. Drinking the same amount of water as when I'm at home at 1,000 feet is simply not enough. Also, aircrew coordination becomes crucial, and a constant verbal feedback from crewmembers may give warning signs of possible hypoxia.

The hypobaric chamber is busy. The USASAM and the U.S. Army Aviation Research Laboratory at Fort Rucker, Ala., are continuously training classes and conducting experiments to improve equipment and processes to support flight safety. However, all aviators in flight training should be required to experience being hypoxic in a controlled environment. By providing this training to new aviators and using a good a risk management process, hypoxic situations that could contribute to accidents may be easier to recognize.
SCHOOL CROSSING
JOSEPH FENTRESS
U.S. Army Corps of Engineers
Kansas City, Mo.

My dad was a dedicated Soldier for 31 years. While many would think being an Army chaplain is a piece-of-cake MOS, I witnessed firsthand how his Soldiers’ and their families’ pain weighed on him. Throughout those years, I saw him cry only a couple of times. One of those times was when he thought I, his youngest son, was dead.

It was the morning of my first day of second grade at an elementary school outside of Fort Bragg, N.C. I remember not being able to find my cool Spider-Man jacket and my mom forcing me to wear an old hooded wool coat due to the chill in the morning air. With three young children to get ready for school every morning, my mom was not one to argue with, so I didn’t protest too much. Once we were ready to go, my dad, in his dress greens, loaded us into the back seat of the car. My brother sat behind the driver, my sister in the middle and I was behind the passenger seat. We were all excited to start our school day.

When we arrived at the school, my dad pulled over to the side of the road. The school was across the two-lane street that we had crossed what seemed like hundreds of times before. In my excitement, though, I jumped out, ran around the back of the car and then into the street toward the school.

And then I woke up.

I remember being confused and scared by how awkwardly my dad was sitting in the middle of the street while holding me. He was crying and screaming for an ambulance. It’s a sound no child ever wants to hear from one of his parents. I also remember wondering why my feet were cold. When I looked at my feet, my shoes were gone, and I asked my dad what had happened to them.

By now, a crowd had formed and I was getting embarrassed. Against my dad’s pleading, I wiggled out of his grip and fought my way to a sitting position. As I looked for my brother and sister, I noticed a woman in the crowd who was crying more hysterically than my father. I instantly realized she must have been the person who hit me. By the time the ambulance arrived, I was standing and telling my dad I was fine. I still wanted to go to school, but instead, I was rushed to the hospital where several other chaplains arrived and lovingly put some of my dad’s pain onto their shoulders.

I later found out the woman who hit me was a mother much like my own, just taking her child to school. It was determined she was following all traffic laws and not speeding. When I was hit, I was thrown about 10 feet in the air, cartwheeling so powerfully that my shoes were thrown more than 30 feet down the road. Fortunately, I landed feet first, and that big, ugly wool hood protected my head when it struck the street. (Thanks, mom!)

The safety lessons I learned that day revolve entirely around risk management, which my family still uses on a daily basis. Child safety locks on your vehicles aren’t just there to ensure your children don’t open a door in a moving vehicle; they also enable responsible adults to keep their children in the vehicle until it is safe to exit under their supervision. Also, the importance of teaching children to use crosswalks and always look both ways is a safety lesson that not only needs to be emphasized throughout their childhood, but also needs to be taught through a parent’s example.

As a safety specialist, I know safety doesn’t start at work and end when I get home. I consider myself the commanding general of my own little household post and hold myself accountable for the risk management tasks of not only keeping my children safe, but to also acknowledge risks when other children may be present. When in a school zone, consider the risk assessment matrix. One should not only explore the probability of an accident, but more importantly, the severity of an accident. A catastrophic accident will not only take you out of the mission, but could result in one of our future Soldiers from ever having the chance to serve.

I will always regret putting my dad through that experience. Even more, I feel bad about putting that poor woman through an ordeal that she most likely won’t ever forget. After I returned from the hospital, my parents made me call her to apologize and tell her I was all right. While she could barely speak through her sobbing, she did let me know how thankful she was that I was OK. I am thankful, too, because I am here to serve my country today.
SCHOOL BUS SAFETY
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

For 23 million students nationwide, the school day begins and ends with a trip on a bus. The greatest risk is not riding the bus, but approaching or leaving it. Before children go back to school, or start for the first time, it’s essential that they and their parents know traffic safety rules.

Drivers
- When backing out of a driveway or leaving a garage, watch out for children walking or bicycling to school.
- When driving in neighborhoods within school zones, watch out for young people who may be thinking about getting to school, but may not be thinking of getting there safely.
- Slow down. Watch for children walking in the street, especially if there are no sidewalks in the neighborhood. Also, watch for children playing and congregating near bus stops.
- Be alert. Children arriving late for the bus may dart into the street without looking for traffic.
- Learn and obey the school bus laws in your state. Learn the flashing signal light system that school bus drivers use to alert motorists of pending actions:
  - Yellow flashing lights indicate the bus is preparing to stop to load or unload children. Motorists should slow down and prepare to stop their vehicles.
  - Red flashing lights and extended stop arms indicate the bus has stopped and children are getting on or off. Motorists must stop their cars and wait until the red lights stop flashing, the extended stop sign is withdrawn and the bus begins moving before they can start driving again.

Children
- Get to the bus stop at least five minutes before the bus is scheduled to arrive.
- When the bus approaches, stand at least three giant steps (six feet) away from the curb, and line up away from the street.
- Wait until the bus stops, the door opens and the driver says that it’s OK to board before stepping onto the bus.
- If you have to cross the street in front of the bus, walk on the sidewalk or along the side of the road to a point at least five giant steps (10 feet) ahead of the bus before you cross. Be sure that the bus driver can see you, and you can see the bus driver.
- Use the handrails to avoid falls. When exiting the bus, be careful that clothing with drawstrings and book bags with straps don’t get caught in the handrails or doors.
- Never walk behind the bus.
- Walk at least three giant steps away from the side of the bus.
- If you drop something near the bus, tell the driver. Never try to pick it up because the driver may not be able to see you.

Parents
- Teach children to follow these commonsense practices to make school bus transportation safer.

Note: If a child walks or bikes to school, parents should select the safest route(s) and accompany the child several times to ensure he or she can reach school and home safely.
DROWNING DOESN’T LOOK LIKE DROWNING
RETIRED CHIEF WARRANT OFFICER 2 MARIO VITTONE
Norfolk, Va.

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

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

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

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

Pia, in an article in the fall 2006 issue of the Coast Guard’s On Scene magazine, described the Instinctive Drowning Response like this:

1. Except in rare circumstances, drowning people are physiologically unable to call out for help. The respiratory system was designed for breathing. Speech is the secondary or overlaid function. Breathing must be fulfilled before speech occurs.

2. Drowning people’s mouths alternately sink below and reappear above the surface of the water. The mouths of drowning people are not above the surface of the water long enough for them to exhale, inhale and call out for help. When drowning people’s mouths are above the surface, they exhale and inhale quickly as their mouths start to sink below the surface of the water.

3. Drowning people cannot wave for help. Nature instinctively forces them to extend their arms laterally and press down on the water’s surface. Pressing down on the surface of the water permits drowning people to leverage their bodies so they can lift their mouths out of the water to breathe.

4. Throughout the Instinctive Drowning Response, drowning people cannot voluntarily control their arm movements. Physiologically, drowning people who are struggling on the surface of the water cannot stop drowning and perform voluntary movements such as waving for help, moving toward a rescuer or reaching out for a piece of rescue equipment.

5. From beginning to end of the Instinctive Drowning Response, people’s bodies remain upright in the water with no evidence of a supporting kick. Unless rescued by a trained lifeguard, these drowning people can only struggle on the surface of the water for 20 to 60 seconds before submersion occurs.
However, this doesn’t mean that a person who is yelling for help and thrashing isn’t in real trouble. They are experiencing aquatic distress. Not always present before the Instinctive Drowning Response, aquatic distress doesn’t last long. But unlike true drowning, these victims can still assist in their own rescue by grabbing lifelines, throw rings, etc.

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

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

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

Editor’s note: Mario Vittone retired from the U.S. Coast Guard after 22 years in maritime operations. He now directs the maritime division at VLinc Corporation.
In 2004, I was a member of Company B, 1st Battalion, 150th Aviation Regiment, Delaware Army National Guard, and my unit was mobilized in support of Operation Iraqi Freedom III. We were a UH-60 aviation company assigned to provide troop and VIP transport missions in Kuwait and Iraq. This was our first combat deployment.

While at our mobilization station, our aircraft were upgraded and modified. We were flying UH-60A/L helicopters, and the modifications required a lot of new wiring and the replacement of old wiring. The upgrades were done by more than one contractor and all of our eight aircraft were modified prior to our arrival in Kuwait. All company aircraft were flown for training and then to the port and loaded onto a ship for the trip.

After arriving in Kuwait, I was assigned to fly a routine VIP mission. Our crew was to pick up the division commander and bring him to our base. The total flight time was about 30 minutes. I was the pilot in command, sitting in the right seat, and the other pilot with me was an experienced aviator.

The crew and I arrived at the aircraft about an hour and a half prior to liftoff to complete our preflight and configure the aircraft for the mission. The preflight revealed no deficiencies, and we entered into the aircraft and began the checklist. The aircraft auxiliary power unit was started to provide AC electrical power to run aircraft systems on the ground before starting the two main engines.

After performing the checklist, it was time to complete the flight controls check. This is done before the first flight of the day to test both the hydraulic systems and the helicopter flight controls and is normally accomplished by the pilot in the right seat. One part of the check is to move the cyclic control stick through its full range of motion. The operator’s manual states there should be no binding or restrictions during this test.

While moving the cyclic control, I noticed a slight restriction immediately followed by bright sparks and black smoke coming from the cabin ceiling between the pilots’ seats. We immediately shut down the APU, turned off the battery, exited the aircraft and used our company spare aircraft to fly the mission.

Fortunately, nobody was injured, but there was damage to the aircraft. The sparks and smoke were due to a wiring bundle being cut from one of the aircraft control tubes. The heat generated was enough to arc-weld the wire retaining clip to the control tube. Most, if not all, of the electrical relays in the aircraft were blown, and the aircraft was out of commission for an extended period of time before being returned to service.

This incident could have had serious and/or catastrophic results if it happened in flight. It is very important to use and follow all checklists because they and their associated steps are there to protect both personnel and equipment.
There are pros and cons to riding a motorcycle in a foreign country. First, though, riders must be familiar with the local laws of the host nation. There are several countries where there are no laws regarding the operation of a motorcycle, while others have written laws that are seldom enforced.

In Japan, for example, motorcyclists are permitted to ride between cars. This very dangerous practice could seriously injure or kill a rider if a driver decides to suddenly change lanes or open the vehicle door at a stop light. While stationed in Okinawa for several years, I saw firsthand just how differently the government enforces driving laws compared to the United States when I was involved in a motorcycle accident. Here's my story.

I'd left Kadena Air Base about 4 p.m. and was on my way home. As I neared an intersection about a half mile from Camp Foster, I noticed a vehicle approaching from the opposite direction. I made visual contact with the driver and proceeded into the intersection since I had the right of way. Without pause, the driver then turned right into my path of travel.

I had no time to apply the brakes, and my motorcycle struck the vehicle on the front left fender. The impact sent me airborne, and I landed on the hood of the vehicle. My momentum then carried me about another 20 feet. I landed hard on my right shoulder and finally came to rest on the other side of the vehicle. My motorcycle was lying on its side, dripping oil.

When I stood up, I realized I could not move my right arm. An ambulance transported me to U.S. Naval Hospital Okinawa, where X-rays determined my right shoulder was dislocated. The doctor gave me a large dose of painkillers before resetting my shoulder. They released me later that evening and I was placed in a limited duty status. I had to attend physical therapy due to the severity of the damage to my shoulder.

Fortunately, I was wearing all of the proper personal protective equipment required by the Status of Forces Agreement, which likely lessened the severity of my injuries. Unfortunately, my $400 Shoei helmet was ruined, as was my leather jacket. The estimate to repair my motorcycle was just less than $3,000. Amazingly, the driver's insurance company, as well as my own, settled and concluded the accident was my fault. The Japanese government essentially said that if I hadn't been in the country, the accident wouldn't have occurred.

I've been an avid motorcyclist for nearly 30 years. Despite this accident, I still own and ride motorcycles, but I learned a very valuable lesson that day. Before riding in another foreign country, I will always make it a priority to become familiar with all the local laws regarding motorcycles first.
KEEPPING RISK OUTSIDE THE WIRE
PATRICK W. FLEMING
Savannah, Ga.

The job of an aviation safety officer is practically identical to that of “007” — filled with intrigue, danger and martinis (shaken, not stirred). Well, maybe not so much intrigue or martinis, but definitely danger, as in protecting our service members from it. At times, the challenge can be quantifying the threat and then communicating its existence effectively.

When talking about the inherent dangers of containerized housing units, it’s hard for some Soldiers and civilians to accept that these can be both our refuge and downfall if not designed and maintained to standard. As an expeditionary force, the use of containerized housing has increased dramatically. In efforts to identify and install proper force protection measures, it’s important to know there are two basic models. The first, which is typically used for housing, has corrugated (ridged) one-sixteenths-inch Corten steel sides, is built in accordance with International Standards Organization 1496 and 668 to bear up to 65,980 pounds and can be stacked up to nine high. The second, used primarily for storage, has flat sides and is typically made of aluminum. Force protection measures must be postured accordingly when using various forms of these containers.

Project Management
As we move to occupy sites in the future, it becomes imperative we look forward and anticipate growth as small camps become larger and grow into bases. The oversight of life support area layout during the initial phase of construction is of particular importance in mitigating risks to container structures. One of the main considerations is generator (and supporting petroleum, oil and lubricants storage) placement. The key consideration is to prevent obstruction to the single means of egress from these units. That obstruction can come in the form of a fire, deflagration reaction or spill. The absence of functional windows in many of these designs means there is only one way out of the steel boxes. Therefore, it is imperative the proper means of egress is preserved. Additionally, the telltale black residue on the side of CHUs near generators can be an indicator Soldiers and civilians inside are potentially being exposed to carbon monoxide, nitrogen dioxide and ozone.

Facility Inspections
When constructed properly, CHUs endure the harshest conditions. Yet, their indestructible appearance can lead to complacency amongst the housing occupants and those who must inspect the LSAs. It’s important to mention that buildings should be certified by a qualified master electrician. This will require opening electrical panels to ensure the bonding jumper is installed correctly and to test of the grounding rods. However, not all safety officers are necessarily qualified to conduct those inspections.

Between 2004 and February 2013, there were two Class A accidents in which Soldiers died in the shower because their immediate area became energized. Additionally, there was a similar Class C accident in 2008 and two in 2009 that were the result of faulty wiring in air-conditioning units. Circuit breakers that consistently “trip,” ground fault circuit interrupter outlets that do not test correctly and extension cords that have been used as permanent wiring are all key indicators of areas that are at higher risk of having an electrical accident. Regular inspections will help remedy these and other issues that occur as intelligent, crafty people try to make work-arounds for inadequate facilities.

Occupancy Levels
As we attempt to reduce the footprint in our deployed locations and increase the Soldiers in others, it’s important to remember the Department of the Army Pamphlet 40-11 and U.S. Army Center for Health Promotion and Preventative Medicine Technical Guide 314 guidance for living space is clear. Seventy-two square feet is required per Soldier in any living area. The 20-foot shipping container, which is the standard CHU configuration, provides 148 square feet of usable living space, which exceeds the requirement for two people (bunked or not). Increasing occupancy above this number will increase the probability of disease transmission as well as egress time in the event of an emergency or fire.

Through proper project management, facility inspections and planning of occupant loads, we can use these facilities to their maximum potential safely. Let’s keep the risk to the force where it belongs — outside the wire.
GRACE UNDER PRESSURE
CHIEF WARRANT OFFICER 2 BARON BATES

It was the night of Sept. 17, 2006, when my pilot in command and I made a precautionary landing in Khan Bani Saad, Iraq.

I arrived in country fresh out of flight school and this was my 12th mission. I was very green at readiness level 2 and still having to fly with an instructor pilot while learning the mission as fast as possible. This flight was a night mission in direct support of a security force patrolling Khan Bani Saad, a small town just north of Baghdad. Khan Bani Saad had flared up in recent weeks with heavy fighting and violence.

Everything was going as planned the first couple of hours of the mission. It was a quite night. We were going to return to base in about 30 minutes when our AH-64A began to have violent, uncommanded control inputs. My PC performed the emergency procedure as published, releasing the digital automatic stabilization equipment. However, the violent control inputs did not stop. Without hesitation, my PC decided to land the aircraft in the first suitable landing area, a big field just below us. The only problem was it was in the middle of Khan Bani Saad.

At this point, my heart was racing. Here I was, a new warrant officer, about to make a precautionary landing outside the wire and I thought this was it. I just knew that as soon as we touched down, the bad guys would come rushing us. My PC was as cool as a cucumber the whole time; me, not so much. When he got the aircraft on the ground, he said, “What I want you to do is take your M4 and lock and load.” Little did he know I was already there. While he was remaining calm and landing the aircraft, I was grabbing my M4 and getting ready for battle. I was fired up and ready for whatever. I said, “I’ve got the left side, you take the right!”

We were in constant communication with our wingman, and they were in communication with the security force on the ground. Luckily, we landed pretty close to the ground unit on patrol. Our wingman immediately began talking them onto our location. They were on their way, but in the meantime, we were by ourselves on the ground, in a populated and hot area outside the wire. I was on pins and needles; my PC, still super cool. At least we had our wingman watching us from above.

What seemed like an eternity was probably about 15 minutes when the ground forces arrived and set up a perimeter. We were still in the aircraft when they arrived. I wanted to stay on the 30 mm just in case. Two ground guys walked up to the aircraft as if nothing was wrong. They were talking and smoking as if it was OK to be on the ground outside the wire. I quickly told them to keep it down. They thought it was funny. I couldn’t understand how they could be so calm because for an aviator like me, the only time I wanted to be on the ground was inside the wire.

We finally got out of the aircraft to wait on the downed aircraft recovery team. The two ground guys and my PC were talking and hanging out while I was pulling security. I still had my helmet and night vision goggles on, waiting for enemy. They thought I was stupid, but I didn’t care. I finally settled down after a couple hours. That’s right, hours. It took the DART team four hours to come and get us. But that is a story for another time.

Thankfully, we made it home safely that night. At first, I wasn’t so sure. Thanks goes to my outstanding PC for staying cool under pressure and making good decisions as well as our wingman for staying with us to coordinate relief on station while they went to refuel and then returning to cover us until we were picked up. All aviators appreciate ground units who arrive quickly to provide aid. My hat goes off to all the Soldiers who served or serve on the ground in Iraq and Afghanistan.
As Soldiers, we have all completed the online Army Accident Avoidance Course many times. And at the conclusion of each battle assembly, our leadership reminds us to drive safely. While these are both worthy efforts, the reality is human beings have a limited ability to maintain a heightened state of awareness. Nobody can stay fully alert for the entirety of an eight-hour drive. Therefore, it is important to recognize what driving situations require extra attention. My accident story, which resulted in the totaling of my car, is illustrative of such situations.

It was just before midnight and I was starting my nearly 450-mile drive from Orlando, Fla., to Fort Jackson, S.C. My plan was to arrive just in time for first formation, so I didn’t have much time to spare. As I drove north on I-95, I noticed a large number of deer feeding close to the roadside. This forced me to stay extra alert and drive slower than I would have otherwise.

When I entered the Jacksonville area about 2:30 a.m., I was able to somewhat relax since the threat of hitting a deer in such an urban area became less likely. At the time of my trip, my parents were in Hawaii, so I decided to break up the monotony of the drive by calling them using my hands-free system. During the call, I entered an area just north of downtown Jacksonville where the road has many curves.

As I traversed a long left-hand curve, I suddenly saw the headlights of a car coming toward me on my side of the interstate. Without even making a cognitive decision, I jerked the wheel hard to the left. This allowed me to avoid the oncoming car, but I knew I needed to get my vehicle headed back to the right ASAP. Just as I was turning the wheel back to the right, I slammed into a concrete median wall at 55 to 60 mph.

The airbags deployed, and when the car came to rest, I found myself without my glasses and surrounded by what looked like smoke but didn’t smell like a fire. Fortunately, it was just the remains of the airbag propellant, but at the time, I wasn’t certain that my car wasn’t about to burst into flames. I quickly grabbed my spare glasses, which were in the door map pocket, and literally leaped from small opening in the door. As I evaluated my condition, I was amazed to find that I had only suffered a small scratch on my thumb. Otherwise, I seemed to be unharmed.

When I looked across the three-lane road, I saw another driver had pulled over to check on me. He asked if I was OK, and I replied that I was fine. I then asked if he’d seen the car traveling the wrong direction on the interstate. The other driver said he did see the wrong-way vehicle, but this indicates how incredibly fast the entire event took place. Until he confirmed the existence of the other vehicle, I wasn’t even certain that what I thought had happened really occurred.

I later calculated, based on sight angles and likely speeds, that I had about 2.5 seconds to react once I first spotted the oncoming car. In reality, it’s unlikely that I was looking as far ahead of the curve as I could have. Why? Well, because on an interstate highway, there is never supposed to be any oncoming traffic. That’s why they are the safest roads in the country.

As I thought about the accident, I realized it would have been possible for me to have slammed right into the other car without ever seeing it. For example, had I chosen to take a drink of my coffee at that moment, I might not have even seen the car in time to make a maneuver. Even if I had seen it, would I have been able to make a controlled response with the coffee in my hand?

The lesson learned is that negotiating a curve, even a gradual curve on an interstate highway, is a situation that demands full alertness. There are many other situations, such as heavy traffic, bad weather, hills and passing tractor-trailers, that also demand a heightened level of attention. Again, since it is just not possible to maintain that heightened alertness for eight continuous hours, it is critical to maintain situational awareness in order to recognize when the situation requires that superior effort and attention.
A few years ago, my son and I went on an overnight hiking trip with his Boy Scout troop. We met everyone at the old depot near the News-Minor newspaper office in Fairbanks, Alaska. The plan was for the boys and chaperones to hike 16 miles over two days on the Granite Tors Trail with 30-pound backpacks. Eight miles up the trail, sleep and then eight miles back. Great in theory, but after we set out, things didn't turn out quite as planned.

We headed to the starting point of our trail — at mile marker 39.5 on Chena Hot Springs Road. As we pulled into the trailhead, we made ready our gear. The scoutmaster then called everyone into a group and started talking about bear safety. My son and I looked at each other. We had the same thought. “Who talks about bear safety? You mean we might see one in the wild?” Being new to Alaska, we were naïve about the local wildlife.

The scoutmaster told us to stay in a group because the bigger we made ourselves, the less likely a bear would attack with us. He also discussed the use of the bear spray a few of the adults were carrying. He showed the boys where each one was located on the adults’ backpacks.

The next thing I knew, the scoutmaster told us to go upwind. We obliged, and he then sprayed some of the bear spray to demonstrate how it works. The smell that permeated from that can was worse than the gas chamber in basic training. Even though we were upwind, Murphy’s law took over. The wind changed directions and we scattered while coughing and hacking. The only highlight from that lesson was we were pretty darn sure bear spray would work if needed.

The scoutmaster’s words about bears put me on high alert, and I wondered what would happen if we actually encountered one. I put my apprehension in the back of my mind as I got ready for the hike. Once done with the safety brief, we put on our packs and off we went. Eight hours later, we reached our camping spot. The good news was we hadn’t seen any bears.

Early the next morning, we ate breakfast and prepared for our trek back down the mountain. Everyone was in high spirits; we were going downhill and still no bears! That was about to change.

About 500 meters from our campsite, my son and I heard what we thought was other campers. Unfortunately, that wasn’t the case. It was a bear! I’m not talking about a 300-pound black bear, which would have been bad enough. This was a huge grizzly, and it was heading our way. The adults sprang into action and put the boys in the middle to make us look bigger and hopefully intimidate the grizzly. Thankfully, curiosity didn’t get the better of the bear and it turned around and left.

The bear training the scoutmaster gave us worked. He pulled everyone together to discuss what had happened. Silently, I reflected on what had just occurred, thankful for the valuable training the scoutmaster had given us at the start of our trip. I’m glad everyone paid attention and took the training seriously. Things could’ve turned out differently if they hadn’t.

In the Army, we train and train until we can do our tasks in our sleep. Then, when faced with a situation, we handle it without thinking. Safety, training and awareness are key components in preventing accidents. Stay alert, stay alive!

**WILDLIFE SAFETY TIPS**

**Bears**
Symbolic of the Alaska wilderness, both grizzly and black bears may be encountered in the backcountry. To keep these magnificent creatures wild and enhance your personal safety, keep the following in mind:

- Make noise while hiking to alert bears of your presence.
- Use bear-resistant food containers and store them 100 yards from cooking areas and tent sites.
• Be alert for bears and alter your activities to avoid them.

• Never run from a bear.

• Pepper spray can be carried as an added precaution. However, it is useful only as a last resort in the event of an emergency and should not be viewed as substitute for proper backcountry behavior.

Other Wildlife
Alaska is also home to sheep, caribou, wolves, foxes, bears, moose, eagles, ptarmigan and other wildlife you are very likely to encounter in the backcountry. Please keep Alaska's animals wild by following these guidelines when encountering wildlife:

• Do not feed or allow wildlife to obtain human foods.

• Maintain a minimum 300-yard distance from bears.

• Do not approach or follow wildlife. Maintain a minimum 25-yard distance from all other animals, dens and nests.

• If your presence alters an animal's behavior, you are too close.

Source: National Park Service
IT’S YOUR RUNWAY
CHIEF WARRANT OFFICER 3 JUDSON FARRER

There I was, looking down an 11,000-foot runway. As a freshly minted private pilot with 60 hours under my belt, I was working on my instrument rating. I had landed a job as a flight coordinator at a flight school at Phoenix Sky Harbor International Airport in Arizona. My new job gave me a modest discount toward my instrument rating, a chance to be around pilots all day and some free flight time.

The school had sent some older aircraft to Falcon Field, an airport in nearby Mesa, Ariz., for the interiors to be refurbished. When my boss asked if I could fly one of them back from Falcon Field, I jumped at the opportunity to get some free flight time. It was just a quick 10-minute hop to Falcon, but the return trip would take longer because of the volume of inbound airline traffic.

Up to this point, I had accumulated 20 hours toward my instrument rating flying out of Sky Harbor, which at the time was one of the busiest international airports in the nation. It was always a daunting task to get in and out because much of the time you would be the only small aircraft mixed in with airliners. The line for takeoff on a normal day consisted of 10-15 aircraft with large passenger jets in front of and behind you. Talking on the radio and navigating the labyrinth of taxiway at Sky Harbor intimidated all new pilots, especially this one.

The two of us took off from Sky Harbor in a Cessna 172 to pick up our aircraft. As expected, the flight to Falcon Field was quick and uneventful. For me, though, I was still reveling in the idea that I was getting paid to fly. We finished the paperwork and got the keys to the newly refurbished 172. My counterpart took off first and I followed a few minutes later. This would be an easy flight, I thought, just a right turn out and then a straight-in landing to runway 26R (this was when Sky Harbor had only two runways).

Following takeoff, I contacted approach for clearance into the Class B airspace and was immediately handed off to Sky Harbor tower. Traffic in the pattern meant I was following a 727 on a five-mile final with a 737 behind me. I looked to my left and saw another 737 on final to 26L with traffic in line behind it.

The plan was to land long and get off the runway at an exit close to my fixed base operations. As I was running my before-landing checks, tower called me to slow down by 10 knots on my approach to give more room for the now-landing 727. I was already in landing configuration, so I began “S” turns to bleed off more airspeed. Just as I began my first turn, tower called me back to now speed up for the 737 behind me. When the 727 exited the runway, tower called again to clear me to land. I increased the throttle and nosed the aircraft down, staying aware of my airspeed and knowing I would need to bleed it off to land.

When I crossed the numbers and began to flare the aircraft and touchdown, the tower called me back.

“Cessna 1234, you need to exit immediately at B9, there is a 737 behind on short final.”

Looking down the runway as I pulled the throttle all the way back, I saw exit B9 coming up quickly. As my tires touched down, I began my left turn at B9 with my feet firmly planted on the brakes at the same time. I could feel my body shift with the speed of the turn. When I applied more pressure on the brakes, it happened. The brakes locked up and the right tire blew out. Not yet off the runway, tower began calling me. The next thing I know, they called the 737 to go around. Tower still was trying to get me to move off the runway, but the Cessna wouldn’t budge.

At my request, tower called my FBO for a tow and I had to wait in my aircraft and watch airliners taxi by with the pilots giving me that look — “You rookie!” I caused two airliners to go-around, shut down the north runway, causing numerous passenger delays, and cost the airlines thousands of dollars in gas, all because of a simple mistake.

Lesson learned: I was cleared to land and it was my runway, but if I could not make the exit, I should have called and taken the next one. I still remember the airline pilots sticking their heads out the cockpit windows and glaring at me as they taxied by.
THE VACATION THAT ALMOST WENT SOUTH
SGT. 1ST CLASS CARLOS I. ALVELO
56th Multifunctional Medical Battalion
Joint Base Lewis-McChord, Wash.

As the transition to my next duty assignment at Joint Base Lewis-McChord, Wash., neared, I decided to take the family on a vacation to Orlando, Fla. We all had busy schedules at home and were excited to finally take a break. So, we packed our bags and headed down I-95 South to Walt Disney World.

I'd planned to start the 15-hour trip from Maryland to Orlando about 11 p.m. so I could avoid traffic and let the kids sleep. My wife and I agreed that I would take the first leg of the trip so she could sleep and then we'd switch so I could get some rest. As we left our home, we said a small prayer that the Lord would keep us safe as we drove.

About three hours into the trip, I pulled off I-95 somewhere in lower Virginia and stopped at a little gas station so I could use the restroom and refuel. I still felt good and alert as we continued our journey, thinking of the good time we were about to enjoy as a family. As the miles and time passed, though, I began to get a little tired. I tried to stay awake by using all the usual tricks like opening the driver's window, drinking coffee and energy drinks and turning up the radio. I figured that would help me stay focused.

At one point, my wife asked if I was tired, but I told her I was fine — although I was really feeling the effects of driving for the past seven hours. After a few more fuel and restroom breaks, I stubbornly stayed behind the wheel and ignored the warning signs that I should transfer driving duties to my wife. Somewhere in North Carolina, though, I got one more warning that it was time to switch.

In fact, it almost turned this trip of happiness and joy into pain and agony. The only thing I remember is the rumble strips on the road making a loud burring sound as I edged off the side. The noise woke me up, and I jerked the steering wheel back to the left. At that moment, my wife and kids woke up and asked what happened. I had fallen asleep while driving and put my family, as well as anyone else on the road, in danger. Devine intervention must have woken me at the right time because I was heading straight off the road.

We always promote safety in our units before the weekends, especially when Soldiers will be traveling long distances. But I completely did the opposite at that moment. I ignored the signs that I needed to switch drivers so I could rest. Immediately after that scary moment and pushing my heart back into place, my wife fired me from driving duty and took over.

We must continue to encourage our Soldiers and family members to be safe regardless the activity. Safety should never be taken lightly. We eventually went on to have a great time at Disney World, but one careless moment nearly caused this vacation to go south.
While home on R&R leave from Afghanistan, I ran into my old friend, Reed, who I hadn't seen in years. Our conversation turned toward aviation, and he told me he recently bought a powered parachute. Since I had never seen one in person, I suggested we head over to his place and check it out.

If you are unfamiliar with a powered parachute, it's basically a go-kart with a big fan on the back and a parachute overhead. Your feet work the parachute risers, so you simply push the pedals in the direction you want to turn. The throttle changes your altitude, and if the motor quits altogether, you simply float down to a hard landing. Sounds simple enough, right? If I can fly a multimillion-dollar Black Hawk, this thing should be no problem — or so I thought.

With a 10-minute briefing on the finer points of powered parachute piloting techniques, I found myself rumbling down the field behind Reed's house and launching skyward. This little craft was a pleasure to fly, and even though it was a little windy, I was having fun. I did a couple of patterns and then came in for a respectable landing. It was awesome! Reed came over and said, "Go ahead and take it out for a while."

I launched back off and headed toward my parents' house for the obligatory flyby. As I headed in that direction, I noticed my ground speed seemed a little fast, but I didn't think too much about it. After flying over my old neighborhood, I decided to continue on to Lake St. Clair to check out the boats. By now, the wind seemed a little gusty, but I figured this was normal for a lightweight, open-cockpit machine.

Lake St. Clair defines the border between the U.S. and Canada, just north of Detroit. As a popular boating destination, there are often big groups of watercraft rafted together. I spotted one of these groups on the Canadian side of the lake, so I headed over to have a look. With a direct tailwind, which seemed a little stronger than I remembered, I zipped across the water in no time.

Awaiting me was a flotilla of very cool looking boats loaded with people having a good time. Everyone was waving and I could see all the bathing suit-clad revelers enjoying the afternoon. After spending a little while observing, I decided it was getting windier and I should head back.

As I turned directly into the wind to make my way back across the lake, my groundspeed dropped to nearly zero. I was practically hovering, with a couple miles of water in front of me. During all my screwing around, I hadn't noticed the wind had continued to build. With a top speed of 20 mph, the powered parachute was unable to make any progress back across the lake and toward my friend's house.

As I sat there with the engine screaming and barely making any headway, it occurred to me that I had no idea how long a tank of gas would last me. So, with a great deal of shame, I headed back toward Canada to make a precautionary landing. A large field close to the shoreline was available, so I carefully set it down, turned off the engine and made the phone call I was dreading.

"Reed, I'm in Canada," I said. "I need you to come pick me up."

After a long while, Reed arrived with the trailer. We then loaded up the powered parachute and headed back. It took me a while to explain to the U.S. border agent how I found myself in Canada without ever clearing Canadian customs. Eventually, though, we made it back across the border.

Because I was having so much fun, I allowed the weather to sneak up on me. Although there were plenty of signs available, I didn't know enough about flying a powered parachute to recognize them. Once it became clear there was a problem, my ignorance of the machine's fuel endurance left me with few options.

If you are going to try out a new activity, it's important to take the time to learn as much about it as possible before you start. While you are still learning, be especially cautious of hazards and distractions. Until you build a foundation of experience, you may not have the skills and ability to recognize and correct a problem until it's too late.
GOOD INTENTIONS DON’T GUARANTEE GOOD OUTCOMES
CHIEF WARRANT OFFICER 4 GREGORY GUY
1-158 ARB
AH64D IP/BN ASO

It was a sunny summer day at Fort Carson, Colo. I had been battle rostered for gunnery training with one of our newest staff officers who was undergoing pilot in command training. We conducted the preliminary preflight activities, including receiving our weather brief at base ops. The pressure altitude was in excess of 6,000 feet and the temps were in the mid-80s. The biggest difference from a weather perspective was that the winds were coming from the opposite direction compared to the day before. This would later have significance with respect to a near mishap.

We tweaked the performance planning card numbers a bit from the previous day’s calculations and headed out to preflight our AH-64D. The flight down to the forward arming and refueling point was uneventful. I noticed the winds were stronger out of the north than had been forecast and was glad we would be making our approach and landing at the FARP with a headwind component.

Because of ongoing range fires, the unit was conducting rocket engagements at one range and 30 mm and Hellfire engagements at another. We took on some fuel and received our allotment of rockets, completed the necessary aircraft checklists and prepared for departure.

The PC in training wanted to make the takeoff and flight to the range where we would be doing the rocket engagements. I briefed him on some of the common techniques for taking off in a heavy aircraft in dusty conditions. We departed and got ourselves established on the route to the range. I noticed that the winds had increased in strength even more so from our original departure from Butts Army Airfield, Colo. Our arrival plan was to land the aircraft at the designated aircraft holding area and wait for our turn in the chute to shoot the tables.

As we neared the landing zone, the backseater called for the before-landing check. We completed the check and a few moments later, the backseater started the approach. I noticed right off the bat that we were using a fair degree more power than usual, no doubt because of the tailwind condition. Also, I noticed that the expected dust cloud was building earlier than anticipated and that the transverse flow effect was more pronounced. I could see that this situation was rapidly getting less than ideal.

I called for a go-around, and this is where the real trouble began. Because of the nature of the terrain (it was falling away from us), I expected the backseater to do an airspeed over altitude go-around, which would have required a minimal application of power. Instead, he yanked in an armload of collective and attempted to do a go-around with a flight path that resembled a “V.” The aircraft Nr immediately started to deteriorate and “Betty” announced it. Simultaneously, we started sinking toward terra firma. To make matters worse, the aircraft started to yaw. I announced, “I have the controls,” and by this time, we were completely engulfed in the dust cloud that had been developing since our initial approach.

I noticed immediately that the right pedal was almost to the stop, which took me by surprise and added to the overall confusion of not being able to see the ground nor blue sky around us. I lowered the collective in an attempt to regain Nr and nudged the cyclic forward to get some airspeed. I got established on a flight path unseen due to all the dust, hoping that we could fly out of this without hitting the ground. It seemed like it took forever, but we gradually gained airspeed and the Nr slowly inched up with Betty still announcing low rotor. I managed to catch a glimpse of an area that was quasi VMC to my right front and maneuvered the aircraft in that direction.

We managed to get the engulfing dust cloud aft of the weapons wing and I realized that we were only a few feet above the ground. If it were not for the fact that the terrain was falling away with respect to our flight path, the aircraft would have struck the ground.

We managed to get the aircraft through ETL, got the rotor RPM in the normal range, and climbed away unscathed. We re-established our approach and this time landed with an aircraft not pointing downrange.
Second time around, we did our approach and landing with an aircraft under control, minus a dust cloud obscuring our forward vision, and nobody's heart skipped a beat (or beats).

After the shutdown, I asked my guy why he attempted to do the go-around in the manner in which he did. He said that he only did a few in training and without much thought, they always tended to be more altitude over airspeed go-arounds with greater than takeoff power applications. I also queried him as to why he had the right pedal practically to the stop. His response was that it was necessary to keep the nose pointed in the general flight path during the initial part of the go-around. I realized that not only had we been in a partial settling with power condition, but also in a weather-cocked loss of tail rotor effectiveness state as well. I explained the irony that we probably had dodged an overtorque condition due to the fact that the aircraft was environmentally limited versus structurally limited in terms of max available power.

So, how could things have been better? For starters, given mountain weather forecasts and observations, it's always a good idea to pour over the data with extra detail and care. If the winds are forecast to be 10 knots sustained, expect them to be 20 knots instead. If they are calling for light mountain wave turbulence, expect moderate or greater turbulence instead.

Additionally, it's always a good idea to have very thorough crew briefs. Even taking into account the low-time-experience pilot, I assumed that an airspeed-over-altitude go-around was the obvious decision. It's generally not a good idea to assume much while conducting aviation operations.

Finally, sometimes we, as aviators, allow set procedures and protocol to lead us down paths where we would rather not go. One has to keep in the back of their mind that following an established procedure may not be prudent 100 percent of the time. Landing into the wind and subsequently making a pedal turn while accepting a certain level of brownout was the better decision the second time around.
ACCIDENT BRIEFS

AVIATION

CH-47D
Class C
The aircraft experienced failure of the right rear wheel during post-landing taxi to parking.

UH-60L
Class C
The crew was initiating engine start following refuel when they identified a No. 2 engine TGT exceedance. The crew initiated restart and cool-down procedures to move aircraft to home station. Engine replacement was required.

C-12D
Class C
The left side of the aircraft’s tail stabilator was damaged by a bird strike.

GROUND

AMV
Class A
Two Soldiers were killed and two others injured when the HMMWV they were riding in overturned.

PERSONNEL INJURY
Class A
A Department of the Army Civilian was killed while performing engine maintenance on an FMTV. The vehicle’s cab was raised so he could access the engine. While working on it, the cab dropped, pinning the DAC to the vehicle.

A Soldier died after being shot in the head.

A Soldier drowned while swimming on vacation. A bystander saw the Soldier struggling in the ocean and called for help.

A Soldier drowned while crossing a canal during a security mission.

DRIVING

PMV-4
Class A
A Soldier died when his vehicle struck an embankment, went airborne and rolled numerous times after contacting the ground.

PMV-2
Class A
A Soldier and his civilian female passenger were killed when he lost control of his motorcycle and left the roadway. Local authorities suspect speed as contributing factor. The Soldier had met the state and command licensing and training requirements and was wearing all PPE at the time of the accident.

A Soldier died when his motorcycle ran off the road in a curve. The motorcycle hit some railroad tracks, flipped into the air and struck the counterweight for the railroad crossing bar, sending the Soldier across the road and into the adjacent field. He was wearing all PPE.

A Soldier died when he struck a curb at a high rate of speed and was thrown from his bike, landing in a stream.
A Soldier was killed when he collided with another rider on an interstate ramp and was thrown off the overpass and down to the ground 30 feet below.

A Soldier was killed when he struck a vehicle while attempting to pass it, slid into oncoming traffic and was struck by another motorcycle. The Soldier was wearing a helmet.
FROM THE CSM
NO SEASON FOR RISK

Autumn offers something for everyone. The coming and going of Labor Day means cooler weather, a return to regular schedules with kids back to school, and most of all, the start of football season (my favorite time of year!). Many Soldiers eagerly await the start of hunting season, while others are ready to start the countdown to time off around the holidays. What we can't look forward to, however, is a "slow" season for safety — just because the summer is over doesn’t mean we can fall into complacency.

Soldiers at installations across the southern and western United States enjoy nice weather far longer than those in other parts of the country, and accidents are a good reflection of that. Between Labor Day and Dec. 1 last year, we lost 12 Soldiers on motorcycles; seven were NCOs. There’s no doubt about it, many, many Soldiers will continue riding until the weather forces them off their bikes, and that may not be for several more months. As leaders, we can’t let down our guard on the continuing issue of indiscipline on motorcycles. We must regularly check our Soldiers and ourselves to ensure every ride begins and ends safely.

Autumn and winter are the Army’s high seasons for negligent discharges. Three Soldiers fatally shot themselves between September and December 2012, all under the influence of alcohol and at least two with guests in their homes. In many ways, young Soldiers are no different than college kids; they’re going to congregate together off duty, and there’s going to be alcohol involved more often than not. But Soldiers might feel a little more invincible than the average university student, given our profession and training with firearms. It’s leaders who have to bring them back to earth and show them even superheroes aren’t immune to bullets, especially when you’re cutting up with friends.

Speaking of alcohol, it’s undeniable that some Soldiers try to “enhance” all their off-duty activities with it. In fact, fixtures of autumn like football games and tailgate parties seem to invite alcohol use. And there’s nothing wrong with that, as long as our of-age Soldiers drink responsibly. Frank discussions about the risks of drinking and driving and even drinking and walking should be part of all our weekend safety briefs. And, leaders should be walking the talk by setting the standard and being the right example to follow. It’s not about you anymore — what you do today influences your Soldiers’ behavior more than you know.

’Tis the season for accidents, every day of the year. A turn of the calendar won’t keep our Soldiers safe, but we can through engaged leadership and a focus on training, discipline and standards around the clock. The USACR/Safety Center is ready to help with the annual Army Safe Autumn Campaign, available at https://safety.army.mil. Check it out and let me know what you think and how we can better help you keep up the good fight. Most of all, enjoy this fantastic season while it lasts, but always play it safe!

Army Safe is Army Strong!

RICK STIDLEY
Command Sergeant Major
U.S. Army Combat Readiness/Safety Center
‘BUZZ’ KILL
NAME WITHHELD BY REQUEST

My friends and I were pumped for the upcoming bow-hunting season. For the past 11 years, Mike, Scott and I faithfully got together to hunt on a 600-plus-acre farm we signed a lease to use. For us, the property is sort of a retreat from the everyday grind because it’s very secluded and has few amenities. Therefore, the wife and kids have no desire to go. This particular trip was unique, with many factors that nearly culminated in a tragic outcome.

For this trip, we decided to use Mike’s camper. The three of us planned to meet after work in Carlinville, a small town about 15 miles north of the property. As usual, we’d eat some world famous Taylor’s chili before heading to the farm to set up our campsite. After we set up camp, it was time for the festivities began. As it grew later, though, we knew our 3:30 a.m. wakeup would come quickly, so we decided to call it a night.

Sure enough, 3:30 a.m. rolled around and I was the first one up and dressed. I made coffee and took pleasure in waking up my foggy-headed cohorts. I stayed out of the heavy grog the night before because I didn’t want to be impaired or fall asleep in my stand as I had done numerous times in the past. It was cool and drizzling that morning — an unexpected twist, but nowhere close to a showstopper — so everyone dressed accordingly. Once everyone was dressed, we headed off for our first big hunt of the season.

It was an unwritten rule that when we stayed in the camper, we’d hunt the back quarter of the property. This section happens to be the most inaccessible by vehicle because it has steep ravines and two creeks — which may or may not be raging — running through it. Before we left, we discussed where each of us would hunt and when and where we’d rendezvous. We also talked about what protocol we’d follow if a deer was taken and how we’d link up to help each other out if someone bagged the big one.

By 4:15 a.m., we had split up and were cautiously navigating our way through the pitch-black timber. To get to our stands, we used GPS routes and reflective tape on certain trees, spaced about every 100 meters. The tape was visible by the small LED headlamps we all wore. Lastly, we relied on our strong familiarization with the land we’d hunted on for the past 11 years.

I got to my stand at about 4:45 a.m. The hike in was challenging, but as the season progressed, I knew it would become easier. I secured my gear to the tag line and I tied off my retractable fall protection (all of our stands had retractable fall protection installed to arrest our descent should we slip) before starting the 21-foot climb to my humble — yet comfortable — platform. About 10 a.m., I realized I’d been skunked, so I decided it was time to head back down for the rendezvous.

When I reached the rendezvous point, Scott was the only one I could see from a distance. By 10:30 a.m., Scott and I knew something must have happened to Mike because he was always the first one out of the timber and at the rendezvous point. We headed off in the direction of Mike’s stand and before we reached it, found a flagged arrow hanging from a branch, stuck to the side of the tree. These arrows work great to let someone know which direction you went when you want someone to find you.

Our search for Mike took us into a part of the property we seldom hunted because of its inaccessibility. Eventually, we found Mike. He was carrying the first deer of the season, and it was no trophy. It probably didn’t weigh 50 pounds field dressed. Mike had tied the deer’s hoofs together and was carrying it like a large duffle bag.

As we made our way back to the camper, Scott spotted an old stand we’d forgotten about. He then proceeded to climb the tree without spikes in it or gaffs on. Mike and I weren’t crazy about this idea, especially since the stand was nearly 20 feet off the ground, but Scott easily made the climb.

While holding on to a dead branch, Scott told us how he marks every stand under the seat. As he lifted the seat, he saw a hornet nest under it. We watched helplessly as Scott tried to climb down the tree, hornets swarming all over him. Suddenly, Scott’s handhold broke and the worst imaginable scenario happened — he fell 17 feet and almost landed on his grounded gear!

Scott suffered a fractured left ankle, broken collarbone, dislocated jaw and concussion. Thank God the timber floor was soft or his injuries could have been even worse. Extracting Scott from the woods is a story for another time, but the bottom line is we could have prevented the near-tragic accident.
At work (all three of us are pipefitters who work at high elevations on iron at powerhouses with very little footing), we always wear fall protection. All of our hunting stands, with the exception of this old one, are equipped with retractable fall protection. Also, we use lanyards around the trees. We’ll tie ourselves to the stands once we’re up there so we won’t roll out should we fall asleep. (I’m notorious for this.)

We stopped hunting this particular area a few years earlier for a couple of reasons — one being that if someone was hurt, it would be extremely difficult to get them to safety. The area is surrounded by several ravines with steep drop-offs, which under the cover of darkness, could kill an unsuspecting hunter.

The best course of action would have been to stay away from the area. Mike and I shouldn’t have let Scott climb that tree without fall protection. Although he was wearing a harness, there just wasn’t a retractable installed for him to hook onto. We could’ve hooked a lanyard up there for Scott to take the stand down. Simply put, if anyone of us had implemented the “normal” safety precautions used on every hunt, Scott could have avoided this accident that cost him nearly four months of his life. Risk management was present, just not in use.
You know that moment when someone looks back on their life and wishes they'd chosen a different path? For me, this was that moment. Just envision a miniature angel standing on one shoulder and a devil on the other. This time, the devil won.

My boyfriend was interested in buying his buddy's all-terrain vehicle, but first he wanted to take it for a spin to see how it handled. After finding the perfect location with a mixture of small hills and flat ground near a riverbed, they unloaded the ATV off the trailer. No one thought to bring a helmet, which should have been the first red flag. But since we were already there and my boyfriend was eager to ride, he didn't think it was a big deal. He climbed on the ATV, gave it some juice and headed out for his test ride.

As I watched him slowly navigate the terrain, I could tell he was starting to get the hang of it. (Did I mention this was the first time he'd ever been on an ATV?) While impressed that he was handling this piece of machinery so skillfully, I was still nervous. After several back-and-forth trial runs, his confidence — along with his speed — began to soar. He spent nearly an hour speeding around the makeshift raceway before boredom set in.

To liven up things a bit, he insisted I jump on the back so we could share the thrill of the ride. Although a little concerned about not having any personal protective equipment, I threw caution to the wind and hopped on. It wasn't long before we were flying up and down the riverbank, whooping it up at the top of our lungs. At one point, he steered the ATV toward a 12-foot-high dirt mound. I held on tight as he accelerated straight up the side.

Halfway up, I felt the ATV start to slow. The engine sputtered twice and then died. As the momentum stopped, the ATV began to roll backward. The front of the ATV reared up, throwing us both off the back. I hit the dirt first, followed by my boyfriend. He was able to roll out of the way of the tumbling ATV. I wasn't so lucky.

When I'd hit the ground, I banged my head hard enough to see stars. Disoriented, I wasn't able to move before the ATV landed on top of me, the handlebar painfully digging into my hip. I remember laying on the ground and staring up at the sky, thinking I had just dodged a potentially life-changing accident.

I made a bad choice that day by not wearing PPE. I should have insisted we go back and get it before anyone rode the ATV. Unfortunately, I never said anything and was forced to learn a painful lesson at the school of hard knocks.

Most of us would probably confess to doing some pretty stupid things when we were younger. If we're lucky, we chalk it up as a learning experience and pledge to never make the same mistake again. That's what I did … but I almost didn't get that chance.

FYI
ATV Safety Institute's Golden Rules

• Always wear a Department of Transportation-compliant helmet, goggles, long sleeves, long pants, over-the-ankle boots and gloves.

• Never ride on paved roads except to cross when done safely and permitted by law; another vehicle could hit you. ATVs are designed to be operated off highway.

• Never ride under the influence of alcohol or drugs.

• Never carry a passenger on a single-rider ATV, and no more than one passenger on an ATV specifically designed for two people.

• Ride an ATV that's right for your age.

• Supervise riders younger than 16; ATVs are not toys.
• Ride only on designated trails and at a safe speed.

• Take a hands-on ATV RiderCourse and the free online E-Course. Visit ATVsafety.org or call 1-800-887-2887 to find the ATV RiderCourse nearest you.
There I was, a brand new warrant officer Black Hawk pilot flying combat missions in Iraq, paired with one of the more experienced pilots in command in our company. Our mission was to fly the 101st Airborne Division’s assistant division commander for operations from Combat Operating Base Speicher to Forward Operating Base Warhorse for a meeting. As we flew past one of the smaller FOBs near Warhorse, we received a frantic call for help over the common frequency.

The message was clear: A critically wounded Soldier at the FOB needed immediate evacuation or he would die. We circled back around to the FOB and discussed the situation with the general. He gave us the go-ahead to land, assess the situation and determine whether we could help.

We landed, made contact with the ground unit and learned the Soldier was near their motor pool, bleeding out. Soldiers tending to the injured Soldier were afraid he’d die soon, so they requested we reposition to the motor pool area and assured us there was ample room to land. We asked if the medevac had been called and were told it may or may not be on the way, but if we delayed, the Soldier would die.

We attempted to reposition the aircraft while Chalk 2 remained at the landing pad. We quickly realized that landing in the motor pool wasn’t feasible because there were numerous wires and other hazards. We returned to the landing pad and informed the ground unit that the only option was to bring the casualty to us.

As they were moving him to our location, we got further details about the accident from other Soldiers. They said they were rearranging the shipping containers in their motor pool with the help of some sort of crane. The injured Soldier, a 19-year-old private, was tasked with attaching chains, which were hanging from the crane, to the top of the containers. Instead of climbing down from the container after hooking it up, he decided it would be easier to ride along on top of it to the destination.

As the load was lifted, one of the chains snapped and struck the Soldier in the throat with enough force to literally rip it out. None of us could believe what we heard. It was then that we saw the litter being carried out of the front gate to the landing pad. It looked like someone had taken a bucket of blood and threw it on the Soldier they were carrying. The Soldiers were doing their best to staunch the flow, but the blood continued to pump out of this young Soldier and onto the ground.

As they got closer to the pad, we received a radio call that the medevac had arrived with a doctor and that we needed to move out of their way. There was no time to explain to the ground guys, but we had to take off. I will never forget the expressions on their faces as we left. They thought we were leaving without him and didn’t yet realize the medevac was on short final. That private died on the way to the hospital, the victim of complacency. I do not know if someone was punished for the accident, but the war went on and so did we.

Fast forward a year and a half. I was now an experienced CW2 PC in Afghanistan. I was walking out of our company office at Bagram Airbase, finally done with a long day. Across the road from our office was a line of shipping containers with all of our equipment, with Soldiers preparing to move them with chains hanging off a crane. I noticed a Soldier had just hooked up the chains and stepped onto the adjacent container instead of climbing down. A chill went up my spine. I could not believe this was about to happen again!

I dropped my flight gear and ran toward the crane waving my arms and yelling for them to stop. They shut off the equipment and I told the Soldier to climb down and made them stand there as I told them what I had seen in Iraq. The Soldier who was up on top visibly paled as I described the young private’s fate. From then on, they made sure no one was up top when weight was on the chains and moved the containers without incident.

I don’t know how many Soldiers are killed in the name of expediency or convenience, but I do know one who was and one who wasn’t. Which will you be?
CONVOY CLOSE CALL
CAPT. MICHAEL HAGY
Fort Sam Houston Dental Activity
Fort Sam Houston, Texas

It was spring 2007, and my unit was headed to the field. My driver was a new private who'd just received her military driver’s license. Our assigned vehicle for this particular field problem was the Chemical Biological Protective Shelter, or CBPS. Additionally, we'd be pulling a trailer with a generator attached to it. The weather wasn't optimal as we postured to head out; it was drizzling at the start of the three-hour convoy. The local area was under a flash flood warning and during our convoy brief, we were warned that our route would change if conditions deteriorated. Once the brief was complete, we were on our way.

At about the two-hour mark, the rain started to pour and range control closed several low water crossings along our planned route. The convoy commander selected an alternate unimproved road with loose gravel along the center. The sides of the road were muddy with loose soil. The water was about 4-6 inches deep on the road, and my driver was sliding all over. She tried to maneuver the CBPS as if she was on a standard roadway, staying on the right side. Adamantly, I told her to stay in the center of the road. She obliged and everything was going smoothly.

The convoy started to slow down as we approached a hill. Several of the other vehicles had difficulty getting up the slick roadway, but the entire convoy eventually made it to the top. Then we started down the 5-percent-grade decline, which wasn't a problem. The hazard turned out to be the sides of the road, which were about 6 inches lower than the center.

My driver started to slide to the right, and I told her to pull back to the center slowly. She complied and we continue for another 50 feet when she drifted to the right side again. This time, though, she quickly jerked the wheel, trying to get back to the center. The vehicle made it back to the center, but the generator trailer did not. The trailer stayed on the right, pulling the backend of the CBPS to the side of the road.

My driver panicked and slammed on the breaks. I shouted, "No!" but it was too late. The trailer pushed the back of the vehicle forward and the front end went toward the left side of the road. Before I knew what was going on, I felt the vehicle slide sideways down the road. I managed to yell, “Rollover,” before the vehicle tipped onto its right side and slid about 50 feet along the wet, muddy road.

My driver was frantic because she thought she killed me. I hit my head and was dazed briefly, but by the time the rest of the convoy stopped and came to our rescue, I was alert and talking. We were both buckled in and hanging in our seats when the recover team got us out. Fortunately, we weren't hurt.

The accident turned out to be a Class D with less than $5,000 damage to the vehicle. We were lucky that day. An inexperienced driver and poor visibility and road conditions due to inclement weather were factors contributing to our accident that could’ve been scrutinized better. Every time I get in a military vehicle, I think back to that accident and I always take precautions to ensure something like that doesn’t happen again.

FYI
Historically, operating or riding in a military vehicle is the leading cause of on-duty serious injuries. Leaders, Soldiers and safety professionals must continue to preserve and protect each Soldier by enforcing driver training program and risk management methodology across the Army. Check out the Driver's Training Toolbox, a web-based program and repository of drivers training resources for leaders, commanders, master drivers and instructors, at https://safety.army.mil/drivertrainingtoolbox/Home/tabid/1869/Default.aspx (AKO login required) for more information.
Just like long checkout lines at the commissary on payday, the permanent change of station move is a certainty for service members and their families. While many would prefer to let professionals handle the heavy lifting — on Uncle Sam's dime, no less — a few rugged individuals choose to tackle this duty themselves, putting those extra PCS bucks in the bank.

For those unfamiliar with the PCS move, here's how it works. Normally, the travel office sends a moving company to your house at the government's expense to pack and move all your earthly belongings across the country, delivering them to your new residence safe and sound (if you're lucky). In a do-it-yourself (DITY) move, you rent the truck, do the packing, driving and unpacking, take all the responsibility and get paid for your efforts.

However, this cannot be thought of as a get-rich-quick scheme. Yes, there are a few bucks to be made if done correctly. And why not, right? It's just a U-Haul; surely you can drive one of those. Maybe you'll even stop at a few fun places on the way — call it a family vacation. This type of thinking makes an old DITY veteran like me cringe. In reality, the DITY move is not for the faint of heart.

It's been more than a decade since my last DITY move, but the memories still send a chill down my spine. What was I thinking? How could I have been that foolish? How did I survive? These are the thoughts of much older, wiser and safer man. Here's my story:

It was shaping up to be a gorgeous summer, and I had 1,780 miles between my next assignment and me. On paper, the math looked good. With the truck I'd reserved, the per diem, seven travel days and my tent in the back of the vehicle, I could clear almost $800 for a week of driving.

What didn't show up in my calculations were the physical demands of the move before ever pulling away from the curb. Between averaging four hours of sleep a night during the last week of outprocessing, packing up the whole house and loading the truck, I was exhausted. That last night, I stayed up cleaning and fixing the house so I could clear base housing the next morning. Oh, and there was also the 2 a.m. encounter with the huge roof rat living in the dumpster enclosure. After a short nap on my friend's couch, it was finally time to hit the road. The clock was already ticking on my travel days, so there was no time to waste.

Three hours into my drive, I was at 7,000 feet elevation and starting down the first big grade in a mountain range, barely able to keep my eyes open. While I had driven this road a few times before, I'd never done it in a 24,000-pound-gross-vehicle-weight truck loaded to the brim. I'm still not sure how I made it down that hill, but dumb luck prevailed and I was able to reach a campsite by about 9 p.m.

After a fitful night's sleep, the next day wasn't much better than the first. A line of thunderstorms made the road impossible to see through the windows. Then I came to a detour that took me off the interstate and onto a small two-lane highway. So instead of passing the Rocky Mountains on the interstate, I was now playing chicken with 18-wheelers that really didn't belong on that road. That's the one part of the trip that still makes me shiver.

I could go on and on with the chilling details, but I will spare you (and me) that experience. I eventually made it to my destination on time, clearing about $400 for the trip. But the extra cash didn't pay for the physical stress or the very real dangers that came with it. While my experience is not unique, nor is it indicative of how every DITY move will go, I hope you glean a little bit of wisdom from it. Ask yourself the following questions when thinking about doing a DITY move:

- Can I safely drive the moving truck? Can my spouse?
- How long will it take to pack the house?
- Can I get help to load the truck?
• Do I have enough time to do everything else and a DITY move?

• Where can I get a good night’s sleep before I get on the road?

• Is the extra money worth the added stress during this already taxing time?

If a DITY move is in your future, remember to add a layer of safety to your thought process. Take your time, don't hurt yourself or others, know your limits and make smart choices for goodness sake. The money you think you're saving isn't worth your life.
THE SMALLEST DETAIL
CHIEF WARRANT OFFICER 3 KEVIN HAYS

When I began flying Chinooks, a CW4 told me, “There is no such thing as a perfect flight.” I understood what he meant, especially after I got some experience under my belt with multiple deployments. Once in the air, things can change — some for the good and some for the bad. But that’s where good planning comes into play. The smallest detail can change the outcome of a flight, which is what happened to me on the ninth month of a deployment in Iraq.

Unlike most close-call stories, my accident was documented as human failure. Trust me, the words human failure hurt when seen on an accident report. It was my fourth deployment, and my company had sliced four Chinooks to support the air assault battalion for our 15-month rotation in Balad, Iraq. I was one of the assigned flight leads.

Overall, we were averaging an assault every four days and developed a solid relationship with our UH-60 and AH-64 crews, which built confidence amongst our team. This particular mission was developed, planned and briefed by the timelines set in our standard operating procedure, but a dust storm set in and delayed us. The mission would not be executed for another 72 hours while we waited for the dust storm to clear the area of operations.

During the delay, we decided to review our tactics, techniques and procedures and request a visit from the Special Operations Air Regiment to see if we were making any unnecessary risks with our Chinooks. After the assistance visit, it was determined that a change should be made in the way we deployed our Chinooks to certain landing zones. This new TTP would affect my assigned landing zone for this mission.

Eventually, the weather lifted. It was a clear night with about 25 percent illumination, and I, like the others, was ready to get on with this mission. I briefed the execution portion of the air mission brief, including my changes for the assigned landing zone, which led to a “go” decision by the command. This mission, due to its multiple aircraft and terrain, called for precise course guidance, timing and spacing.

My LZ was located to the far left with Chalk 2’s LZ, which was to my right. Each member of the flight had assigned headings off the release point to their LZ. With the change of the TTP I briefed, my LZ landing point would be moved 350 meters from the original. This change, even though minor in distance, would affect Chalk 2, so I briefed that I would remain on the original heading until deconflicted and then proceed to the new LZ.

After reviewing this mission for three days, I knew the LZ card by heart and understood the repositioned LZ was in an open field less than 400 meters away. Everything was going as planned with regard to time, coordination and communication.

The RP was hit within 45 seconds of the planned time. I had deconflicted with Chalk 2 and was inbound to my LZ with 33 troops and a supply pallet onboard. We identified the area of the old LZ and proceeded to the updated LZ, which was our open field. After our forward wheels made contact with the ground, it happened — we went into a trench deep enough to shear our right-forward landing gear and tear off our belly radio antennas. Fortunately, no one was hurt and the bird maintained level even without a landing gear due to the position of the trench as we rested on it. We off-loaded, assessed the aircraft, made contact, returned to base and landed on a stack of warehouse pallets back at home station.

Then it was investigation time.

Could this have been avoided? Maybe I should have picked a center mass grid for the LZ and requested updated imagery on the field instead of going off the older one. Would the imagery have shown that trench? We will never know, but the point is I had the time to at least try. When it comes to planning, time is critical during combat operations. Sometimes, though, due to repetition, we develop blinders and miss the little things.

We all know there is no such thing as a perfect flight, but take nothing for granted in this world we call aviation. When the grind hits — and it will — reinforce that planning stage and ensure your team has the best product before you walk out that door because the smallest details can have the biggest results.
EYE ON THE BALL
BONARA TAN
U.S. Army Corps of Engineers
Eugene, Ore.

Dumbfounded, I stood on the racquetball court, trying to stop the blood flowing down my cheek. I'd just been hit in the eye with a ball and wondered how in the heck it happened. I had eyewear on, so why wasn't I protected? It turns out I was the stupid one. Instead of wearing approved racquetball safety glasses/goggles, I opted to wear my prescription glasses. I assumed they'd suffice. Besides, it was supposed to be a quick game with three experienced players. Little did I know that I'd pay the price for my assumption.

It was my serve and I gave it everything I had. I thought the serve was short, so I turned my head right to announce it. Apparently, I wasn't loud enough because one of my opponents swung his racquet with full force at the ball. As I turned my head, I saw the tiny blue ball zooming toward me. I tried to duck, but I lost my footing and fell backward as the ball skimmed my left eye with enough force to pop out my eyeglasses lens. The unstrapped eyewear flew off my face and onto the floor.

I heard pieces of glass scattering everywhere. “Crap,” I silently said to myself. “These are my only pair of glasses — and an expensive pair at that!” I wondered how I was going to drive home without my glasses because, at the time, I was almost legally blind with 20/200 vision. I was pretty upset about my predicament.

As I gathered my thoughts and blindly searched for my glasses, I felt warm streams of something running down my face. “Don’t cry, wuss,” I thought. But after I wiped my cheek and realized I was bleeding, I blacked out. The lens had cut me just millimeters below my eyebrow.

My stupidity got me five stitches and a black eye. The most painful aspect of the incident, though, was the $300 I had to shell out for a new pair of glasses. The jokes and ribbing from my friends and family weren't fun either. It's a lesson I won't soon forget.

My advice to anyone that’s ready to step onto the racquetball court is simple: Always wear approved racquetball safety glasses/goggles! Also, when playing, try bringing your racquet up to your face (about eight inches) and look through the strings. Watch the ball throughout its entire path, from your racquet to the front wall. Try not to completely turn your whole body around, but just enough for a visual, until the ball hits your opponent’s racquet. Once they hit it, bring down the racquet. This may sound like an odd technique, but believe me, it's a much better than a trip to the emergency room.

Personal protective equipment serves a purpose and isn't meant to be inconvenient. Don't be a schmuck. Wear the proper PPE. You'll be glad you did!

DID YOU KNOW?
BE A LEADER
SGT. TYWANDIA KING
Jacksonville, Fla.

While riding to lunch with a couple of friends, one of them said, “Hey, did y’all hear what happened to Jodie? She was killed in a car wreck.” I was shocked. Jodie and I had just made plans on Facebook to meet up before she deployed. I wondered how this could have happened. Then another friend said, “You know she was never a good driver.”

Does this sound familiar? Do you know someone who is complacent, acts carelessly, thinks they know it all or just doesn’t care about anyone but himself or herself? What did you do to correct this behavior? Oftentimes we do nothing because we don’t think it’s our problem. But you’re wrong; it is your problem.

Those Soldiers who are dying due to distracted driving, speeding or driving under the influence are our battle buddies, family members, peers and loved ones. We sometimes choose to overlook their carelessness when they are with us. But when you get that preliminary loss report, it’s too late to intervene. If you knew your buddy was in danger, why didn’t you say something?

We do the right thing and watch our battle buddy’s back when deployed, so why not do the same when we go out to that bar or party? Yes, you may sometimes feel like a downer for being the voice of reason, but aren’t your friends’ lives worth it? All you have to do is be proactive. If you plan to drink, have a designated driver. If your friends are drinking, offer to be their sober driver. While you are at it, go ahead and put your cellphone in the glove box until you get to your destination. You can respond to that call or text when you arrive safely.

As a Soldier, you are important to the Army. As a person, you are important to those who love and care for you. Keep that in mind when you’re tempted to do the wrong thing because there are no do-overs. If you die in a careless accident, your family suffers and your friends live with regrets. Make the right choices and continue the mission. No drink, text message or other distraction is worth your life.

We are losing too many Soldiers to careless acts. We have to protect one another. We are the first line of defense. It’s time to be leaders in every aspect of our lives.
WEATHER SURPRISE
CHIEF WARRANT OFFICER 3 KEVIN AIKENS

In March 2003, just four months out of flight school, I found myself deployed to Iraq. For the most part, progression was uneventful, except for those dust landings at night under night vision goggles. There was a lot to learn and a short period of time to learn it.

About halfway through my tour, my pilot in command and myself, a pilot at the time, were tasked to be flight lead for a five-ship mission. We had to escort Ambassador Paul Bremer from Baghdad to Irbil for an important conference. Irbil is located in northern Iraq, which mostly consists of mountainous terrain.

Before the crews launched our flight, we received our weather briefing, which forecasted clear blue skies the entire flight. As we neared Irbil, it started to snow and sleet, and visibility decreased to about one mile and then to about one-half mile with fog. Looking at the Doppler/GPS, we were about three miles from our destination. As we approached the landing zone, weather and visibility began to worsen and we, as a crew, decided to reduce our airspeed and announce the speed reduction to the other crews.

I was on the controls at the time, and before I knew it, we were instrument meteorological conditions. I announced to my crew, “I am IMC at this time, with no reference to the ground.” My PC still had reference to the ground, so he took the controls. It was only a minute or two later until the PC also lost reference to the ground.

Looking out of my window, I could see the mountains, which were about 20 feet away from my right door, and I announced it to the crew. At about the same time, my crew chief also announced mountains. The PC made a conscious decision to climb to avoid the mountains.

We climbed almost straight up to about 10,000 feet and cleared all obstacles, but, since there was snow, we turned on our anti-ice and deice equipment, only to find out that the blade deice was inoperable. The PC was aware of the blade deice being inoperable, but we didn’t anticipate snow and ice. We were able to contact Kirkuk control for radar vectors, which safely brought us into the airfield. After we went IMC, the other crews were able to remain VMC, and they returned to Kirkuk airfield as well.

After landing, we refueled, shut down, received a new weather brief and waited until the weather cleared before returning to Irbil. Flying that particular mission was a great learning lesson from me, an experience that I revert back to whenever I fly any mission or find myself in a bad weather situation.

On another mission two years later in Afghanistan, I found myself on a flight with the same unit, and, believe it or not, the same PC. We had a two-ship mission from Bagram to Forward Operating Base Orgun-E to deliver troops and then return. Our weather briefing stated the weather was supposed to be clear skies and legal visibility our entire route of flight. About 30 minutes after takeoff, we hit a wall of dust with about a quarter-mile visibility. At that moment, we really had to weigh our options. Did we want to push on a bit farther and try to skirt around the dust, or do we turn around and bed down for the night in Orgun-E because duty day was going to be an issue for us as well?

I was very stern on the decision to turn around and stay at Orgun-E for the night. The PC, who was also the air mission commander of the flight, wanted to keep pushing on to Bagram, or at least a bit farther to see if the weather would clear up. The escort crew was pretty adamant about turning around as well because they, too, were uncomfortable with the weather situation.

After staying at Orgun-E for the night, we woke up the next morning to find that the weather had blown over, so we launched back to Bagram. After returning to Bagram, we learned that another crew had launched to Orgun-E the day prior on a different mission. Despite the weather conditions, four ships took off and got stuck in the middle of the desert. They had to land due to limited visibility and wait for a quick reaction force team to drive out to them and establish a perimeter of protection until the weather cleared. That same day, our sister company had a supply and transport mission from Kandahar to Bagram in which the crew went IMC, over-controlled the aircraft and crashed into the side of a mountain, resulting in 18 fatalities.
As you can see, weather in any environment can be just as dangerous, or even more so, than the enemy we are fighting. Weather may be different than what is briefed by the controlling agency. Depending on the given situations, sometimes you have to revise or abort the mission, and there are times when you have to wait until the weather conditions improve before taking off.
**RECIPE FOR SAFETY**

DANIEL MCGLONE AND CAPT. CHARLIE DIETZ  
214th Fires Brigade  
Fort Sill, Okla.

The Soldier mentality isn't one that usually sets a priority on safety. Most Soldiers instinctively realize that they'll be taking risks consistently throughout their career. Someone scared of risks traditionally isn't the type of person who would even think about joining the military. Col. Timothy Daugherty, brigade commander for the 214th Fires Brigade, 4th Infantry Division, at Fort Sill knew this when he took command in June 2011. With more than 24 years experience, Daugherty knew the thought process of Soldiers, both young and old.

One of his first challenges was changing the brigade's safety culture from a "mission first and safety whenever time permits" approach to a "mission first and safety always" mentality. Leadership involvement was the focus in ensuring safety culture would become a top priority within the unit. Immediately, Daugherty issued a challenge to the leadership of the unit: Change the safety culture of the brigade through engaged and experienced leadership, active Soldier participation, training and competition.

The change needed to be simple with achievable goals. One program the Army implemented to assist in changing the culture and recognizing units for their accomplishments is outlined in Army Regulation 385-10, the Army Safety Program. An award within the program is the Army Safety Excellence Streamer.

Daugherty implemented a streamer program to award units that earned superior achievement in mission-essential task list tasks, but he wanted to take it a step further. He incorporated the Army Safety Excellence Streamer award into the brigade's streamer program. The requirements for the streamer, with exception to the accidents, were already part of the Army's mandatory training. To be eligible for the award, organizations had to meet the following eligibility criteria: Twelve consecutive months without experiencing a Soldier/unit at-fault Class A or B accident and 100 percent completion of composite risk management training along with completing the Army Readiness Assessment Program. Soldiers were required to complete the online CRM training, which helps them understand the decision-making process and trains them to mitigate risk associated with hazards that have the potential to harm or kill them or damage or destroy equipment.

Changing the safety culture within the brigade required actively engaged leaders and Soldiers to identify hazards, which, in turn, helped improve the safety culture within the brigade. Daugherty also conducted random back briefs with commanders and leaders about their risk assessments. He reassured them that changing the unit's mindset to one of safety as a priority would result in reduced Soldier issues and accidents. He was correct.

To date, the brigade has seen a reduction in recordable accident rates. Recordable accidents dropped 47 percent when compared fiscal 2011 and 2012. In addition, non-recordable accident (near-miss) reporting increased by 30 percent. This increase allows the leadership to implement mitigation procedures to reduce or prevent accidents within their formation.

Since adding the Army Safety Excellence Streamer into the brigade's streamer program, 10 units earned the award. In addition to the streamer, numerous units within the brigade have been nominated for the Army Accident Prevention Award of Accomplishment.

Another resource that helped the unit considerably was the Army Readiness Assessment Program. ARAP is designed as a battalion commander's tool, addressing root causes of accidental loss by focusing on organizational safety climate and culture. The program is comprised of a 63-question online assessment, filled out by the Soldiers anonymously, that captures a unit's posture on command and control, standards of performance, accountability and risk management.

ARAP provides battalion-level commanders with data on their formation's readiness posture. This program benefits the commander by informing him or her of the safety culture within the battalion through boots-on-the-ground sources. The commander can make changes or improvements to the safety program based on the results of the survey. Daugherty knew this type of assessment would allow everyone to have input into the safety program and assist in growing the knowledge of every Soldier within the ranks.
To further leadership involvement in the streamer program, the brigade requires all incoming commanders and first sergeants to complete the commander’s safety course, and all noncommissioned officers must complete the additional duty safety officer course. Completion of these courses reinforces the 214th Fires Brigade commitment to changing the safety culture. As evident in the reduction in accident rates, leadership and Soldier involvement with a little competition has proven to be a proper recipe for changing Soldiers’ understanding and mindset of safety.
STUPID HURTS
DAVID L. HOUGH
www.soundrider.com

We’ve had a number of motorcyclist fatalities in our little town, and I suspect that it’s the same story all across America. I’m sad for the families of the deceased riders, but I’m angry that so many motorcyclists put themselves in danger. The prevailing attitudes among motorcyclists seem to be that “anyone can do it” and “no special skills are needed.” People who are otherwise prudent about life seem willing to hop on a motorcycle and zoom off into traffic with almost no practice or study.

Our latest victim was an off-duty police officer who was riding with some friends on a Sunday afternoon. She was 27 years old, popular and at the prime of her career. According to the state patrol, her motorcycle failed to negotiate a right curve. “The motorcycle crossed the centerline and struck the right front bumper of a southbound pickup truck that was towing a boat trailer,” the state patrol said. “The rider was pronounced dead at the scene.” The newspaper article about the accident notes that her bike was a 2004 Yamaha, but it said nothing about her licensing status or experience level.

Later in the week, headlines read, “Police bid a solemn farewell.” A procession of about 50 police and emergency vehicles delivered the flag-draped coffin to the high school auditorium for a memorial service where hundreds of mourners honored her memory.

I’m sure that no one in our community would want to hear that she might have done it to herself, but in the case of many self-inflicted fatalities, that’s the sad truth. Her friends all made the corner — she didn’t. A motorcycle going wide in a turn is an indication the rider didn’t know how to corner. And since the bike was less than a year old, we know that she hadn’t had much experience with that machine — and we might suspect she hadn’t been motorcycling very long. It’s entirely possible she had never learned to countersteer, or had heard about it but never gotten it between her ears.

Did her friends know she was inexperienced, but assumed that she would absorb the necessary skills by just getting out and riding? Did any of her riding buddies explain cornering techniques to her, suggest taking a training course or loan her copies of books that might have expanded her knowledge and skill? We don’t know. The tears are flowing now that she’s dead, but apparently there wasn’t enough concern when she was still alive and struggling to figure out how to control her motorcycle.

Recently I was driving my SUV out of the hardware store parking lot. The lot is two lanes in at the east end and two lanes out at the west end. It’s a two-lane street with a center turn lane. At the exit, I observed a motorcycle approaching from the west, but the rider gave no indication he might be turning. Then as I started to pull out, he suddenly darted into the center turn lane and leaned into a left turn. Halfway into the street, I braked to a stop. He circled around in front of me and rode into the exit. No signal, no braking and no concern that a collision with a 4,000-pound truck might hurt. Also, no acknowledgment that he was going the wrong way or that I had braked to avoid hitting him.

I bring up this example of “asking for it” because the world is full of drivers who are not concerned about motorcycles, and therefore motorcycles do not register on their mental radar. This rider could just as easily have turned in front of an inattentive driver, and the impact could have been fatal. And of course, the following week there could have been another memorial service with tears and quavering speeches about how he loved motorcycles and what a great father he had been.

When I first started riding, I felt motorcyclists who crashed were victims of something out of their control. With more experience, I realized that many riders did it to themselves. One day I was in line for the signal light, waiting to pull out onto the main highway. A rider in street clothes zipped by me on the wrong side of the road and attempted to carve off on a side road, oblivious to the white lines being covered in dew. His tires slid out, the bike low-sided and he slid along for a few feet, sanding off bits of shoes and clothing. Fortunately, it was a slow-speed crash.

The surprised rider picked himself up with a shocked expression, staring at his bloody palms. I didn’t stop to assist; I just motored on when the light turned green. I wouldn’t have been sympathetic. I’d probably had said, “Who do you think you are — Superman? If you aren’t hurt, I’ll give you a couple of healthy kicks in the ass with my steel-toe boot to further your education.”
**Stupid Riding Ticks Me Off**

What angers me about stupid riding is that it's unnecessary. Why risk your life riding on public roads before you learn how to corner? Why risk your life just to get into a parking lot a few seconds sooner? I suppose the answers include motorcyclists not knowing how to control a motorcycle proficiently, not understanding what danger looks like or just not being aware that motorcycles require considerable knowledge and skill.

Back up again to that left-turning motorcyclist at the hardware store. His riding tactics really sucked. He didn't help the situation by sudden moves without signaling, or riding into an exit rather than going down to the marked entrance. More importantly, he didn't seem to recognize that SUVs are much more hazardous to motorcyclists than are smaller vehicles. If you slam into the side of a Civic or Corolla, the thin metal will absorb a lot of energy as it crumples, and you'll probably go sailing over the top to slide down the pavement. But if you slam into a truck-based SUV, it's not going to bend much, and it's too tall to clear. So there's a good chance you'll bash your body into the side.

To put it another way, the riders I've mentioned shared the sin of not understanding what danger looks like or what to do about it. They were basically deficient on mental skills. So, how do we expect such riders to get smarter? I've written two books on street riding skills, "Proficient Motorcycling" and "More Proficient Motorcycling." I occasionally offer articles (such as this one) for posting in publications.

I've also offered seminars at various rallies, where we can discuss riding skills. After one seminar a couple of years ago, a participant came up and said, "Dave, you know there was not one question in the seminar that you haven't already answered in your books." I explained that humans have different learning styles. Some people can learn by reading. Others have difficulty. Some people can only learn by talking about something, others only by trial-and-error. That's why it's important to have books, seminars and training courses. We need a variety of learning opportunities to match the variety of different adult learning styles.

At the Sportbike Northwest rally this summer, I did a seminar on cornering tactics for public roads. Some riders participated; others made a point of sitting nearby and talking loudly among themselves. Was a seminar needed for a group of apparently experienced sport riders? Well, during the event, several of those "experienced" riders managed to crash. Is there any relationship between those who ignore information and those who crash? Could it be that even experienced riders could learn some little tidbit that might help avoid a crash?

**Emergency Avoidance Skills**

The Motorcycle Safety Foundation has always been big on emergency avoidance maneuvers, especially braking and swerving. Their original concept was to figure out what accident-involved riders were doing wrong and then teach the missing skills. The MSF courses were heavily influenced by results of the Hurt Report that showed a high percentage of riders crashing into cars without taking any evasive action. Ergo: “Let’s teach ’em to do emergency swerves and quick stops.”

That made sense to me as a new instructor back in 1980, but eventually I realized that we couldn't depend on emergency maneuvers. The human brain is wired so that in an emergency we react based on habits, and then think about it later. In other words, if you're dumb enough to not brake for an SUV that's about to turn across your path, your habits will determine what happens next. If you're in the habit of just rolling off the gas, you'll slow down gradually, right up to impact. If maximum effort braking is a no-brainer for you, you might do an aggressive quick stop. And if you're in the habit of not braking once you're committed to a turn, you'll motor ahead. The point is you won't squander time on thinking. You'll just do it.

That's why I suggest finding some twisty road and riding it aggressively so you'll make powerful steering and braking inputs part of your habit patterns. If you live out in the flatlands where there aren't any good twisty roads, you could practice cornering and braking skills in a controlled situation such as a cornering range.

There is a practice cornering range in More Proficient Motorcycling that's been painted down in various locations around the country. The Idaho State Police are using it for officer training. Team Oregon follows the same idea, but they use a go-kart track. Personally, I think rally participants would gain skill quickly by riding such a cornering range. Or, perhaps your local club could find some pavement and set it up. There are detailed instructions for lying out and running the PM Cornering Range in the book.
**So what's important? Skills or knowledge?**
The emphasis on emergency skills in training courses has led us to believe that control skills are where we should focus. Certainly, it’s important to know how to corner, how to shift gears without sliding the rear tire, how to brake hard without falling down. But eventually, most of us realize that what’s really important is to know what trouble looks like and how to avoid riding into it.

A young, bulletproof rider might have the reflexes to ride dumbly into bad situations and then survive with split-second maneuvers. Nine out of 10 they make it. But long-term survival demands that we look further ahead, spot potential problems early and just make small adjustments in line or speed to avoid a dangerous situation.

Frankly, if you’re still experiencing lots of close calls, you’re not using your brain enough. If you don’t spot a driver about to turn left until he’s smack in front of you, it means you weren’t paying enough attention to traffic around you. If you come over a hill and suddenly have to brake hard to avoid a truck backing out of a driveway, that means you were riding too fast for your sight distance at the moment. It’s important to spot dynamic patterns that could lead to a collision and take action soon enough to get out of the way. Veteran riders typically have few close calls because they have developed proficient mental skills.

There are a number of other riding skills books available by well-known motorcycle racers, including Nick Ienatsch, Keith Code and Reg Pridmore. These track-oriented books are helpful for fast cornering, but that’s also the drawback. They are focused primarily on track skills rather than riding on public roads. Whitehorse Press has reworked the MSF’s book, “Motorcycling Excellence,” into a second edition that now includes tidbits of advice by various famous road racers, plus some traffic scenarios by an author you’ll probably recognize. This is a good book to give to any new riders in your circle of friends. It might help them avoid a fatal accident while they’re figuring it all out.

Please, let’s get smarter about riding on public roads. Stupid hurts.
ENFORCE STANDARDS, SAVE LIVES
CHIEF WARRANT OFFICER 2 CHAD KOHRS

The first 90 days of deployment, especially a first-time deployment, are statistically one of the most dangerous times an aviator can face in his or her Army career. The challenges include an uncertain environment, increased duty days and more flight time than ever. These strains are just a few things every pilot faces in a combat environment. The Army, knowing these factors, trains aviators to specific standards and mitigates risk using risk management tools. However, when these standards begin to break down, barriers are put up and risks exponentially increase.

Earlier in the day during our team brief, our instructor pilot said he was going to conduct continuation training of aircrew training manual maneuvers with a new crewmember during our mission. We acknowledged and had no further questions. This vague statement was only one example of the breakdown in crew coordination.

There we were, about two weeks into our rotation with local orientations complete, prepared to conduct a full mission set. On this routine mission in northern Iraq, I was training for pilot in command in the trail position. Flying in the lead position was a very experienced IP with a brand new pilot. Near the end of the mission, everyone was tired at the 12-hour point of the duty day.

On short final and trail position, I was eager to be done for the night. Expecting the same type of aggressive tactical approach we had performed the previous few weeks with tight formations and expedited transitions, I “set right” about five to seven rotor disks separation and above lead's rotor wash. That's when it happened — a collapse in crew coordination.

The lead aircraft unexpectedly performed a slower-than-normal approach without announcing his actions. Not knowing or expecting this type of maneuver was almost a fatal error. I was expecting the typical approach we'd been conducting for the last several weeks and set my airspeed accordingly.

Simultaneously going through infrared crossover, a phenomenon occurred in my AH-64 while flying pilot night vision systems. The lead aircraft disappeared. Within a few seconds, I pulled aft cyclic which caused an increase in altitude and changed my visual aspect of the lead aircraft, which was now within a few feet of a mid-air collision! A little shaken up, I continued the approach and proceeded to parking.

After shutdown, I went to the IP of the lead aircraft, dissatisfied with his uncharacteristic approach and the fact he did not announce his actions, which almost caused a collision. His response was that during the team brief, he stated he was going to perform ATM maneuvers with his student and that if I lost visual contact with his aircraft, I needed to announce it. So, there it was. All elements of crew coordination went out the window and almost cost everyone their lives. To make matters worse, the most senior guy didn't realize it.

Lessons Learned
Within a matter of a few seconds, both flight crews had become complacent with ATM standards. I learned some valuable lessons that day: standards are there for a reason, anyone can make a mistake and the potential to save lives can only be fully realized if everyone enforces standards and works as a team.
ACCIDENT BRIEFS

AVIATION

UH-60L
Class A
• The crew was executing an air assault mission when they received readings of a high TGT and Nr droop just before touchdown. The aircraft landed hard, sustaining significant damage to the airframe and tail boom.

Class B
• The crew experienced loss of power on takeoff. The aircraft subsequently descended to ground contact and landed hard.

GROUND

AOV
Class A
• A Soldier was killed when the Army-leased ATV he was operating overturned. He was reportedly not wearing a helmet.

PERSONNEL INJURY
Class A
• A Soldier drowned when his kayak capsized in a storm-swollen river and he was swept away.
  • A Soldier was killed when she was struck by shrapnel while photographically documenting a 60 mm mortar firing.
  • A Soldier died after diving off a rock into a river. The Soldier didn't resurface and his body was found later.
  • A Soldier drowned while hiking across mudflats from an island back to the mainland. During the hike, the tide came in rapidly. The Soldier struggled and ultimately submerged in the water. The water temperature was reported as frigid.
  • A Soldier was killed while conducting a proficiency jump. The Soldier's parachute deployed; however, when fellow Soldiers found him on the ground, he was unresponsive.

DRIVING

PMV-4
Class A
• A Soldier was killed when the vehicle he was a passenger in left the roadway, overturned multiple times and struck a telephone pole. The four other occupants of the vehicle were transported to a hospital with critical injuries. Seat belt use was not reported.
  • A Soldier died when she lost control of her vehicle while en route to annual training and was ejected from the driver-side window.

PMV-2
Class A
• A Soldier was killed when he lost control of his motorcycle in a right-hand curve. The Soldier's speed at impact was estimated to be 61 mph. The posted speed limit for that section of road is 35 mph. The Soldier was wearing a helmet.
  • A Soldier died when a vehicle driven by a teenage civilian turned in front of his motorcycle.
  • A Soldier and his wife were killed when he failed to negotiate a curve, causing the motorcycle to leave the road and strike a tree.
• A Soldier suffered a permanent total disability when his motorcycle struck an animal on a rural road.

• A Soldier died after he lost control of his motorcycle in a turn. He was wearing his full personal protective equipment, including a DOT-approved helmet.

• A Soldier was killed when his motorcycle collided with a vehicle in the approaching lane. The Soldier was licensed, trained and wearing a helmet at the time of the accident.

• A Soldier died after he struck a van at an intersection and was thrown to the ground. The Soldier had the right of way.

• A Soldier died after she lost control of her motorcycle on a wet road, hit a curb and was thrown into a raised brick marker in the median. According to the police report, the Soldier was traveling above the posted speed limit.

• A Soldier was killed when his motorcycle collided with a moped that entered his lane of travel. The moped operator was also killed, and the Soldier’s passenger was seriously injured.
CHANGE OF SEASON
2014: WHAT'S YOUR OBJECTIVE?

We just turned the page on another fiscal year, and preliminary numbers suggest it will be among our Army’s best ever for safety. But no matter how fiscal 2013 shakes out, we must allow ourselves to go nowhere but forward into the new year, building upon our successes and paying heed to lessons learned along the way. The Army’s annual safety and occupational health objectives, signed in early September by the secretary of the Army and Army chief of staff, provide a sound framework for you to do just that within your formations.

Fiscal 2014’s objectives are straightforward: incorporating three specific goals into the unit’s strategic plan, and working toward an Army-wide target of a minimum 10 percent reduction in all losses between now and the end of next September. While that figure is less daunting than accident reduction goals set in the past, it won’t be easy to achieve. An active and participatory safety culture, however, will go a long way toward helping you and your Soldiers reach and even surpass all of this year’s objectives. Here’s how culture can help, broken down by each individual objective.

Objective 1a: Identify your organization’s top three accident loss areas and provide tools and programs specifically targeted to mitigate the risks that led to those losses. Every unit has its own distinct safety culture, whether good or bad. As a leader, you should know not only what kind of culture you have, but also what risks your Soldiers face most often. Your leadership style helps set the culture, and a leader who is committed and actively leading risk management will garner more buy-in from his or her Soldiers on the unit’s safety programs. Willing participation from all stakeholders is a key ingredient in recognizing your formation’s top hazards and targeting them with appropriate and effective tools.

Objective 1b: Engaged leaders are the key to reducing our most prevalent cause of Army mishaps — human error. Incorporate proactive measures in your plans to establish a positive safety climate in your organization. Positive safety cultures are, by their very nature, proactive. Engaged leaders deal with the “ifs” and “thens” before a mishap happens instead of after, actually preventing accidents in the process. They also actively seek buy-in from not only their Soldiers, but leaders at every level across the chain of command. This “peer leadership” ensures there are no weak links in the fabric of the unit’s safety culture, where even a seemingly minor disruption could put many Soldiers at risk. Conversely, negative safety cultures are almost always reactive, with leaders taking causal factors at their face value and enforcing safety as an inconvenient, but required, mandate. The check-the-block mindset that dominated safety for many years is representative of this, and we’ve worked hard as an Army to move away from that model. Stay proactive and you’ll stay ahead.

Objective 1c: Specify the metrics you will use to track, analyze and evaluate your progress in reducing accidental loss in your unit. Safety is part art, part science. Establishing a positive and proactive safety culture is most definitely art, but backing up your programs with verifiable data is where science enters the picture. The Army Readiness Assessment Program is a great tool to help you identify which metrics matter most in your formation. Thousands of assessments have verified time and again that units with proactive safety cultures operate in high-risk environments at significantly reduced accidental loss rates than those that simply react to accidents. I encourage leaders to continue leveraging this institutionalized program. The metrics will show where you’re reducing injuries and saving lives.

Objective 2: For each of those top three loss areas identified, establish a quantitative goal to achieve a minimum 10 percent loss reduction and develop a unique system for defining goals and success. When approached correctly, this objective should be a culmination of the previous three; each goal is part of the cycle that leads to accident prevention and loss reduction. By quantifying progress (or lack thereof), you can make an informed decision on what is and isn’t working for your Soldiers. This analysis should be a continual process throughout the fiscal year, with benchmarks you set for your unit’s particular circumstances.

Fiscal 2014’s objectives are designed to validate what many units and organizations are already doing exceptionally well. With an aggressive and proactive approach to risk management, leaders can take them from goal to reality. As always, my team and I stand ready to help — let us know how we can make safety pay for you!

Army Safe is Army Strong!

TIMOTHY J. EDENS
Brigadier General, USA
Director of Army Safety
CHANGE OF SEASON
STEVE KURTIAK
Driving Directorate
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One of the most beautiful times of the year to ride is during the fall as nature’s colors reach their full brilliance. However, despite the season’s beauty, fall can be an especially dangerous time for riders. With days getting shorter and temperatures falling, motorcyclists need to adjust their riding techniques accordingly.

See and be seen
As the days shorten, you’ll be spending more time riding in the dark. While you’ll be able to enjoy some beautiful sunrises and sunsets as you ride to and from work, you’ll also have to deal with the sun’s glare. That glare, especially when the sun is low on the horizon, can make it hard for drivers to see you or you to see the road. You have probably experienced this many times in a car. Despite leaning your head back, pulling down the sun visor and wearing your sunglasses, you’re still partially blinded by the glare.

This problem can be worse for motorcyclists. Even if your helmet has a visor or tinted shield to reduce the glare, you’ll still have problems seeing oncoming traffic. If you can’t reduce the glare, you’ll have to hold your head so you can see the road while trying to keep the sun out of your eyes. This usually means riding with your head in an awkward, tucked position.

To be seen, you need to position yourself in your lane where you’ll be as visible as possible to oncoming traffic. This is particularly important when approaching intersections, where the bottom-line rule is to always assume someone will pull out in front of you. You need to prepare yourself for that by adjusting your speed accordingly, being ready to maneuver quickly and always leaving yourself a way out. While these tips apply year round, they’re especially important in the fall, when the sun’s glare makes it harder for others to see you during sunrise and sunset.

Slip-sliding away
Falling leaves present their own hazards. Wet leaves reduce traction and can make riding to work or taking weekend trips on twisty, two-lane roads more dangerous. Smart riders adjust their speed going into curves and look well ahead to choose the best line to avoid any wet, slick leaves. As temperatures drop, smart riders will be on the lookout for shaded curves, where the lack of sunlight has kept the ice from melting. Whether you ride in the Great Smokies, Cascades, Adirondacks or foothills of the Alps, it’s up to you to be aware of the road conditions before you ride. Every morning, I check the weather, dress accordingly and mentally prepare myself before starting my motorcycle.

Speaking of dressing for the ride, there’s nothing worse than having cold hands and feet. Not only is being cold uncomfortable, it can impair your ability to control your motorcycle. Whenever my hands begin to feel a slight chill, I start adding layers of clothing. I put my summer gloves away and wear my winter set without the liner. When my hands start feeling cold again, I add the liners and I’m good until the spring. I do the same thing with my jacket and pants. Because my boots provide excellent protection from the elements, I just wear thicker socks in the late fall and early winter.

The cold not only affects your body, it can also affect your ability to make good decisions. A friend with many years of riding experience crashed during an early winter morning when he failed to recognize slippery road conditions ahead of him on an exit ramp. Being cold, he was less alert to dangers and didn’t spot the spilled diesel fuel until it was too late to avoid it. Luckily for him, he was wearing the appropriate personal protective gear and only suffered a broken left arm and some ruffled pride. Regardless your level of riding experience, being cold and not having your head in the game can bite you.

Storing your motorcycle
When the riding season ends, you’ll definitely want to protect your motorcycle by properly winterizing and storing it. Some of you will put up your bikes in November, so now is the time to start thinking about the proper storage techniques. Your owner’s manual, coupled with the T-CLOCS (Tires, Controls, Lights, Oil, Chassis and Stand) inspection checklist, will guide you through the proper steps. For easy reference, here are some tips to help your bike survive its winter hibernation:

• Change the oil.
• Fill the fuel tank and add fuel stabilizer.

• Properly inflate the tires.

• Wash and wax the painted and chromed surfaces.

• Follow the instructions in your owner’s manual to disconnect and remove the battery.

• Plug the exhaust and air cleaner openings to keep out any critters.

• Make sure you conspicuously mark any plugs you install so you don’t embarrass yourself in the spring with a motorcycle that won’t start.

• Use a cover that will breathe, such as light canvas, to protect your motorcycle. A plastic cover can create condensation and cause rust.

• Attach a check sheet to the throttle or make a note in your owner’s manual to remind you of what you did when you stored your motorcycle.

Winter — and the snowplow that buried your driveway with two feet of snow to shovel — will soon be gone. By following the steps in your owner’s manual, T-CLOCS checklist and the check sheet you made, you’ll save money on maintenance costs and get on the road quicker in the spring. Live to ride and ride safe!
"Holy cow! Did you just see that?" I asked my friend. "That garbage truck almost ran over me!" All the driver could say was, "I'm so sorry. I didn't see you back there."

During the months leading up to this near miss, that driver, Sam, had been operating his dump truck without a ground guide. He'd been doing it for so long that it was habit. According to him, he worked a lot faster doing everything by himself. At the time, his favorite phrase was, "Who needs a ground guide?"

Master Sgt. Samuel Samson served in the military for 32 years as a motor vehicle operations specialist and was a decorated motor pool manager. An expert at everything motorized, he was known as Sacred Sam because he was very passionate about his job. He was always a stickler for the details; everything had to be done by the book. Sam was a model Soldier.

Fast forward a few years later, and Sam had started his own garbage disposal company. With money he had saved, he bought a couple of trucks and hired some employees. As the business prospered, so did his fleet of trucks. In an effort to save money, Sam decided to drive one of his trucks. He was comfortable driving and had never had an accident. Little did he know things were about to change.

Sam's close call with me was terrifying, and I hoped he'd learned his lesson. Sadly, that wasn't the case. Three weeks later, my friends and I were on our way home when we noticed a large crowd and flashing lights at the middle school. We thought something big must have happened because of all the commotion, so we headed over to investigate.

There were children and parents crying everywhere. A bystander told us that a 12-year-old student was struck and killed as he was crossing the parking lot. A dump truck was backing up and ran him over. Sam said he never saw the kid and claimed he came out of nowhere.

Sam's story is tragic and could've been avoided. The Army gives us tools and training that should be adopted as life skills, both on and off duty. They should also be carried with Soldiers even after they leave the military.

**Did You Know?**
Ground guiding is a task almost every Soldier performs. Ground guides assist equipment operators in identifying potential hazards, obstacles and personnel that they may not otherwise see. However, when it's not executed safely, lives are in jeopardy. Each year, Soldiers and civilians are seriously injured and killed in ground-guiding accident. Safety officials agree that most of these types of accidents are preventable. To learn more, visit our Know the Signs campaign page at https://safety.army.mil/LinkClick.aspx?fileticket=jIlkd_ukB6E%3d&tabid=2409 and https://safety.army.mil/LinkClick.aspx?fileticket=wvSuxiIYxRY%3d&tabid=2409. For standardized visual signals, check out Field Manual 21-60 (Visual Signals) at http://armypubs.army.mil/doctrine/DR_pubs/DR_a/pdf/fm21_60.pdf. Also check out our Driver's Training Toolbox for more resources at https://safety.army.mil/drivertrainingtoolbox/ (AKO log in required).
An Army aviation maintenance complex shares many of the attributes of a crime scene. When something goes wrong, or a crime is committed, there are many pieces to the puzzle. If left to their own, each one has varying degrees of value. But pieced together, they form a picture that can be of great value, impact efficiency dramatically and, ultimately, affect the safe operation of our aircraft.

In the aviation world, when a failure occurs on a helicopter, you have a number of variables and players. First, you have the pilot, pilot in command and crew chiefs who experienced the failure. Next, you have the maintenance personnel, along with their troubleshooting trees and test equipment. Along with that you have the data captured in flight instruments and recorders. And don’t forget U.S. Army Aviation and Missile Command, U.S. Army Communications-Electronics Command and the host of other manufacturers’ technical representatives. Take all of this and throw in a group of maintenance test pilots and you have an idea of the need to pool your resources.

This all came to light recently, when one of our UH-60s had to perform an emergency landing into a corn field about five miles from our facility. The crew started experiencing a degree of high-siding and a slew of flight instrument indication anomalies. As they monitored the situation, they noticed some unusual noises coming from the No. 1 engine and a drop in rotor revolutions per minute. The situation seemed sketchy at best, and it was decided to go into lockout and put her down.

A maintenance team was dispatched and attempted some rapid troubleshooting in hopes of a quick fix. After no luck and the weather turning, it was decided to get the aircraft out of the farmer’s field and back home for some tender loving care. So, a tow team was assembled and off it went.

This is where I enter the picture. I’m an avionics shop supervisor, and a couple of my guys were on the team dispatched to the scene. The problem was quite complex, in that it involved most of the components mentioned in the previous paragraph (crew, maintenance, recorder data, technical reps, etc.). But what intrigued me was orchestrating a coordinated effort to pull all of the information and assets together at our disposal. Off I went, emailing, interviewing, phoning and analyzing. Along the way, I gathered information, passed information on, formulated reports and did whatever I could to expedite and elevate the findings and indications.

While interacting with all of the players, we were able to put together a clear picture of what happened that was agreeable to all. In doing so, it gave us in maintenance a path that allowed us to zero in on a specific area of the aircraft and eventually down to the problem. It also gave us the assurance that we had covered all of the bases to safely release the aircraft to the maintenance test pilots. The aircraft is now back up and flying missions again.

We in the Army aviation community have an enormous network with a wealth of knowledge and expertise that we can pool together at a moment’s notice. This example is just one of many that probably occur across not just in aviation, but any number of endeavors within the Army as a whole. Just as with a crime scene, we want to move safely, accurately and thoroughly pull together all of those resources to maximize our efforts and achieve mission success.
SAVE A LIFE (OR TWO)
WARRANT OFFICER 1 JUSTIN JESUS
10th Combat Support Hospital
Fort Carson, Colo.

My dad always took the time to ensure his children were safe. As soon as he noticed one of us doing something wrong or unsafe, he let us know immediately so it didn’t become a bad habit. I remember one day when I unbuckled my seat belt just before we’d reached our house. My father heard the “click” from the back seat of our Nissan Sentra and asked what it was. From the tone of his voice, I knew I was in serious trouble.

He said, “Boy, you need to put that seat belt back on.” I argued that we were so close to home that I could actually see our house, but he didn’t bend. He told me it didn’t matter if we were 100 yards or 100 miles from our destination; seat belts stay on until we park. You’d think that would be a lesson I’d never forget. Unfortunately, I did.

Several years later, I was about eight months into my first deployment to Iraq, driving a pickup truck to drop off some tools. I was only driving about 100 feet on an improved road with a speed limit of 10 kilometers. Surely I didn’t need to put on my seat belt for such a short trip, right? Wrong!

As I slowed the pickup to cross over a speed bump, something told me to look at my rearview mirror. I was shocked to see another noncombat vehicle approaching with no signs of stopping. I grabbed hold of the steering wheel, braced for impact and then BAM! I was rear ended. My first thought was back to that day when my father scolded me for taking off my seat belt. I had just proven his point.

Once I realized I was OK, I got out of the pickup to check on the people in the other vehicle. They were also all right, but the front end of their vehicle was smashed. We were all lucky, and this accident reiterated my father’s seat belt lesson from years earlier. I was determined to never put myself in that situation again.

Fast forward 11 months, and I’m back in the States, partying at a house with a couple of friends. It was just after midnight when we climbed into our designated driver’s 2006 Mustang GT convertible to head home. Without even thinking about it, I immediately buckled up and settled in for the ride. A few miles down the road, I noticed the driver and front-seat passenger weren’t wearing their seat belts. I told them they both needed to buckle up. Of course they gave me a hard time, but eventually they took my advice because they knew it was the right thing to do.

No more than five minutes later, as we neared an intersection traveling about 40 mph, we saw a car approaching in the oncoming lane. Just as we entered the intersection, the driver of the other vehicle turned left in front of us without yielding. We collided nearly head on.

The Mustang was totaled, but we were all alive. I only had minor bruises on my neck from the seat belt. The front passenger and driver suffered some injuries on their legs and heads. Had this accident happened just a few minutes earlier, they likely would have died. Later, they both thanked me for insisting they buckle up.

Whether you’re driving a combat vehicle or your privately owned ride, seat belts are a must. Make sure everyone else in the vehicle is buckled up too. After two close calls, I’m not afraid to tell someone that the vehicle doesn’t move until everyone puts on their seat belts. You should do the same. You might just save a life or two.
FATIGUE MANAGEMENT
CHIEF WARRANT OFFICER 3 RICHARD BERTHIAUME
Joint Forces Headquarters-Maine
Maine National Guard
Augusta, Maine

It was day seven at the Joint Readiness Training Center and it showed on the faces of the young infantrymen. They were exposed to typical central Louisiana weather in November; the nights were cooler and often marked by heavy rains. The platoon sergeant worked hard to keep the troops motivated and moving under their combat loads. No one wanted to be cold or wet, so the rucks were especially heavy.

With ammo, rations and water, each Soldier carried more than 100 pounds of gear. After seven days of constant operations, the effects of that weight were evident. Even the fittest of the platoon were hollow-eyed with fatigue. Their reactions were slow and their minds fuzzy. They rucked up and moved on toward their next mission, an attack on a suspected strong point five clicks away. Less than 500 meters into the movement, the tired point man missed seeing movement ahead as he cleared the edge of a small grove. The opposing force ambushed the platoon. No one survived the notional mission.

The above story is a classic fatigue mishap. Fatigue is part of an infantryman’s life in the field. Without rest or support, fatigue can reduce an effective unit to a leaderless gaggle even in the most benevolent terrain. With rough terrain and bad weather, the effects of fatigue multiply exponentially. The more hills you have to climb and the worse the weather, the faster you are going to tire. Physical training reduces that rate, but it does not eliminate it. On the other hand, carrying too much weight accelerates exhaustion. This is common sense, right? Maybe so, but common sense does not always prevail.

Consider the risk-versus-gain aspects of combat loading your Soldiers. What are you risking when you configure your Soldiers for combat? The answer — your mission and Soldiers. If Soldiers have their mission-essential equipment, they may be uncomfortable at times, but they will be able to sustain their combat effectiveness. If Soldiers are being overloaded and collapse from the weight of comfort items, they may not even reach the objective. By overloading Soldiers with comfort-related items, leaders are in effect expending them before they have the opportunity to achieve the mission.

Crew rest plans are a vital combat multiplier for military operations. If the Soldiers in your command are constantly fatigued and don’t have time to re-energize, you run the risk of mission failure and casualties. In today’s battlefield, the number of possible hazards is immense. It takes mental sharpness to detect all the hazards that the enemy has to throw at you and your Soldiers. A Soldier’s state of mind is absolutely a big factor in successful missions and bringing everyone home safely. Decreased mental capacity due to fatigue causes stress and leads to distracted Soldiers.

It’s important to recognize the potential for stress and fatigue in any event or situation:
- Physical stressors include external environmental conditions such as heat and noise, equipment weight and the terrain underfoot.
- Mental stressors involve information that places demands on either your thoughts or feelings.
- Combat stressors can be physical or mental and occur during the course of combat-related duties. These stressors can result from enemy action, your unit or your home life.
- Stress is the way your body and mind counteract stressors:
  - Positive stress helps you respond appropriately to normal stressors; some amount of stress is necessary to prompt effective responses.
  - Too little stress may make you distracted, forgetful or cause you to fall asleep.
  - Too much stress may make you focus on only one aspect of a task, neglecting the larger picture.
• Extreme stress may cause you to “freeze up” or become agitated and flee.

• Prolonged extreme stress can cause physical and mental disablement.

**Physical fatigue results from:**
• Hard or prolonged work

• Muscle tiredness

• Aerobic fatigue

• Sleep deprivation

• Physical illness

• Intense emotions, such as anxiety and fear

**Mental fatigue results from:**
• Prolonged mental effort on a specific task

• Emotions such as boredom or uncertainty

Battle fatigue/combat stress reaction is usually present at some level in all unit personnel in a theater of combat operations. Soldiers and leaders are responsible for identifying personnel who require treatment for battle fatigue or combat stress reaction. Watch for stress indicators in your peers and encourage other Soldiers to self-report. The key element of complacency is your attitude.

Leaders and mission planners need to be completely in tune with the unit and Soldiers’ operational tempo and make sure that the amount of fatigue and stress that the Soldiers are experiencing is taken into consideration for mission success. Remember, a fatigued Soldier is at increased risk of injury or death.
As an aviation safety officer at Kandahar Air Base in 2010-2011 assigned to Task Force Out Front, I was a pilot in command and air mission commander and flew more than 150 combat missions responding to numerous troops-in-contact calls in Kandahar province. During my deployment, we had a mid-air collision with an unmanned aircraft system because communication and tracking of UASs between ground units within the same brigade was ineffective. Here's what happened.

A scout weapons team responded to a troops-in-contact call from Iron 6, which reported indirect and direct fire on “Fort Iron.” After arriving on station, the ground unit in contact informed the SWT that an RQ-11 Raven was operating over the target area at 3,580 feet mean sea level altitude. This information had not been previously reported to the SWT during the check-in procedures with the battle space owners. The lead aircraft was below the reported altitude of the RQ-11 and informed the ground unit that the SWT would remain below that altitude so friendly and enemy positions could be quickly identified by the SWT, and the Raven should be moved to a higher altitude away from the target area.

The ground unit acknowledged this course of action, and the SWT proceeded to identify friendly and enemy positions. Suddenly, the trail aircraft collided with the Raven at about 3,250 feet MSL, shattering the left side windscreen and damaging the left side of the glare shield, a digital camera and an M4 carbine. The SWT aircraft recovered to Forward Operating Base Ramrod without further incident and no injuries to either crewmember. In order to prevent such accidents, I think special emphasis should be made for all battle space owners to retain timely and accurate information of all assets, including UASs, controlled detonations, other aircraft and indirect fires, at all times so this information can be communicated to all aircraft operating within their area.

So why did this accident happen? First, the AMC chose to remain in an active UAS restricted operations zone after realizing the UAS was still in it, resulting in a collision. This could be prevented if aviators who find they are inadvertently in any type of ROZ take immediate action to exit it, regardless the tactical situation. As aviators, it is easy to get caught up in the moment.

The ground unit was also at fault. The radio operator agreed to coordinate the airspace by altitude separation. The information was not received by the UAS operator in a timely manner. This airspace deconfliction measure proved ineffective. Without positive two-way communication between an aircrew and a UAS operator, airspace deconfliction cannot be made in a timely manner for an aircraft to enter a ROZ.

The collision occurred as a result of insufficient airspace deconfliction, poor communication between the RQ-11 operator and the OH-58D aircrews, and the haste of all parties involved inherent with combat action. Because of the lack of situational awareness of the airspace, a RQ-11 should always be provided horizontal separation rather than vertical separation. Even though clearance had been afforded to the SWT from brigade and squadron battle space owners, and the ground unit had, apparently, agreed to vertical separation between the SWT and the UAS, the SWT was not necessarily communicating directly with the UAS operator. Steps taken to deconflict aircraft were not communicated to that operator quickly enough to take effect. The collision occurred as a direct result of the ground unit’s lack of battle tracking of their UAS, insufficient airspace deconfliction, lack of communication between the RQ-11 operator and the OH-58D aircrews, and the haste of all parties involved inherent with combat action.

This accident could have been avoided with better communication between the aircrews and the battle space owners. Combat action can afford a short tactical pause to ensure friendly elements do not interfere with each other when locating and engaging enemy forces. A coordinated effort must be in place to integrate ground and air forces before actions are taken. It is incumbent upon all PCs and AMCs to reduce the number of hazards to a reasonable level when conducting combat operations, even with little or no notice of the operation.
AN UPHILL BATTLE
CHIEF WARRANT OFFICER 2 BRENT MITCHELL
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It was a typical day in Tennessee — nice weather, beautiful scenery and plenty of fun things to do. I was in high school and, like many people throughout the country, raced all-terrain vehicles during my free time. I’d never taken an official safety course, but my dad had done a good job in giving me instruction on proper riding techniques.

On this particular day, I had grown tired of riding the same old trails that surrounded our property, so I cleared a new one to practice for an upcoming race. After a few passes, though, I didn’t think it was much of a test either, so headed out in search of more challenging terrain. I soon found what I was looking for in a dried-out creek bed.

I decided to incorporate this newly found territory into my practice race loop. I made my way down a hill into the creek bed, rode a short distance and then searched for an area to climb back out. The sides were quite steep, but I soon found a spot that looked climbable. There was not much room to gain speed, so I put my ATV in first gear and just went for it. About three-quarters of the way to the top, I lost all forward momentum and the ATV slid back down the hill. I decided to try it again.

On the second attempt, the same result occurred. This time, however, as I slid back down the hill, my right-rear tire bumped a tree. This caused the ATV to spin sideways and roll over to the left. I was not overly concerned, though, because I had flipped an ATV in the past.

Instinctively, I jumped off and tried to get out of the way. Failing to consider the lack of traction, I slipped and fell. The ATV continued to roll and the handlebar landed on my hand. Once the ATV came to a stop, I got up and rolled it back onto four wheels. I then sat there and thought about a better way to get out. I eventually found an exit that was not as difficult and finally made it out of the creek.

By now, it was late afternoon and my hand was really starting to bother me, so I headed home. Along the way, my hand throbbed as I traversed the bumpy terrain. My dad was standing in the garage when I got home and asked if I was all right. He could tell I had wrecked because I was covered in dirt. I told him about my hand and he decided we better have a doctor take a look at it.

X-rays later revealed that I had broken a bone in my right hand. I was crushed because I knew this would affect my riding time. In fact, it caused me to miss the next six weeks of the race season. Fortunately, after six weeks in a cast, I was back to normal.

I learned a few lessons that day, including:

• Never ride alone. If something were to happen, as it did to me, a riding buddy will be there to assist or go for help.

• Don’t ride terrain that exceeds your skill level. I was an experienced rider and thought I could handle any challenge. I was wrong.

• Always let someone know where you’re going and when you plan to return. When you don’t show up, they’ll know where to start looking for you.

• Take the appropriate safety courses.

• Ensure that you and anyone else you ride with wears appropriate personal protective equipment. Accidents can happen in a flash. PPE can save your life.
FYI
The following tips from the ATV Safety Institute can help you avoid having an accident like the one described in this story:
• Some hills are too steep for your abilities. Use common sense. If the hill you’re approaching looks too steep, it probably is. Also, some hills are just too steep for your ATV, regardless of your abilities.

• Never ride past the limit of your visibility. If you cannot see what is on or over the crest of a hill, slow down until you have a clear view.

• The key to being a good hill rider is to keep your weight uphill at all times.

When approaching an uphill climb, you should:
• Keep your feet firmly on the footrests.

• Shift the ATV into a lower gear and speed up BEFORE climbing the hill so you can maintain momentum.

• When approaching an uphill climb, either move up on the seat and lean forward, or stand and position your torso over the front wheels.

As you’re climbing, you may need to shift to a lower gear to prevent lugging the engine or stalling. To shift into a lower gear on a hill, remember:
• Keep your bodyweight forward as you prepare to shift gears. For steeper hills, lean forward as much as possible.

• Shift quickly while momentarily releasing the throttle; this will help keep the front wheels from lifting.

If you don’t have enough power to reach the top of the hill but still have forward momentum and enough room to turn around safely:
• Keep your weight uphill.

• Make a U-turn before you lose speed.

• Proceed downhill in a lower gear, keeping your weight to the uphill side.

If you’re riding uphill and lose all momentum:
• Keep your weight uphill and apply the brakes to come to a stop.

• Never allow the ATV to roll backward.

• Apply the parking brake while keeping your weight uphill.

• Dismount on the uphill side or to a side if pointed straight uphill, and follow the procedures described in your owner’s manual.
SHOCKING SAFETY TIPS
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Electrical safety can mean many different things. It can include protection of outlets in your home to knowing that you can’t submerge certain electrically charged items in water. No matter the task, taking appropriate safety measures is important.

In Jasper, Ga., my hometown, a house burned to the ground because of the lack of proper outlet usage. Too many items were plugged in to a faulty outlet. This resulted in a house fire that destroyed all of the contents of the home. Luckily, no one was injured, but two pets died.

Back in 2009, I was in charge of the police academy in Ghazni, Afghanistan. Part of my duties included maintaining a safe environment. Unfortunately, my area was laden with faulty wiring, as my predecessor didn’t do a good job. As a result, a staff sergeant was shocked not once, but twice. The second shock resulted in a fall. Fortunately, it wasn’t as bad as it could have been. As a result, contractors repaired the substandard wiring system.

Because faulty wiring and improper use of outlets can have devastating effects, it is important to follow proper safety steps. Never use electrical equipment near water. This is especially important in the hot summer months when we are more apt to be around pools and other outdoor water areas.

Treat all electrical lines with caution. Even low voltage electrical cords can cause damage if improperly handled. When installing new features such as light switches or ceiling fans, make sure you turn off the breaker. If this isn’t done, sparks could ignite a fire and anyone in contact with energized equipment could receive an electrical shock.

Don’t overload an outlet. Doing so could lead to a fire by overstressing the electrical current.

Unplug all appliances when a storm is present. This prevents electrical surges from traveling through the outlets and ultimately protects not only the appliance, but also the house from possible damage and fire.

Use the correct wattage on light bulbs. This may sound frivolous, but it’s an important tip. Using a higher-wattage bulb than what is stated on the fixture may result in overheating and fire.

Electrical safety may seem like common sense. However, you can read the newspaper or watch the local news and see how failing to follow electrical safety rules can lead to fire. If electrical safety is not adhered to, it not only can damage structures, but also injure people by causing shock, burns or electrocution.

If you have children, make sure to stress the importance of not placing electrical items near water, never overloading electrical outlets and adhering to the rules about not touching outside wires. Make sure the Soldiers and civilians in your workplace are also aware of these issues. Don’t wait until it is too late to address the importance of electrical safety. Prevent the accident before it even has a chance to happen.

Did You Know
The newly released Department of Army Pamphlet 385-26, The Army Electrical Safety Program, dated Feb. 1, 2013, provides electrical safety guidance to protect Army personnel, facilities and equipment against electrical hazards. The publication covers a myriad of topics, including electrical safety requirements, tactical electrical safety and electrical safety for all Army activities.

Safety awareness and education are key in preventing electrical fires, injuries and fatalities. Get the facts and don’t get zapped! Check out the Army’s Electrical Safety Program publication today by visiting https://safety.army.mil/groundsafety/PUBLICATIONS/tabid/352/Default.aspx.
FLIGHT INSTRUMENTS HELP ... WHEN THEY WORK
CHIEF WARRANT OFFICER 2 JASON SHARP

It was a beautiful and sunny late October morning in Kandahar, Afghanistan, during my deployment in support of Operation Enduring Freedom. We were a scout weapons team conducting routine reconnaissance in the Arghandab River Valley. This was the last flight before going home on mid-tour leave and everything was going well.

Things had finally settled down after a long, drawn out fighting season. The "Green Zone," where most of the action took place throughout the summer, was quieter, which made it easier for us to find some of the unused weapon caches left behind by Taliban fighters. As we conducted our checks with the owning ground units, they passed information on several grids they wanted us to investigate. After we loaded the data into our system, we would systematically check the areas and report back to the ground unit if we saw anything out of the norm. This is where I should have realized something was up.

Normally, the lead aircraft conducts the reconnaissance, while the trail aircraft sets up in a position to cover lead in case they take fire. While checking out these grids, I noticed my trail aircraft was farther away than normal and not in the greatest position to cover me. Since the action had died down in the area of operations, I wasn't too worried about it. As we continued checking our last named area of interest, we informed trail that we didn't see anything. He called back and said he had something at our last NAI and wanted me to come back around to cover him. So, as we came back around, I noticed he was several kilometers away again. This should have been the second hint that something was up.

We had been flying this area of operations for the last seven months and were very familiar with it. We didn't need our moving maps to navigate through it and only really used them to enter grids to get to an exact point. As trail finished his reconnaissance, I assumed lead again.

About this time, we received a blue force tracker message from the tactical operations center ordering us to return to Kandahar Air Field immediately due to bad weather. We thought it was funny because it was beautiful in the Arghandab River Valley, but we weren't going to argue against a shortened mission.

As we made our way back through Wild Turkey Pass into Kandahar City, we could see a huge dust cloud developing in the Red Desert and increased speed to get back into KAF. As we crossed the saddle at No Drugs Pass, approximately three miles from Mustang Ramp, KAF disappeared. Within seconds, visibility was close to zero, and KAF announced the field was under instrument flight rules.

I called trail and said I was slowing and maintaining a heading toward Mustang Ramp. I had my pilot put us up direct to Mustang Ramp to ensure I was still traveling straight at it. My PI told me to come left and Mustang Ramp was three and a half kilometers to our nine o'clock position. At that moment, I realized my global positioning system/inertial navigation system was degraded and had been all day, which meant trail had been looking at the correct NAIs while we were nowhere near them.

Thankfully, we were only a short distant from the airfield and knew there were no hazards to avoid between us and the ramp. We made it in safely, but not without a major butt pucker factor for the last minute or two.

This incident could have turned out badly had we been farther from KAF. Finding out your GPS/INS system is not working properly at the moment you might have to declare IIMC is not the way you want to begin an emergency procedure.

There were several hints throughout the flight that something was up. We were consistently confirming between cockpits that we didn't see anything at each NAI. The problem was caused by the fact we weren't looking at the same ones. I just didn't put two and two together. I had become so familiar with the AO over the first seven months that I didn't rely on the navigation system, at least not until I couldn't see anymore and really needed it.

Anyone who has flown in Regional Command South knows the weather can change very rapidly and you need to be prepared to execute procedures for IIMC. Luckily, my complacency didn't injure my co-pilot, team or myself.
THE NATURE OF THE BEAST
AIRMAN 1ST CLASS JAMES KIRSHNER
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How fun is it to be in your bed, injured, on your 21st birthday? Well, that’s what happened to me when I had a dirt bike accident on June 22, 2010. My injuries consisted of a concussion, shattered collarbone, road rash and leg laceration. I was wearing all my required gear but could’ve done more to prevent what happened to me.

I was riding my Yamaha YZ125 dirt bike I had just gotten that day along with my new helmet. I had been riding bikes for about seven years in Texas, but the conditions in New Mexico were very different. It was a freak accident, and I sure didn’t see it coming!

I was riding with a few friends on the hard-packed side of an off-road course. I was going about 25-35 mph when I hit a deep rut in the dirt/sand. When I hit the rut, it jerked the handlebars to the right and shot me over the bike. The bike followed me. When I hit the ground, I’m sure I hit head and shoulders first, which gave me a concussion and shattered collarbone. Then the bike peg got a hold of my calf and ripped a hole in my leg into the muscle.

I don’t remember the accident; my friends had to tell me. I don’t remember my friends putting me in my truck, driving me to the hospital or putting me in a wheelchair. When I woke up, I was sitting in a wheelchair, and I started to fill out my paperwork. I called my supervisor, told him what had happened and then passed out again. Soon after, I woke up in a hospital bed and called my supervisor again, telling him the same story. His response was, “You might want to get your head checked out.” After getting all cleaned up and having X-rays of my broken collarbone, I was released for my seven-month road to recovery.

My advice to other riders: Even if you’ve been riding for a while, ride to your limit and never let someone try to push you to where you might get hurt. Pay attention to your surroundings. You might feel comfortable, but you never know what’s around a turn or hill. Riding with friends is a good idea because if you do get hurt, you won’t be alone and stranded.

I learned that no matter how long you’ve been riding, bad stuff can happen; it’s the nature of the beast. Don’t rush into things. Build your skills gradually, especially with a new bike or if you haven’t ridden for a while. Make sure you have everything you need to ride, including a helmet, gloves, long pants, long shirts, goggles and above-the-ankle boots. You might even want to invest in a chest protector to protect you from flying debris. A neck brace is also a good investment. It’ll stop your head from going too far to the front, back or side when you ride. Riding pants are good for breathability and will protect you from rocks and the heat of the engine. I bought all the gear because realized I’m worth it.

Editor’s note: This article was originally published in the fall 2011 issue of Wingman.
WHAT’S MODERATION?
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I love to hang out and have a few drinks with my friends. The camaraderie and bonding that takes place during those fun times is priceless. Sometimes, though, the fun can go a little too far. When it does, not only can it ruin your night (and next day, for sure), it could cost you your life.

I didn’t really drink or party in high school. I’m from a small town in Oklahoma where everyone knew each other, so it wasn’t like I had to do anything special to fit in. I joined the Army Reserve while I was still in high school. During basic training, we all walked the straight and narrow because it was the right thing to do, plus we had no leave or passes anyway.

My freshmen year of college, however, was very different. My friends lived in the dormitories and I was always there. After all, that’s where all the women were. After a decent fall semester, I decided to join a fraternity.

That spring semester was interesting — to say the least — because I was a pledge! The parties, the hazing, the humiliating activities and the alcohol brought us all together. Moderation was the last thing we thought about. I would soon learn its importance, though.

My lesson on moderation came one night during a “sneak,” which is when one or two pledges are kidnapped and taken to a secret location. The other pledges are given clues to help find the kidnapped pledges, who have to drink a beer or shot every two minutes until they are found. On this particular night, I happened to be a kidnappee. About 45 minutes passed before I was found, and during that time, there was lots of forced drinking (to fit in), puking and more drinking.

Needless to say, I don’t remember the majority of that night. Apparently, after my fellow pledges “rescued” me, I was dropped off at the dorms, where my friends took care of me. They told me I was as white as a sheet and my lips were blue. I was non-responsive, and they were too scared to take me to hospital, so they forced water into my mouth, put me in a cold shower and did their best to keep me conscious all night. They saved my life because I’m certain I had alcohol poisoning.

That experience taught me the importance of moderation. Now I take preventive measures to make sure I’m never in that situation again. If I ever feel like I might be drinking too much at a party, I just sneak away (with the assistance of a designated driver). It’s smart to remove yourself from a situation before you lose control. Knowing when to say when might save your life.

FYI

MODERATION IS KEY
MAYO CLINIC STAFF
www.mayoclinic.com

Alcohol use is a slippery slope. Moderate drinking can offer some health benefits. But it’s easy to drink too heavily, leading to serious health consequences.

It sounds like a mixed message: Drinking alcohol may offer some health benefits, especially for your heart. On the other hand, alcohol may increase your risk of health problems and damage your heart. So which is it? When it comes to drinking alcohol, the key is doing so only in moderation. Certainly, you don’t have to drink any alcohol. And if you currently don’t drink, don’t start drinking for the possible health benefits. In some cases, it’s safest to avoid alcohol entirely — the possible benefits don’t outweigh the risks. Here’s a closer look at the connection between alcohol and your health.

Health benefits of moderate alcohol use
Moderate alcohol consumption may provide some health benefits. It may:

•Reduce your risk of developing heart disease
- Reduce your risk of dying of a heart attack
- Possibly reduce your risk of strokes, particularly ischemic strokes
- Lower your risk of gallstones
- Possibly reduce your risk of diabetes
- Even so, the evidence about the possible health benefits of alcohol isn't certain, and alcohol may not benefit everyone who drinks.

Moderate alcohol use may be of most benefit only if you're an older adult or if you have existing risk factors for heart disease, such as high cholesterol. If you're a middle-aged or younger adult, some evidence shows that even moderate alcohol use may cause more harm than good. In fact, if you're a woman and drink alcohol, talk to your doctor about taking supplemental folate to help reduce the risk of breast cancer associated with alcohol use. You can take other steps to benefit your cardiovascular health besides drinking, such as eating a healthy diet and exercising.

**Guidelines for moderate alcohol use**
The 2010 Dietary Guidelines for Americans recommends that if you choose to drink alcohol, you do so only in moderation — up to one drink a day for women or two drinks a day for men. Examples of one drink include:

- Beer: 12 fluid ounces (355 milliliters)
- Wine: 5 fluid ounces (148 milliliters)
- Distilled spirits (80 proof): 1.5 fluid ounces (44 milliliters)

**When to avoid alcohol use**
Keep in mind that moderate use of alcohol doesn't mean that using alcohol is risk-free. For example, if you binge drink — such as having four or five drinks in the space of a few hours — you face serious health problems. Likewise if you drink and drive. Here are other situations in which the risks of alcohol use may outweigh possible health benefits:

- You're pregnant or trying to become pregnant
- You take medications that can interact with alcohol
- You've had a previous hemorrhagic stroke
- You've been diagnosed with alcoholism or alcohol abuse
- You have liver or pancreatic disease
- You have heart failure or you've been told you have a weak heart or dilated cardiomyopathy
- You're planning to drive a vehicle or operate machinery

Some situations are less clear-cut. Use alcohol only with great care and after consulting your doctor if:

- You have a family history of alcoholism
- You take prescription medications for a health problem
- You use over-the-counter pain relievers or fever reducers
• You have a family history of breast cancer

• You have precancerous changes in your esophagus, larynx, pharynx or mouth

**Consequences of heavy alcohol use**
Although moderate alcohol use may offer some health benefits, heavy drinking — including binge drinking — has no health benefits. Excessive drinking can cause potentially serious health problems, including:

• Certain cancers, including breast cancer and cancers of the mouth, pharynx, larynx, esophagus and liver

• Pancreatitis

• Sudden death if you already have cardiovascular disease

• Heart muscle damage (alcoholic cardiomyopathy) leading to heart failure

• Stroke

• High blood pressure

• Cirrhosis of the liver

• Suicide

• Accidental serious injury or death

• Fetal alcohol syndrome and other health problems in an unborn child

**Drink alcohol only in moderation — or not at all**
The latest dietary guidelines make it clear that no one should begin drinking or drink more frequently on the basis of potential health benefits. So don’t feel pressured to drink alcohol. But if you do drink alcohol and you’re healthy, there’s probably no need to stop as long as you drink responsibly and in moderation.
NEVER IGNORE THE CHECKLISTS
CHIEF WARRANT OFFICER 2 JOSHUA MCCOY

A slow week in the medevac world can turn crazy in a heartbeat. I know because it happened to my crew. There I was, a new pilot in command flying with a senior pilot in command who was also the company’s aviation safety officer. We were in Afghanistan flying med-chase out of a remote outpost. As a company, we rotated crews once a week, so we would spend one week out there about every eight weeks.

As a crew, we decided that if we received an urgent medevac call, I, as the pilot in command, would run to the tactical operations center and the other pilot and crew chiefs would run to the Black Hawk and prepare for departure. At the TOC, the PC would get all the information needed to complete the mission such as grid, radio frequencies, number of patients and mission approval. The PI would get the aircraft up to engine start, to include APU started, avionics on and loaded. They’d have everything on the aircraft ready; the only thing left was for the PC to buckle in and start the engines.

This particular week had been relatively slow. We had only a couple of urgent calls and routine transfers, and all were during the day. We were satisfied with the low flight time, which meant that no Soldiers were being injured or killed. On the forth night of our week-long stay, the call came.

It was 3 a.m. and we were all in deep slumber. Over the handheld radios came the call, “Medevac, medevac, medevac,” which meant we had 20 minutes to get up, prepare and take off. I jumped up, threw on my flight suit, put on my boots and I was off on a 200-meter sprint to the TOC at 7,500 foot elevation that was not enjoyable. At the TOC, the medevac aircraft PC and I received mission details and launch approval. As I arrived at my aircraft, I noticed the APU on, the pilot in the left seat and crew chiefs preparing for engine start. All was good. I put on my aviation life support equipment, climbed into the front seat and buckled my seat belt.

As I looked over at the other pilot, I noticed he was holding the controls, staring forward, completely zoned out. I asked if we were ready for engine start and his reply was, “Yep.” I looked down and noticed none of the avionics were turned on; not a big deal, just an extra step. So I said, “OK, I will turn on the radios and load the GPS, you start the engines.” I got the radios on and the GPS point loaded for the mission and he got the engines started with no issues. I asked if we were ready for departure and his reply was, “Yep.”

As I was doing the before takeoff check, I notice the engine power controls were both at idle as opposed to fly, which is where they needed to be. I looked at him, and he was still just holding the controls staring forward and zoned out. I said, “I guess I will put these (engine power control levels) to fly.” He looked up and said, “Oh, oh, oh, I was just trying to test you.” Typical SP response when they make a mistake.

We flew the mission without any further issues, and, wouldn’t you know it, he flew the entire time. The lesson I took away from that medevac call was to never get too comfortable with anyone you are flying with, even seasoned pilots. Also, always use your checklist. Taking that extra 10 seconds to double-check with the checklist saved us from a potential accident.
I've had many different jobs in my lifetime, but one seems to be ingrained a little deeper in my mind than the others. Maybe it's because it was almost my last.

When I was younger, I had the opportunity to obtain a Class A commercial driver’s license. I had no real need for it, but I took the test anyway, passed and put my new license in my wallet for potential future use. About 10 years later, I found myself unemployed and in need of a job. At that time, I had a wife and two children who were depending on me as the family's breadwinner.

As I pondered my next career move, I noticed the classified ads in the local paper were flooded with job opportunities for qualified commercial drivers. I recognized the name of one of the companies that was hiring because I'd met the owner at a social function. I figured applying for the position was worth a shot.

I don't know if it was my charming personality or the fact that the trucking company was really short of drivers, but I was hired that day and told to report at 7:30 the next morning for a road test. I passed the test and was handed the keys to a new 2002 American Class Peterbilt truck with an 18-speed transmission. It was hooked to a 53-foot box trailer. My first trip would be to carry a load from Jackson, Miss., to a warehouse in Newark, N.J.

At first, I was excited as I climbed into the beautiful white rig with red leather interior, double-bunk sleeper, refrigerator and all the latest bells and whistles. I was confident in my ability to command this beast of a truck to the East Coast and back without issue. After all, I had a CDL and passed my 10-minute road test the day before. It wasn't until I pulled out of the parking lot and onto highway that I realized that maybe I was a little too confident in my abilities.

The constant grinding of gears as I merged onto the interstate was evidence of my lack of experience and the potential dangers that lay ahead. With each additional mile, my confidence level decreased and, before long, I realized I'd gotten in way over my head. In retrospect, I should have turned around and been honest about my lack of ability and experience. The owner probably would have allowed me to spend some time riding with one of the company's more experienced drivers to improve my level of competence before sending me out on my own. However, being the type A American male that I am, quitting was not an option.

Needless to say, I had many close calls along the way, all stemming from my lack of experience. I took wrong turns, continued to grind gears and even caused a long traffic jam when I got the rig hung under a low overpass. Fortunately, only the exhaust pipe had minor damage. It wasn't until I passed the "Welcome to Tuscaloosa, Alabama" sign on the final leg of my trip that I began to relax. I knew then that I only had a few more hours to go.

By then I'd been driving for about 18 hours without sleep. To make matters worse, it was 3 a.m., it had been raining consistently for four days and I was traveling in a construction zone with limited visibility due to a downpour. Crews had been laying asphalt in the area, and there was a four-inch drop-off where they'd stopped working. I was startled when the front tires hit the drop-off and may have inadvertently turned the wheel slightly. Just after the rear trailer tires dropped off, the rig's handling started to feel weird. When I looked into my left mirror, I saw my trailer sliding to the left side of the road. I thought, "It's over for me."

Anything that happened from that moment until I was standing in front of the truck in the middle of the pouring rain with my knees shaking is a blur. I do remember clutching the steering wheel with all my strength and taking my foot off of the accelerator. Somehow, the truck had stopped sliding and corrected itself, and I was able to pull over and stop on the shoulder. After collecting myself for a few minutes, I finished my drive back to Jackson.

I learned a valuable lesson that day. Confidence in your abilities is a good trait to have. Overconfidence, however, can take you to places you don't want to go.
SAFETY MILESTONES
RICHARD ARNDT
U.S. Army Chemical Materials Activity
Aberdeen Proving Ground, Md.

Two Army organizations responsible for the safe storage and handling of stockpiled chemical weapons achieved one-year recordable injury rates of zero in June of this year. Deseret Chemical Depot, located in Utah, and Blue Grass Chemical Activity, located at Blue Grass Army Depot in Kentucky, are both subordinate units of the U.S. Army Chemical Materials Activity, headquartered at Aberdeen Proving Ground in Maryland.

The Occupational Safety and Health Administration defines a recordable injury as any work-related injury that requires treatment above first aid; is diagnosed as significant by a licensed healthcare professional; or that results in loss of consciousness, death, days away from work, restricted work or transfer to another job. The recordable injury rate is a 12-month rolling average among all the organization’s employees. For military organizations, the rate is based on injuries to Department of Defense civilians.

The safety record achieved by DCD and BGCA more closely resembles the risks associated with working in the white-collar financial sector than the hazardous waste disposal industry, which has an industry-wide RIR of 3.6.

DCD is a former CMA installation that once stored the nation’s largest and most diverse chemical weapons stockpile. That stockpile was safely eliminated in February 2012 at the Tooele Chemical Agent Disposal Facility, a chemical agent incineration facility located on the installation. After the safe elimination of the chemical weapons stockpile, the depot focused on the handling and monitoring of hazardous and agent-contaminated waste in preparation for the turnover of the installation to the nearby Tooele Army Depot in July 2013.

The depot workforce steadily decreased in size, from about 400 employees prior to stockpile elimination; then dropping to 250 in June 2012; 130 in March 2013; and 30 on July 11, 2013, when the depot was transferred from CMA to TEAD.

During the 12-month period in which the zero RIR was achieved, DCD employees completed the delivery of thousands of barrels of chemical agent-contaminated waste materials from storage structures to the Drum Ventilation System Sorting Room located in the storage area. There, workers monitored, sorted and categorized the waste for disposal. The waste was generated over the course of 70 years of chemical weapons storage and disposal at DCD.

With CMA’s chemical weapons disposal mission at DCD complete, depot employees were handed the task to clean and monitor all former chemical storage structures to ensure compliance with the depot’s Resource Conservation and Recovery Act permits. Employees cleaned and monitored 208 storage igloos and 34 warehouses that had formerly housed chemical agents. During the same period, employees were required to prepare all of the depot’s equipment for turn in. Every piece of equipment, from computers to forklifts to modular trailers, was inspected and inventoried.

The activities were a significant change from the work the employees were accustomed to prior to stockpile elimination. And with change came added risk. Leadership invested early on in work activities involving lifting and moving equipment.

DCD experienced an initial increase in its RIR as it transitioned from chemical weapons storage operations to closure operations, but the safety culture embraced by employees enabled them to identify new risks and react quickly. Individuals donned personal protective equipment even when moving simple things like pallets because there are preservatives in the wood that can cause skin irritation. Employees and leadership learned that just as they needed PPE for chemical operations, they needed it for standard operations. As the months rolled by without a recordable injury, employees began to see that the goal of achieving a zero RIR was within reach. Leadership emphasized to the workforce that nothing they were doing was worth the risk of life or limb. It was a continual focus on safety and never letting down their guard.

While DCD employees spent the last year preparing for closure following completion of the stockpile destruction mission there, the 121 employees at BGCA stored and managed a chemical weapons stockpile comprised of 523 tons of weaponized chemical agent. BGCA employees are responsible for the safe and secure storage of one of the nation’s two remaining chemical weapons stockpiles, which are scheduled for destruction under the DoD’s Assembled Chemical Weapons Alternatives program. Among the chemical weapons in the custody of BGCA are the nation’s last remaining stockpiled nerve agents.
BGCA employees routinely monitor the chemical storage igloos using Real Time Analytical Platforms — vehicles equipped with chemical agent monitoring equipment — to check for leaking munitions. When required, BGCA employees conduct leaker isolation and overpack operations inside the storage igloos. Additionally, the activity operates its own warehouse and maintenance facility where PPE is cleaned, inspected and repaired. The activity also maintains its own self-contained breathing apparatuses.

The Blue Grass stockpile will be destroyed by ACWA’s Blue Grass Chemical Agent-Destruction Pilot Plant, which is under construction. BGCA employees will perform many tasks in support of the destruction effort, and training on unique equipment to be used for M55 rocket separation operations is now underway. Likewise, facilities in the chemical weapons storage area are being upgraded to prepare for increased use.

With all the construction going on, mitigating risk and safely executing the many tasks necessary to the unit’s mission can only be accomplished by a professional workforce. Employees are full partners with leadership in the safety process. An employee safety committee meets regularly to discuss employee safety concerns and elevate issues and recommendations to leadership. Additionally, safety suggestion boxes are placed in various locations in the activity operations area. The boxes generate excellent suggestions that are individually logged and tracked.

The cross-pollination of safety ideas among various CMA elements was one of the factors that enabled their workforces to excel. For employees and leadership at both DCD and BGCA, their safety achievement can be attributed to teamwork.
MAKE SURE IT’S A ‘REAL’ FIRE
CHIEF WARRANT OFFICER 2 TIMOTHY ESQUIBEL
C Company, 1-171st General Support Aviation Battalion
Santa Fe, N.M.

Emergency procedures are in place for a reason, and aviators know how important it is to run the checklist in order to make the right decision. One day we arrived at the Corpus Christi Army Depot, Texas, to pick up a UH-60. We located the aircraft and met with the maintenance staff to review the depot work that had been done. There was plenty of time left in the day to review the log books and the aircraft, so I and two crew chiefs, who had come along with us, conducted a preflight inspection.

The aircraft appeared in good condition. We felt the depot staff had done a great job preparing the Black Hawk and they were eager for us to accept ownership. After we completed the preflight and logbook check, we advised CCAD that we would make our first test flight the following morning.

We arrived at CCAD the next morning and immediately began another preflight inspection. We felt the thorough preflight and preventive maintenance daily went above the standard and was more than adequate for the flight, considering we inspected the entire aircraft twice on consecutive days. At that point, our maintenance test pilot was prepared for the initial flight and the crew was comfortable with the aircraft.

We had the aircraft towed to the ramp and began developing a flight plan that would include a flight over the test flight area where the maintenance officer would conduct his maintenance checks. The MTP and I looked over the route; it called for us to depart, fly low over the edge of the ocean and then out toward the edge of an island. From there, we would climb to 10,000 feet above ground level and begin a pattern to accomplish all the checks needed to ensure the Black Hawk was ready to be transferred to our unit.

At that point, we all sat down and conducted a thorough crew brief discussing the route, weather, all tests to be performed, emergency procedures and comfort level of each crew member. This was important considering none of us had flown this helicopter before and it was coming out of the depot. However, the entire crew was comfortable with all that we had done to prepare for the test flight and the follow-on flight back to Santa Fe, N.M.

We proceeded to the UH-60 and began an engine run-up, which was smooth and uneventful. We conducted all necessary ground checks and waited for departure clearance. At that point, I took the controls and we departed CCAD for the test flight area. The en route flight was smooth and we began to feel comfortable with the performance of the helicopter.

Once we arrived in the test flight area, we started a climb to 10,000 feet AGL, and all indications and instruments were normal. The MTP reached up to retard the power control lever on the No. 2 engine, and the master fire warning light came on. The crew chief in the back announced the fire light from his position. I immediately visually confirmed the light and announced to the crew in the back, “Confirm we have a fire.”

The first thing that went through my mind was the warning written with this type of EP: “Confirm you have and actual fire before you shut down an engine.” I looked up and confirmed the No. 2 T-handle was red, indicating a fire. At that point, the crew chief announced, “I confirm we do have a fire.”

We began an immediate decent in an S pattern to visually look for smoke. We could not see any smoke; however, the fire light still indicated a fire. The MTP took the controls and began communicating with the tower, advising them we had indications of a fire. As we descended rapidly, the No. 2 engine was indicating normal operations. Within seconds of discussing the situation, the MTP and I decided to not shut down the No. 2 engine. At that moment the crew chief said we may not have a fire. We did not shut down the No. 2 engine because it was indicating normal activity and functioning properly and the fact the crew chief, at the last second, advised we may not have a fire.

The fire department and rescue crews were waiting when we landed safely back at CCAD. After shutting down and looking over the No. 2 engine, we discovered a label wrapped around a fuel drain line was too close to the engine and had caught fire and
burned. The label was adjacent to the fire detection sensor which kept the fire warning light illuminated. The engine was not on fire, but the label did incinerate. The fuel line was replaced and the following day we had a successful flight.

This incident reinforced what we were taught during training: When you have a situation, remember your training and follow the checklists. We’ve heard that before, but, trust me, it works.
ACCIDENT BRIEFS

AVIATION

MQ-1C
Class A
The contractor-operated system crashed short of the runway after it experienced loss of fuel rail pressure and a FADEC degradation during flight. The crew initiated emergency procedures for return to base, but the system suffered engine failure due to continued loss of fuel pressure.

UV-20A
Class C
The aircraft sustained significant damage after crashing into a tree line on takeoff during single-pilot training.

GROUND

FIRE
Class A
A Soldier died from burn injuries suffered in a fuel point fire. The Soldier was escorting a fuel truck to a fuel pump when it hit the pump and a fire erupted, followed by subsequent explosions.

PERSONNEL INJURY
Class A
A Soldier drowned while swimming in a lake. Bystanders tried to help the Soldier but could not reach him.

A Soldier died after the boat he was in capsized. The Soldier, along with two other Soldiers and an 11-year-old dependent, were all wearing personal flotation devices.

A Soldier was killed while participating in a recreational parachute jump with a skydiving club. He reportedly struck his head on the tail section of the aircraft as he exited.

A Soldier died due to autoerotic asphyxiation.

A Soldier drowned while swimming with fellow Soldiers who were practicing for a sapper competition.

A Soldier drowned after he fell from a friend’s houseboat. Alcohol was reported as a contributing factor.

A Soldier died while handling his .40-caliber handgun. He was showing the privately owned weapon to fellow Soldiers when it discharged and the round struck him in the head.

DRIVING

PMV-4
Class A
A Soldier died after his vehicle crossed the centerline in a curve, left the road, struck an embankment and overturned multiple times. He was not wearing a seat belt and was ejected from the vehicle.

PMV-2
Class A
A Soldier died after he rode over gravel on a rural road and slid into a guardrail. The Soldier was wearing a helmet.

A Soldier was killed when an SUV pulled into his path of travel. The Soldier was wearing a helmet.
A Soldier died when he lost control of his motorcycle, went up an embankment and struck a light pole. Other motorists reported speed as a factor in the accident.

A Soldier died when he lost control of his motorcycle in a right-hand turn at a high rate of speed, left the road and struck a culvert.

A Soldier was killed when a vehicle entered his lane on a major highway, causing him to swerve and lose control of his motorcycle.

A Soldier was killed when he lost control of his motorcycle, fell to the road and was struck by a rider following him. The other rider then crashed.

**ATV**

**Class A**

A Soldier died and another was injured when their ATV, which they were riding on a local highway, left the road and struck a tree. Alcohol and failure to wear helmets were reported as contributing factors.
ACCIDENTS
DON'T TAKE HOLIDAYS
FROM THE DASAF
CHANGE — COUNT ON IT

Going into the holiday season, our Army has much to be thankful for, especially our Soldiers. We knew fiscal 2013 would most likely be a good year for safety, but the final outcome — 136 accidental fatalities, a 15 percent decline from the previous year and the lowest number on record — was an historic landmark. Such a remarkable achievement during a year of relentlessly high operations tempo, to include the twelfth year of combat, happened only because of the hard work and commitment of our entire Army Team. I thank each of you for your proactive part in making it possible.

Success can breed complacency, however, and we must keep that in mind in the days, weeks and months ahead. Just a few years ago, we were in the midst of a two-front war and the Army’s worst safety performance in recent memory. The situation has changed dramatically since then, and our safety culture as a whole has continued to evolve and adapt to meet ever-shifting conditions. Change is the one constant; there will always be a new challenge to adapt to and overcome. How we plan, prepare and respond is what saves lives.

That being said, I am a little concerned after the first few weeks of fiscal 2014. The numbers aren’t alarming, but they’re not moving downward either. While I’m confident we can achieve the 10 percent reduction in accidental fatalities mandated by senior leaders in this year’s Army Safety and Occupational Health Objectives, time is notorious for slipping quickly away. We have to do what we know works, do it better and do it now to fulfill the vision and duty our leaders have entrusted to us.

Don’t let time run out for your Soldiers — start preparing now for whatever changes are in store for your formation. Your initiative will set the tone for what lies ahead, whether it’s a combat rotation, modified training program or leadership turnover at any level. Evolution in safety doesn’t happen overnight; it’s a series of subtle adjustments over time that benefit the health and well-being of all. Maintaining familiarity while building upon and improving existing programs demands that a positive safety culture be in place.

While off-duty PMV-4 accidents generally dominate most accident reports during winter, we’ve seen a surprising number of cold-weather motorcycle fatalities during the past few years. Strive for open and honest communication with your Soldiers and their first-line leaders about not just the typical winter trends, but all activities they may be planning. Based on this dialogue, efforts like adapting your seasonal PMV program to fit your unit’s needs can be a worthwhile investment that will pay dividends both in reducing risk and operationalizing your safety culture.

Change is a constant variable at the USACR/Safety Center, too. We’ll share information and tips to help you tackle several seasonal safety issues in the annual Army Safe Winter Campaign, launching in early December at https://safety.army.mil. We’re also gearing up for full implementation of the Globally Harmonized System, a program that will standardize the labeling and classification of chemicals and other hazardous materials across the force. The deadline for training all personnel on new requirements is Dec. 1, so use these next few weeks to ensure your Soldiers and civilian employees are trained to standard.

We’ll also be saying goodbye to Command Sgt. Maj. Rick Stidley after the holidays. I cannot express how fortunate and grateful I am to have served with this fine Soldier and leader during the past year and a half. Rick has established an outstanding rapport with Soldiers and Families across the globe during the past three years, making a real difference for safety in all he’s done. I know his dynamic leadership, enthusiasm, professionalism and dedication to all things Army will be greatly missed. I also know his successor, Command Sgt. Maj. Leeford Cain, will seamlessly transition, continuing our great tradition of NCO leadership in safety and forging his own legacy for the future.

Thank you again for helping achieve our Army’s safest year on record. I look forward to working with you to make even further progress in keeping our great Soldiers in the fight. Have a safe and blessed Thanksgiving!

Army Safe is Army Strong!

TIMOTHY J. EDENS
Brigadier General, USA
Director of Army Safety
ACCIDENTS DON'T TAKE HOLIDAYS
JERRY L. ZINGG
Marine Corps Base Quantico
Quantico, Va.

It’s that time of year where many of us are caught up in holiday routines and tend to take seasonal hazards for granted. Doing so, however, can mean the difference between a happy holiday and tragedy. Statistics show that mishaps occur more frequently during the holiday period. A little common sense, combined with some advanced planning, can help accident-proof your holidays, making them safer for you, your family members and visitors.

Fire
The National Fire Prevention Association estimates 3,000 Americans die in home fires annually, with nearly 40 percent of those deaths occurring between December and February. The NFPA also reports that during 2006-10, Christmas trees were the direct cause of about 500 home fires each year. So, before you pick out a Christmas tree this year, it’s important to know a few tips to ensure you make a safe selection.

If you want a natural tree, pick a fresh one. Make sure it is deep green, has a strong pine scent and its needles don’t fall off when you touch it. When you get it home, cut about two inches off the bottom at an angle. Fill the tree stand with water and keep it full every day. Never place a tree near a fireplace, radiators or heaters, and keep it away from doorways and the room’s main traffic areas. Be aware that some artificial trees can also burn, so check them for flammability and follow all included safety precautions.

When it comes to decorating with electric lights, take special precautions such as never hanging them on metal trees. Avoid overloading outlets with electric decorations, and replace cords that show signs of wear. Just because the lights worked fine last year doesn’t necessarily mean that they’re good now. This is especially true for outdoor lights and cords that are subjected to rain, ice and strong winds.

Never run cords under the carpet, and turn off all decorative lights before leaving the house or going to bed. A Christmas Eve fire in Dallas a few years ago took the lives of a 31-year-old mother and her four young daughters. The cause of the fire was traced to an overloaded extension cord, which ignited their decorated tree.

If decorating with candles, ensure you keep them at least 12 inches from anything that can burn such as drapes, towels or clothing. Candles should always be in a sturdy holder and placed where they cannot be knocked down. Never leave a lit candle unattended and always supervise children near any flame. Battery-operated flameless candles — which can look, smell and feel like the real thing — are an attractive alternative for some decorators.

It’s also a good idea to consider the age of your decorations. If you’ve had them for many years, it might be time to invest in a newer, safer set. Before regulations in the late 1970s, items such as tinsel, artificial icicles, glitter and painted figures often contained dangerous levels of lead, chromium, antimony, cobalt and even arsenic. Angel Hair (artificial snow) contained glass filings, and some brands were even comprised of asbestos fibers. Fire salts, which produce a multicolored effect when sprinkled on a log fire, contain heavy metals that may cause severe stomach distress if ingested.

Fireplaces and space heaters are also popular during the holidays. Keep these tips in mind if you plan to use yours:

• Before starting a fire, remove all combustible decorations from the area and be sure the flue is open.

• Keep a screen in front of the fire to ensure sparks are contained.

• Have your fireplace and chimney inspected and cleaned on a regular basis.

• Never allow a fire to smolder overnight.

• Use space heaters with great caution, placing them at least three feet from combustible materials such as blankets.
• Ventilate fuel heaters as recommended by the manufacturer. Install a carbon monoxide detector near the fuel heater.

• Keep a fire extinguisher handy.

If you allow smoking in your home, provide ashtrays for the smokers and ensure cigarette and cigar butts are fully extinguished before emptying into the trash. Many house fires occur after holiday parties, when a lit cigarette falls into a sofa or bed and smolders undetected while everyone is asleep. A multi-purpose fire extinguisher is a good investment and should be kept handy in case of fire. Make sure you and your family members learn how to use extinguishers properly. A smoke detector is another potentially life-saving device every home should have. The NFPA recommends installing smoke alarms on every level of your home, including the basement, making sure that there is an alarm outside every separate sleeping area. Test alarms at least monthly by pushing the test button. Also remember to have an escape route in the event of a fire. It’s important everyone in the house knows the route and practices it.

Slips, Trips and Falls
Between icy sidewalks and the increased use of ladders to hang decorations, slip, trip and fall injuries are another concern during the holidays. According to the Centers for Disease Control and Prevention, falls are the leading cause of fatal injuries in the home, claiming 6,600 lives each year. Placing night lights throughout your home will help guide the way in the middle of the night. Toys and other items that could be a trip hazard should also be put away so they don’t obstruct the walking path. If using extension cords, never place them in walkways. Outdoors, when there’s ice or snow, shovel paths, put down sand or salt and make sure the area is lit. In addition, be sure to use extra care when hanging outdoor lights and decorations from the top of a ladder.

Toy Safety
Even the smallest revelers aren’t immune to holiday hazards. The Consumer Product Safety Commission reports that 262,300 children were treated in hospital emergency rooms in 2011 due to toy-related injuries. Parents should always supervise their child’s play and expect the unexpected. Inspect toys regularly to ensure all safety devices remain in place. If Santa brings a bicycle, skateboard, roller blades or scooter this Christmas, make sure he also provides properly fitted safety helmets.

Alcohol
Despite widespread publicity about the dangers of drinking and driving, traffic accidents and deaths increase dramatically during the holidays. If you are hosting a holiday party that will be serving alcohol, try to discourage guests from drinking too much. Discuss a sober designated driver plan ahead of time and be ready to call a cab or arrange a ride for those too drunk to drive. Also provide a variety of non-alcoholic drinks such as juices, tea, sodas and bottled water. Never force alcoholic drinks on anyone. Starchy foods such as cheeses and crackers which will help absorb the alcohol, so be sure to include them in your holiday spread.

Close the bar an hour before the party ends and provide a place to sleep for those individuals that may have had too much to drink. Remember, time is the only true sobering method.

Be smart this holiday season. Follow the safety advice provided with the equipment you use, merchandise you buy and activities you plan. Keep your home, family, guests and yourself safe and healthy this and every holiday season!
THE RIGHT CALL
CHIEF WARRANT OFFICER 3 MARK SKALA
B COMPANY, 2-4 GENERAL SUPPORT AVIATION BATTALION, 4TH INFANTRY DIVISION
FORT CARSON, COLO.

If you’ve been in the Army aviation branch for more than a day, you’ve probably heard, “Those who have and those who will.” Here’s my story:

It was a day like no other for my crew and me. Why? I was the Army's newest member in the pilot in command club. It was January 2011 at Shindand, Afghanistan, and I was eager to shake off my new PC butterflies.

The mission was a standard air mission request to local pick-up zones in support of Regional Command-West, something I had been doing for five months and, as a pilot, was very comfortable doing. But things were different now. I was the guy who called the shots and was ultimately responsible for the new CH-47F and the lives of my crew and passengers.

At 5:30 a.m., we confirmed our air mission request and received an S-2 threat brief update and weather briefing. Everything, even the weather, looked good. But if you have ever flown in the mountains of Afghanistan, you know the weather is very unpredictable and can change at a frantic pace during this time of year.

By 8:40 a.m., the blades were turning, and at 8:59 a.m., we called tower requesting takeoff. Our first leg of the mission called for us to head north to Herat, just 59 miles away, with small mountains rising “only” 6,000 feet above mean sea level. Remember when I said the weather report was good? The Air Force guys try hard with what they have, but it’s more like rolling the dice than a science. At least the guys went outside to take a look instead of just sitting at their computers.

Shindand elevation was 3,850 feet MSL, with the first set of mountains only 12 miles to the north at 5,000 feet MSL. We received clearance for takeoff and were on our way. The weather looked good and ceilings were as reported. After arriving at Herat, we saw the next mountain pass was socked in and knew our day was done.

I called operations and received clearance to cancel the rest of our mission, then contacted the weather office back at Shindand to ask about the current weather there. They reported it was good. We headed back and, as we flew over the last mountain pass 12 miles north of Shindand, it happened. It was snowing!

Panic set in immediately. I then remembered something very important from flight school. “The urgency of certain emergencies requires the immediate and instinctive action by the pilot. The most important single consideration is helicopter control. All other procedures are subordinate to this requirement.”

Until you are in a situation like this, you will never be a true believer of that phrase. Luckily, I and the other pilot announced visual contact with the ground and used exceptional crew coordination. During this, my sister ship called to let me know they lost their UHF and VHF radios. That meant that if I decided to do a GPS approach, I would have to make their radio calls as well as my own for spacing during inadvertent instrument meteorological conditions. That wasn’t something we really trained for. Murphy’s law was in full effect!

Taking the radio problem into consideration, as well as the fact that I still had visual contact with the ground, I decided to push on. But now we were 200 feet AGL at 60 knots airspeed with less than one-quarter mile visibility, only four miles north of the forward operating base. I knew the terrain here and had my multifunctional display on terrain avoidance. I had flown in the same area the previous day and knew it was clear of hills and antennas. I called the tower and let them know where we were and gave a pilot report with a request for special visual flight rule entry.

The snow thinned when we were about two miles out, and I saw the maintenance facility and, finally, the runway. This made me think of another famous quote: “It’s better to be on the ground wishing you were flying than flying wishing you were on the ground.” Truer words had never been spoken. I still can’t say I have experienced IIMC, but we were close. Looking back, I should have just done the GPS approach even if I had to pick up my Chalk 2 radio calls.
I thank my crew for excellent crew coordination and my co-pilot for picking up the workload for overall mission success. Even though you can’t train for every curveball Mother Nature throws at you, you can — and hopefully will — revert back to your training in high-stress situations and make the right call.
NEVER QUIT LEARNING
MAJ. DANIEL R. OSTROWSKI
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As a kid, I used to read my dad’s motorcycle magazines, looking at the pictures over and over. I remember spending time in my parents’ garage, admiring his motorcycle and sneaking every opportunity to grab a hold of the handlebars and climb onto the seat. I would picture myself cruising down the road on that two-wheeled machine, “straightenin’ the curves” and “flattenin’ the hills” like the Dukes of Hazzard used to do. When I got a little closer to driving age, my dad made a deal with me. If I passed the Motorcycle Safety Foundation’s Basic RiderCourse, I could ride his bike. I couldn’t wait.

Dad had been a motorcycle rider for years, but when life got in the way, he wasn’t able to have a bike. When he finally got back in the saddle, he signed up for the Basic RiderCourse to familiarize himself again. It was in that class where he truly learned how to maneuver the bike — from simple starts and stops to looking through the turns, countersteering at higher speeds and properly turning at slow speeds. He learned how to ride a bike safely, and it was the confidence that he developed in that course that encouraged him to make that deal with me. He believed that if I could pass the Basic RiderCourse and earn my motorcycle driver’s license, then he could trust me with his bike. More importantly, he knew I would then have the skills to operate the motorcycle safely on the road.

I was so proud of myself when I passed the course and got my license. It felt great to ride that bike to high school and see my classmates’ heads turn when I pulled up on two wheels. In the nearly 20 years since, I’ve had several bikes, but I never took another instruction course. I just never rode my bikes on post. However, upon return from my last deployment and subsequent assignment to the U.S. Army Combat Readiness/Safety Center, I decided I wanted to ride more often. That meant I’d have to ride on post, and to do that, I’d have to take the Basic RiderCourse again.

Upon arrival to Fort Rucker, and prior to getting too busy at work, I signed up for the course to get myself legal. It would be no exaggeration to say that I had twice as many miles as the rest of the students in my class combined. There were some true beginners in there! However, it also would be no exaggeration to say that I learned something during every block of instruction we covered during those two days of training.

The instructors were excellent. They understood everyone’s individual skill level and tailored their instruction to each rider. They were able to get the most out of us on each skill, resulting in great improvements from everyone by the time we completed the final skills test. I also left the class a better rider. The fact that I was already a so-called “experienced rider” and had taken the training previously had no bearing on what I took away from the course. I learned a lot.

At the end of the course, I spent some time with the instructors talking about riding and different techniques for cornering, braking, accelerating out of turns, etc. I couldn’t wait to take the next class — the Advanced RiderCourse — and signed up for it as soon as I could. That course had a similar format, but it was even better because I was able to ride my own bike. Today, I’m more than just a better rider; I’m a better rider on my own bike.

I cannot emphasize enough how good these courses are for riders. While they may be mandatory for us who serve, I do not hesitate to recommend them to everyone I meet who wants to ride a motorcycle. No matter your experience level, these courses will make you a better rider. I look forward to taking more classes in the future. The way I look at it, the more I learn, the safer I’ll be. The same will be true for you. SportBike RiderCourse, anyone?
For me, my "after-Army" plans for the future started in the summer of 2007 at Camp Arifjan, Kuwait. During this deployment, time seemed to stand still. It was during a 115 F day, while daydreaming about the Rocky Mountains, that I decided to become a national ski patroller. After all, I'd spent a lot of my younger years on the ski slopes in Utah. Even though I hadn't skied in 20 years, I still considered myself a good skier and was confident my skills would come back to me in no time.

After my deployment, I was released from active duty and returned to Salt Lake City. I immediately put my plan into action and completed emergency medical technician certification. I then found a selection event at the Brighton Ski Resort, which hosts an open house to pick ski patrol candidates.

At the start of the day, I was first in line with 20 other candidates, looking down an expert run called Hard Coin. As the lead instructor patroller pointed down the steep, powder-filled run through the trees, I asked myself, "What are you doing? This is insane!" I snapped back to reality and pulled it together. It was now time to shine.

Patrol instructors lined the run when I stepped off. I flew through the trees and my skis pointed perfectly downhill. I pressed the snow for steady speed and good rhythm and had an amazing run. Throughout the day, I had extreme runs, while instructors corrected techniques and evaluated my skiing ability. While skiing came back to me quickly, I realized I needed to be in better shape.

Following the open house patrol selection process, I was asked to participate in the candidate training program. During the next eight weeks, I skied with the best ski patrol instructors. I was trained and qualified on toboggan handling and completed my outdoor emergency course. For the next three years, I was a member of the National Ski Patrol. I saw many accidents during my time with the patrol. Sadly, a common factor in those accidents was most could've been prevented.

No matter your skiing skill level, it's important to prepare yourself before heading out on the slopes. Whether you're a novice or a rusty experienced skier, start your first day on the slopes with an instructor. Also wear the proper safety equipment. Helmets can save lives and prevent a traumatic brain injury. Choose goggles that fit and ensure their lenses are adequate for varying sunlight levels. Select skis for the conditions you plan to ski. Remember, powder skis do not perform on groomed runs as well as alpine skis. Dress in layers with gear that is performance based and stay physically fit during the winter months. And don't forget the sunscreen!

Being on the hills all day can be physically challenging. If you live on the coast and fly to a ski resort, remember the air gets thinner at 10,500 feet. While you are there to have a good time, never ski impaired. Collisions and injuries happen in a flash, and in my experience, crashes usually involve innocent skiers. It's important to realize that you are still legally responsible for the injuries you cause. Practicing a little safety will help you have an enjoyable skiing adventure.

DID YOU KNOW?
The National Ski Patrol is the leading authority of on-mountain safety. The NSP is dedicated to serving the public and outdoor recreation industry by providing education and accreditation to emergency care and safety service providers. The organization is made up of more than 28,000 members serving over 650 patrols, including alpine, Nordic and auxiliary patrollers. The NSP members work on behalf of local ski and snowboard areas to improve the overall experience for outdoor recreationalists. To learn more, visit the NSP website at http://www.nsp.org/slopesafety/slope_safety.aspx.
JUST ANOTHER LANDING
WARRANT OFFICER MICHAEL BROWN

When you are downrange in an unmanned aircraft system platoon, everything gets repetitive. You launch your aircraft, fly your mission and land your aircraft several times every day. The platoon is usually isolated from the rest of your unit and everyone knows the rules of the flight line. It’s when visitors arrive that problems arise.

It was early in the afternoon when our vehicle mechanics came to the flight line from the motor pool to perform maintenance on one of our vehicles we use for flight operations. However, they did not follow the posted procedures for checking in at the hangar so they could be escorted to the taxiway we were using for UAS launch and recovery operations. The mechanics decided to drive unescorted all the way to the taxiway. One of my operators and the crew chief saw them heading toward the taxiway. The operator ran toward them, yelling for them to stop because I had just turned my aircraft onto final approach. Fortunately, they stopped in time and my operator stayed with them while I landed the aircraft.

Once the aircraft was on the ground, I began my post-flight checks and waited for the crew chief to report that he had the aircraft secure. The call never came, so I called him for verification. He radioed back, saying, “Umm, aerial vehicle is on the ground, but you and the mission coordinator might want to come out here.” From that, I knew I was about to go to the cache to “pee and bleed.”

I completed my post-flight checklist and met the crew chief, mission coordinator, my other operator and the mechanics at the end of the runway. That’s when I saw my aircraft leaning in a hole with the arresting strap broken. All of them had the same dumbfounded look on their faces. The first thing I said was, “What happened out here? Everything looked good inside.” Nobody could tell me anything. So, I looked around.

The first thing I noticed was a large pickup truck sitting perpendicular to the taxiway. I couldn’t see the Tactical Automated Landing System, which is what lands the aircraft and steers it down the runway until it stops. That’s about the time I lost it. One of my operators and my crew chief allowed a truck to be parked so as to block the line of site between the TALS and the aircraft, preventing the TALS from steering the aircraft after landing. This resulted in the aircraft drifting to the right, missing the arresting strap and catching an assembly guide rope. The rope tensioned and broke, causing the aircraft to turn, just missing the arresting drum on the edge of the taxiway, which holds the braking system that stops the aircraft. The aircraft then ran off the taxiway and into the dirt.

Luckily, the aircraft was not damaged and the broken rope was an easy fix. It could have been a lot worse, though. Not only could the aircraft have been damaged, but at that point in the recovery, the crew chief or those mechanics could have been struck while it was still traveling at 50-60 knots.

In my opinion, this all happened because of complacency and lack of situational awareness by my crew and the failure of the mechanics to follow posted procedures. No matter how many times a team completes a task successfully, they must always maintain their vigilance.
COVERING THE BASES
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Being in the National Guard, I’ve seen the emphasis placed on private motor vehicle safety because of the vast distances some Soldiers must travel to and from drill. I’ve also noticed how that emphasis shifts when those same Soldiers are placed on orders at an armory or in the field for an extended period versus traveling daily to and from training. It’s easy to understand why a safety program would tailor training for the hazards most frequently encountered in a particular environment. Naturally, Soldiers traveling to drill will receive higher doses of PMV safety than Soldiers who are required to drive less. The more time Soldiers spend on orders, doing Army things with Army stuff, calls for a different focus. However, I believe this focal shift tends to be a breeding ground for the proverbial “Murphy-ism.” The following story is a breakdown of how this shift in safety focus affected my unmanned aircraft system platoon last spring.

We were conducting our three-week reset training at Dugway Proving Grounds in Utah. Our mission was to re-wing, receive new laser designator training and re-establish our post-deployment home station readiness level progression. The training was on Michael Army Airfield, which is located about two hours from our home station. We convoyed our tactical vehicles to Dugway and took two additional 15-pack vans to use in and around the flight line.

We conducted the necessary safety briefing for the trip, but once we arrived, the platoon transitioned into a more Army training safety focus. We had a risk assessment that included the full barrage of hypotheticals, as well as plans for weather, heat and physical training injuries and flight line procedure. We even considered possible encounters with snakes, poisonous spiders or scorpions.

When we reached our first weekend, I thought it was a good opportunity to give my Soldiers some well-deserved downtime. We planned a good time to convoy to home station in our 15-pack vans, and I conducted a safety briefing for the road back. Once we made it to home station, we made that quick transition into a safety focus for our homes and on the roads. We then all went our separate directions, which is when we were bitten by the hazard.

As I traveled southbound on the freeway, I noticed traffic slowing. I suspected an accident, but it never crossed my mind that it could be one of my Soldiers. As I approached the wreck, I saw what used to be a huge Dodge Ram Mega Cab pickup. Now, with its front end smashed and wheels torn off, the truck was almost unrecognizable. What I did recognize was my Soldier standing outside the truck. He appeared uninjured, but confused. He had just been struck by a driver in medical distress. I stopped, helped where I could and waited for emergency vehicles to arrive.

We were fortunate that day. My Soldier was fine. But if his truck were any less of a vehicle, this accident might have been much worse. I couldn’t help but think about how we, as Soldiers, safely perform hazardous tasks with dangerous equipment all the time, but could still be taken out in a PMV accident just a mile from home.

I took this lesson back to my platoon the following week, emphasizing the risk on the roads as we headed home on our second weekend. I was able to drive the point home when I showed my Soldiers the pictures I took at the accident scene. I was sure this would be the teaching tool I needed to reduce our odds of another accident — that is until we returned to the armory for the trip back to Dugway. This time, one of my Soldiers was rear-ended while exiting the freeway. The Soldier’s car was totaled, but, fortunately, he wasn’t injured.

The lesson I learned from these experiences is accidents happen all the time, so maybe shifting our focus on what we perceive as the priority hazards isn’t the best approach. It is important to cover all the bases when we address safety. We can’t eliminate the mishaps, but we can definitely reduce the frequency and severity. I was fortunate to have Soldiers behind the wheel that were well-rested, sober and wearing seat belts — all of which we discussed in our safety brief.

My unit now understands that there are many risks out there that we must identify. Each one deserves equal respect. You never know which one might get you.
THE THREAT OF COMPLACENCY

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I'm not sure of the statistics, but there's no doubt in my mind that numerous Army accidents have occurred because we, as Soldiers, have become complacent in our everyday activities. If we stop for a moment and think, we can probably remember instances when we were complacent. Many of our jobs are repetitive in nature, and the more we repeat what we're doing, the better the chance we become complacent without even realizing it.

A few years ago, as we began the back half of a deployment in Afghanistan, there were numerous instances of complacency among Soldiers in my aviation unit. The command quickly realized this hazardous trend and implemented control measures to prevent needless accidents. The same school of thought should be applied at home base. We need to keep ourselves from becoming complacent where we feel most comfortable. Many Soldiers may wonder why commanders and noncommissioned officers keep reiterating that it's important to always keep a fresh eye open. It's because a majority of us (leaders) realize some tasks are repetitive and we've seen the effects of complacency. The bottom line is all Soldiers, no matter their rank, need to remain vigilant.

I'm sure we've all heard the statement, "We've always done it that way." Safety shouldn't be treated like a light switch that you can turn on or off. The safety switch must be “on” continuously. Just because we feel safe doesn't mean we are. On the contrary, feeling safe all the time could be the biggest threat to our well-being because that means we are drifting into a complacent mode.

One key to avoid the complacency trap is to form safety habits. Putting these habits into action daily, 24/7, will help save lives. Supervisors should do routine spot checks because Soldiers do what they know will be checked.

J.C. Ryle wrote, "Do not suppose that it needs some great scarlet sin to bring you to the pit of destruction. You have only to sit still and do nothing, and you will find yourself there at last." I challenge all leaders, myself included, to fight and keep our Soldiers safe from the evil of complacency.
WHEN ‘ROUTINE’ CHANGES
CHIEF WARRANT OFFICER 2 EMILIO NATALIO
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Fort Campbell, Ky.

A simple air mission request from Seoul Air Base to Osan Air Base, with an additional drop off at Yongsan Army Garrison, ended up being a long evening for our crew. The flight was normal and entailed picking up passengers at Osan and dropping them off at Yongsan, with a return to Osan later that night. We performed checklist items before the flight; the crew chief conducted his preflight, while the pilot-in-command and I completed the risk assessment, flight plan and pre-flight of the night vision goggles. We were briefed for the passenger pickup and drop-off, along with day and NVG training before passenger pickup.

After our preflight by the checklist, we ran up the engine and completed a health indicator test check, then departed Seoul Air Base en route to Osan. Upon reaching a checkpoint, we called Osan tower and were cleared to land. On short final, the tower told us to turn left immediately because they had a jet coming in that had either just called in or they had forgotten about.

We turned out to the left and made a wide turn and continued back in. After landing, we rolled up to the VIP parking area and our crew chief jumped out, greeted the passengers and ensured they were secured in the cabin. We then flew to Yongsan, dropped off the passengers and departed to begin the training leg of our flight.

We flew around Prohibited Area 73 up various routes and the pilots swapped duties between navigating and being on the controls. The flight route took us near an area we use for Bambi Bucket training, the site of a dam. We made three landings at the location during the day, then it was time to go to Camp Stanley and refuel. After refueling our aircraft and ourselves, it was dark, so we goggled up and continued our training flight under NVG. We retraced our previous daylight route and returned to the dam.

I was on the controls for an approach to land and came in too fast and really steep, so I announced I was going to go around. I then made a second attempt at landing. Again, I came in too fast and steep, so I made another go around.

After my second failed attempt, the PC decided to land the aircraft. On our downwind leg, we did a before-landing check and started our approach. I was sitting in the right seat, scanning the area. There was a structure to our immediate right with a tin roof that we had avoided during our three day landings. We didn't want to blow off the roof or damage the structure.

As I scanned to the right and left out the nose of the aircraft, the crew chief announced, “We are coming in hot.” We smacked the ground and rolled forward a couple of feet, and I struck my head on the door. After the aircraft stopped moving forward, the PC leveled the rotor disk and I asked that everyone say if they were all right or injured. The crew chief said over the internal communication system, “I'm OK.” The PC said the same. I told them I was all right, just a little jarred. Then the crew chief announced, “Emergency engine shutdown.”

At this point, I had the controls and the PC shut down the aircraft. As we unbuckled our seat belts, the PC’s and my goggles had detached from our helmets and stayed in the aircraft only because we had the heads-up display attached. The right chin bubble had not been so lucky. My weight bag flew off my helmet and went through it. We called all the appropriate people and were picked up and taken to the hospital for a check-up. After our debriefing from our leadership, we went home.

We all came in for the accident investigation and told our version of the events. They pulled all our records and paperwork. Lessons learned from this would be:

• We had done a recon of the area during the day — positive

• Flight plan/risk assessment/performance planning card/reading card files all in order — positive

• Crew brief before the flight included the flight route for the AMR and training portions, as well as what we would do in case of a emergency — positive

• Establishing common terminology was definitely something we needed to work on. “Coming in hot” was not the acceptable terminology — negative
From that point on, we established that “climb” or “go around” would initiate just that.

At the end of the day, the accident ending up being a Class C. All three crewmembers, except for some bumps and bruises, were OK. But the experience was something we'll never forget, and the lessons learned will stay with us our entire careers.
ROAD WEARY
MAJ. STEPHEN BRACK
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In the aviation community, we talk about safety all the time. It’s evident that we put a greater emphasis on safety at work. For example, I would never start a flight across three states without first making arrangements to support the mission, such as knowing exactly where I was going to stop for fuel or stay overnight. Last summer, however, I took my family on a road trip to Albuquerque, N.M., and did just that.

The plan was to leave our home in Little Rock, Ark., on a Friday and arrive in Albuquerque by Sunday afternoon. As usual, I scheduled the overnight stops well in advance and made the necessary arrangements for hotels, which would allow me to drive no more than about five hours a day. My wife also researched activities we could do with the kids in the evenings at each location. With our itinerary set, all that was left was to execute. As we finished our last bit of packing Wednesday night, we decided we could easily move up our departure date by a day. This is where a series of bad decisions began.

Since our hotel reservations didn't start until Friday, I figured we would just leave when I got off work Thursday, drive until I started getting tired and then stop for the night at the closest Holiday Inn. That would give us a little more time to spend in Oklahoma City. It sounded like a win-win situation to me. After all, it was a Thursday night, and I was sure I'd have no problem finding a hotel along the way. Wrong!

I never considered that my last-minute plans would be thwarted by the Oklahoma City Thunder playing in the NBA playoffs. Between all the people in town to watch the playoffs, as well as a national softball tournament, there wasn’t a hotel within 200 miles of Oklahoma City. Obviously, those folks had planned better than I. My decision to “shoot from the hip” and “see how far we can get” was quickly blowing up in my face.

The one bright spot was that my three boys, who ranged from 2 to 10 years old, were still engrossed in their Rescue Heroes DVD playing in the back seat. (A car DVD system is a fantastic invention.) But I knew it wouldn't last. Shortly after Rescue Heroes ended, it was time to switch to a DVD my youngest son would enjoy. That’s when the complaining started.

We were about an hour from Oklahoma City and the boys were done! My wife was using every resource available on her phone to try to find us a hotel. Of course, nothing was showing up as available until Amarillo, Texas, and that was another 4½ hours down the road. By the time we rolled through Oklahoma City about 11 p.m., I was very tired. I was hoping we could find somewhere (anywhere!) to get some rest, but even the “roach coach” motels were boasting “NO VACANCY” signs. I felt as if I had no choice but to push on toward Amarillo.

I knew I was going to have to pull over and take some power naps along the way and maybe even ask my wife to drive for a little while. I would definitely need to stop and get some more caffeine too. Without really thinking about it, I went through the risk assessment process to minimize the hazards as much as I could. We pulled over when I needed to so I could grab a quick nap. My wife also helped by taking the wheel for a few minutes, but she was exhausted too. Eventually, we completed what should have been a 4½-hour trek to Amarillo in about six hours.

When I pulled in to check into the Holiday Inn in Amarillo at 5 a.m., I was worn out. The kids were just waking up and, aside from wondering why they were still in their car seats, were oblivious to what had been going on all night. Determined to not put ourselves in another dangerous situation on the road, we stayed at the hotel in Amarillo an extra night to let everyone recover and went on to Albuquerque Sunday as planned.

Aside from some grumpy travelers, a very tired mom and dad and the fact that I didn’t get to go to the Bass Pro Shop in Oklahoma City, we were all OK. But when I look back at that trip, there are some things I obviously should have done differently. First and foremost, I should have stuck with the original plan to leave Friday, or we should have at least checked on lodging arrangements prior to departure. Instead, I managed to put four of the most important people in my world at risk.
For some reason, we just don’t weigh the risks off duty the same as we do when at work. Yet, excluding deployments and training, we are only in the workplace for about one-third of our day. That leaves the remaining two-thirds of the day subject to unmanaged risk. Thankfully, we made it through just fine and went on to have a great trip. However, it could have easily ended differently.
SO OTHERS MAY LIVE
CHIEF WARRANT OFFICER 4 NATHAN TIERNEY

On the afternoon of Nov. 20, 1998, my ship, the USS Shiloh (CG-67), received a request from the Australian Rescue Coordination Center for assistance in conducting a search-and-rescue mission. A 50-foot sailboat had been demasted and was adrift in heavy seas. Four people were manifested to be onboard.

Throughout the night, Shiloh closed the 270 nautical miles to the sailboat's position and launched our helicopter to assist in the search. Locating the boat, the first aircrew made an attempt to rescue its survivors. They tried to lower a rescue swimmer onto the sailboat, but the high sea state and small size of the boat made it impossible to safely put him on the deck on a moonless night. Sharks had been sighted swimming nearby and the crew decided not to jump anyone into the water. However, they were able to confirm that two survivors remained on the wreckage.

At 3:30 the next morning, we briefed a second rescue attempt. The crew consisted of Helicopter Aircraft Commander Lt. Cmdr. Mark Sullivan, co-pilot Lt. j.g. Ian Neville-Neil, Aviation Antisubmarine Warfare Operator 3 Kenneth Smith as the SAR utility crewman and myself — back then an aviation antisubmarine warfare operator 2 — as the rescue swimmer. After conferring with Smith, who had flown the previous attempt, I dressed out in a full wetsuit and gear. We launched just before sunrise.

The Shiloh had closed to within a mile of the wreck and we were soon hovering over the 50-foot boat. The masts were broken off and a large piece of it hung off the port side into the water. The cabin windows were broken, and the sails and lines were strewn across the sailboat. Amongst the debris, in the center of the boat, the surviving couple huddled, waiting for us to save them.

The plan was to hover over the sailboat and then rapidly lower me to the deck. From there, I would assist them, one at a time, onto the hoist. Ready to go, I was lowered beyond 10 feet below the helicopter (to bypass the slow speed setting on the hoist). I dangled there for about 20 minutes as the pilots tried to get me over the sailboat. Their problem was that the swells kept sweeping the boat away from us, making it impossible to hold a steady hover over such a small object that was moving plus or minus 20 feet. At one point, I saw a wave miss our tail by only a few feet.

Meanwhile, Smith's work as a hoist operator was superb. He verbally directed the pilots while at the same time communicated with me via hand signals. One might think that because I had no voice communications with the rest of the crew, I would have become confused. But that was not the case. Throughout the entire evolution, I was informed of what was going on. Smith's outstanding crew coordination and quick actions prevented me from getting injured.

After repeated runs at the deck, I realized it would be impossible to get onto the boat via a hoist and signaled Smith to bring me up. Once in the cabin, I told him to pass on to the pilots that I wanted to jump. The aircraft commander was hesitant to jump me into the heavy swells, especially since sharks had been sighted. They tried again to lower me to the debris-fouled deck, but after several unsuccessful attempts, Sullivan decided to deploy me from a 15-foot hover behind the boat.

The pilots held a steady hover and I jumped. They were able to place me about 20 feet away from the sailboat. It couldn't have been better. The jump call came when the boat was in the trough of a swell and the helicopter was hovering above another trough, just below the tops of the swells. Had the placement for my water entry been different, the boat could have hit me when I came up for air or sucked me underneath as it ascended or descended.

As the boat rose up a swell, I approached it. There wasn't a visible ladder on either side, so I attempted to climb up a plastic buoy device attached on the aft of the boat. As I got about half way up, it broke and I fell back into the ocean. Struggling to make my way along the starboard side, the boat fell from the top of a swell into a trough, dragging me with it. I hit my head several times and ingested quite a bit of water before the boat reached the bottom of the trough.

Still holding on and after catching my breath, I shouted to the couple, telling them I was a Navy rescue swimmer and was there to help. I asked if they had a ladder. They did not. As the boat began to rise up the next swell, I grabbed a thin sail line and attempted to climb up. Again, I reached halfway. As I grabbed a piece of wooden siding and tried to pull myself into the boat, it splintered off and into the water I went. On the third effort, I lost my grip as the boat tumbled down another wave, hitting my head as I fell. The lower part of my body was sucked beneath the boat and I was nearly swept under. I grabbed onto a sail line and rode the wave out.
On the next up swell, I attempted to climb again. The sail line was tough to clench with my wetsuit gloves. Pitching and rocking with the boat, I held the rope with one hand and managed to remove my gloves with my teeth. Unencumbered, I continued my climb but still lost my grip several times. Kicking hard with my fins, I almost made it once, but the boat tumbled away, down the crest of a wave. This fall was worse than the previous ones and nearly capsized the boat on top of me. After that wave had passed, I tried twice more to climb on board to no avail.

Tired and having inhaled a fair amount of seawater, I backed away from the boat and made eye contact with the family. I shouted to them that I wanted the lady to jump in first, and that I'd swim with her to the hoist. I instructed the man to stay strapped to the boat and that I'd be right back. I told the woman to jump and she did with no other encouragement. As I swam up to her, she tried to use my head as a life preserver, but I swung her around in a collar tow and told her she'd be OK. I told her again that I was a Navy rescue swimmer and my name was Nathan.

The woman's nose was bleeding and was visibly broken. She had dark bruises under her eyelids, indicating a blow to the head. Her lip was torn open from the edge of her mouth to her left earlobe. There was some bleeding from her mouth and her jawbone was visible. She had a severe laceration above her left eyelid and her left eye was not visible due to the blood. I asked her routine questions about a possible back injury, but due to her facial injury, she could not talk coherently. I wasn't sure whether to signal for a litter or not, so I probed her back using the spinal highway method to see if she squirmed from pain. She didn't flinch, and based on seeing her walk around the deck of the boat earlier, I did not signal for a litter. Given the size of the swells, I felt it was the right decision.

After signaling for pickup, we waited for the helicopter to get into position and lower the hoist. I glanced back to check on the sailboat. The waves thrust it right at us. No matter how hard I swam, the unpredictable ocean kept shoving the sailboat our way. As I towed the woman away from the boat, I lost sight of the helicopter and hoist. I looked back for the boat to get my reference, but it had disappeared behind a large swell. Everywhere I looked, I saw nothing but water.

Being disoriented, I decided to wait for the current swell to pass. Rather than let the woman get hit head-on by the oncoming wave, I positioned my back toward it and tried to cover her as much as possible. On its crest, I saw the hoist again and started swimming. When it was within arm’s reach, a wave pushed it away. On every attempt, the rescue strop darted away. The pilots did their best to maintain a stable hover, but the 20-foot swells made it difficult. Smith continued to position the hoist near me. Quite a few more times I lost track of the helicopter while stuck in the troughs.

Finally, a wave hit me in the face. As I stopped swimming to spit the water out, I saw the rescue strop and was able to grab it. I put it around the woman and fastened it. She kept grabbing on, delaying the process, so I told her not to touch anything and that I'd get her to safety in just a second. After getting her fastened, I had to go underwater and unravel the tangled hoist from around her feet and legs. Once cleared, I signaled up hoist. Smith raised it with a steady hand. The slack was taken up just as she reached the top of a swell. The swell from beneath her fell as he raised the hoist. Out of the sea, she momentarily dangled about 15 feet as the hoist reeled in.

With one to go, I swam toward where I thought the boat should have been. Waiting for the swells to lift me so I could see, I found it toward my right. I had to swim against the waves to get there and two back-to-back waves hit my mouth. I had my snorkel out because it was continuously filling with water. Having aspirated too much water, I had to stop and unglamorously vomit. Twice more I “purged” as I swam against the swells.

Eventually reaching the boat, I instructed the man to jump and he did. Not wanting another head hold, I had him turn around as I approached. I told him he'd be safe and that the woman was OK. As I checked over the man, I noted deep lacerations to his hands and a few other bruises. Exam complete, we were ready for pickup and moved toward the helicopter.

It took quite a bit of swimming to find the hoist again. I was still a bit fatigued from chasing the hoist around the last time and once again lost sight of the helicopter due to the waves around me. The ocean also pushed the boat toward us quite a bit. I had to constantly look back and dodge the boat while buddy towing the man. The hoist darted away just once as we were just within reach.
On the second try, Smith lowered it with such precision that it was nearly laid in my hand. I was so happy! I was exhausted and honestly thought that I was going to have to go through the chase again. As I was hooking us up, we fell down into a trough and all the slack in the cable disappeared, yanking the hoist up and the man away. I grabbed on and shouted, “No, don’t do that!” In retrospect, the man probably thought he had done something wrong. Smith responded quickly and gave out more slack. I hooked up and did a final check before signaling to be hoisted.

It seemed like it took forever for the hoist to raise us. This was due to the enormous amount of slack in the line. The swells had pushed us off center from the hoist and when tension finally came, we were dragged through the water. The man got submerged at first, but I quickly swung him around and placed myself under the water. It seemed like I held my breath for quite some time before we finally got pulled clear and were raised into the aircraft. All total, I had spent 20 minutes dangling at the end of the hoist and 45 minutes in the water performing the rescues.

After the cabin door was closed and the man seated, I plopped into the rescue seat. Before Smith could lock the man into his seat, he motioned Smith aside, shook my hand and told me thank you. That meant the world to me and I had never felt better.

Our helicopter re-launched about 30 minutes after we landed to search for the other two people on board the yacht who had been washed overboard. We spent four more hours conducting an expanding search and controlling another helicopter. A significant amount of wreckage was scattered throughout the search area. Unfortunately, no other survivors were found.

That night, the crew of Shiloh raised nearly $4,000 in donations for the survivors. I witnessed compassion and generosity as I never have seen before. Everyone on board the ship wanted to help. The following day, Lt. Mark Dietter, Lt. Arsenio Delatorre and I flew the couple to New Caledonia. There was a doctor and ambulance waiting for them at the airport. I don’t know what happened to them after that, but I take comfort in knowing I helped get them that far.

Out of this experience came many lessons learned. Three of those really stand out in my mind. First, training does not prepare you for every situation; but adapting your training to the mission at hand does ensure mission success. Secondly, crew coordination is essential to preserving lives and resources by minimizing the risk through enhanced situational awareness. Our standardized methods of verbal and non-verbal communication eliminated confusion and also reduced delays during the entire rescue. Lastly, an organizational culture based on principled performance attributes of leadership, trust and cohesion creates self-governing mindsets within each team member so that others may live.
LIFE AND DEATH
CHIEF WARRANT OFFICER 4 KIRK LITTLE
834th Aviation Support Battalion
Tulsa, Okla.

While working as an assistant trainmaster for the Union Pacific Railroad, my job as a manager required me to be on call should any problems arise in my area, which ran from Kansas City, Mo., to McAlester, Okla. On a warm mid-July evening, I got a call that would remind me just how precious life is and how we should never take it for granted.

It was about 6:30 p.m. when the call came in notifying me of a motorcycle accident at a railroad crossing on a country road outside a small town in eastern Oklahoma. The civilian motorcyclist was apparently traveling at a high rate of speed on his sport bike when he failed to negotiate a turn and struck the railroad embankment. He was thrown from his bike and landed on the tracks.

Shortly after the accident, a train came around the curve. When the engineer saw the body lying across the tracks, he immediately applied the emergency brakes. However, it took more than a half-mile for the 8,500-foot train to finally come to a stop. When it did, it was on top of the motorcyclist’s body.

When I arrived at the scene, a crowd had gathered as local law enforcement officials conducted their investigation. I walked slowly along both sides of the train, looking underneath the rail cars and along the tracks for additional items that may help solve the cause of the accident. During my investigation, I came across several items of clothing and dismembered body parts that had been scattered upon impact.

According to the highway patrol and other officials investigating the accident, the motorcyclist had been killed when he struck the embankment. The officers pointed out that the impact was so intense that it knocked the shoes off the rider’s feet. His body was then launched onto the railroad tracks, leaving him straddling the rails.

When a train is involved in an accident, it must remain in the stopped position until the scene has been investigated. The local authorities then talk with the manager from the railroad before giving approval for the train to be moved. Once I got the approval, the crew moved the train to the first available siding and was then released from duty. They would later go through several days of counseling, a normal practice when involved in a crossing accident or other traumatic experience.

It was well past midnight when we finally finished cleaning up the accident scene. After everyone else left, I remained behind to ensure that several other trains could pass without any issues and that there had been no damage to the rails. Once I was satisfied that everything was safe, I decided to call it a night.

As I walked to my truck, which was parked about a quarter-mile away, a pickup carrying a young family pulled up alongside me. The man driving the truck asked me if I knew what had happened. I told him there had been a crossing accident involving a motorcycle. He then asked for details. The man told me the accident victim was his brother, and he’d only owned the bike for a few days. He’d been going through some rough times with his family and had been drinking earlier in the day.

I didn’t give him the details of the accident, telling him he’d need to contact the local authorities for that information. The man thanked me for my help and apologized for the trouble. He then drove off down the quiet country road that was congested with onlookers earlier in the day. As I continued to my truck, I looked up at the summer moon and said a prayer for the dead man’s family. I couldn’t help but think about how the choices we make have an impact on more than just our own lives.
HOT MESS
LORENA WOOLARD
Veterans Affairs
Augusta, Ga.

Why was I laying on my bed with just a towel around me? And why was I so disorientated? I tried to collect my thoughts. I remembered washing my car and then coming home to shower. After my shower, I decided to pamper myself and take a nice, long bath. I filled the tub with hot water and bubbles, turned on some music and settled in for what seemed like an hour.

Realizing my skin was getting wrinkled, I decided to hop out. That’s when I felt dizzy. I had no idea what was going on, so I quickly grabbed my towel and headed for the bedroom. I barely made it to the bed before I passed out.

This happened to me more than 20 years ago, and I haven't taken a hot bath since. However, a few years ago, my boyfriend and I were on vacation and decided to enjoy one of our hotel's amenities — specifically, the Jacuzzi. I was leery at first, as my mind raced back to my last experience of soaking in a hot tub, but I decided to give it a shot anyway.

Initially, the warm water was wonderfully relaxing; however, everything went downhill fast. My boyfriend got out and walked to the shower to rinse off. I watched him reach for the top of the shower door, turn around and fall to the ground. I couldn’t believe he passed out! I jumped out of the hot tub and rushed over to him. He had hit his head on the wall when he fell, but I was able to revive him. He suffered only minor injuries.

I had chalked up my experience of passing out after a hot bath as a fluke. But when it happened to my boyfriend, too, it was Google time. During my research, I read a Harvard Health Letter and learned a hot soak relaxes your blood vessels, as well as the rest of your body. When you get out of the water abruptly, some people suffer from “hot tub” syncope. According to the Mayo Clinic, syncope — like fainting — is a temporary loss of consciousness followed by spontaneous recovery.

The hotter water in a hot tub poses increased health risks from fainting. Mayo Clinic heart researchers had six subjects soak in 104 F water (the current recommended temperature for hot tubs) and 106.7 F water for 21 minutes to see if hotter water caused any ill effects. They concluded that the higher temperatures posed little health risk from heart or circulation problems. However, they found that when the subjects stood up to exit the tub, systolic blood pressure dropped dramatically, nearly twice as much in the hotter water compared to the 104 F temperature. The study goes on to say that out of 36 hot tub deaths, 25 were caused by drowning.

During my accident, I was fortunate I didn't hit any sharp or hard objects. My boyfriend was lucky as well and only lightly hit the wall. For anyone taking a hot bath or getting into a Jacuzzi, I highly recommend limiting your time to 10-15 minutes and keeping the temperature at 104 F or less. Yes, a nice, hot bath may be good to soothe tired, aching muscles. Just don't overdo it or you could find yourself in a “hot mess.”
ACCIDENT BRIEFS

AVIATION

UH-60M
Class A
The aircraft was taxiing on the ramp when the main rotor system contacted a concrete T-wall. All four main rotor blades, the leading edge of the tail rotor and the horizontal stabilator were punctured by debris.

MQ-1B
Class A
Operators experienced a loss of link with the system during flight. The system was recovered as a total loss.

CH-47D
Class B
A Soldier was injured when he was struck by a pallet that was blown by rotor wash during a slingload operation.

GROUND

PERSONNEL INJURY
Class A
A Soldier drowned while swimming with four other Soldiers.

DRIVING

PMV-4
Class A
A Soldier was killed when his vehicle left the road in inclement weather and overturned multiple times. The Soldier, who was ejected, was not wearing a seat belt.

A Soldier died when his vehicle crossed the centerline of the roadway and collided head-on with a tractor-trailer.

PMV-2
Class A
A Soldier was killed when his motorcycle collided with a pick-up truck. The Soldier had reportedly proceeded through an intersection after the light had turned red and clipped the right rear of the truck. He was wearing his full personal protective equipment.

A Soldier was killed after participating in a battalion motorcycle safety ride when a log truck turned into his path. The Soldier was properly licensed, wearing the required PPE and had completed the required Motorcycle Safety Foundation courses.

A Soldier died when his motorcycle slammed into a pick-up truck that had just pulled onto the road. Witnesses reported the Soldier was traveling at a high rate of speed.

A Soldier suffered possible permanent paralysis from the waist down when his motorcycle was struck from behind by a commercial charter bus.

A Soldier was killed when he clipped another Soldier’s vehicle on the road and was thrown into oncoming traffic.

A Soldier died when she lost control on a freeway exit ramp, went down an embankment and struck a tree.

A Soldier died when he went into a skid in a curve and struck a guardrail post. The Soldier was wearing full PPE.
A Soldier was killed when he lost control of his motorcycle and was thrown into a guy wire.

A Soldier was killed when he rear ended an SUV that had stopped in front of him for a turn.

**ATV**
**Class A**
A Soldier and his 13-year-old passenger died when their ATV crashed into a pipe while off-road riding.
WINTER'S UNSEEN TRAP
FROM THE CSM
DAYS OF OLD, DAYS OF NEW

Nearly 600 Soldiers died in accidents in 1979, the year I joined the Army. Unbelievably, that was an improvement from the previous year, when we recorded just shy of 700 accidental fatalities. Those are unconscionable numbers by today’s standards, but back then, it was just the way things were. More than a decade passed before accidental losses tapered significantly, and far too many tragedies occurred in the meantime.

Thankfully, in today’s Army, safety is the new normal. We no longer accept accidents as the cost of doing business or that “Soldiers will be Soldiers” in their off-duty time. Personal accountability has become a hallmark of our profession for Soldiers at all levels, and safety has consequently become an entrenched part of our everyday lives. I’m lucky to have witnessed this turnaround firsthand; the 1979 me couldn’t have imagined the profound impact safety would have on my career or the lives of our Soldiers.

At any given time, leadership can be the most frustrating or most rewarding job in the Army, and some days it’s both. But without a doubt, the historic low in accidental fatalities we achieved during fiscal 2013 was a victory for leaders everywhere. It was the culmination of a lot of hard work and more than a little frustration at the Army expecting us to do one more thing in the middle of this event called war. Reducing accidents while fulfilling our combat roles seemed impossible, but we did it both in theater and at home. That’s what my grandmother called gumption, and you — our leaders, from the top to the bottom of the chain of command — possess it in spades.

I couldn’t be more proud of all of you, especially as my time in the Army draws to a close. Every day I’ve spent with Soldiers has been a humbling, awe-inspiring experience, and I’m better for it. If I’ve learned anything after 35 years in the uniform, it’s this: You have to listen to your Soldiers. Some leaders are born intuitive while others have to work harder at it, but wherever you fall on the spectrum, simply listening and reading between the lines will tell you most of what you need to know. This is an especially important attribute in safety, because it’s rare that a Soldier will tell you he or she is acting in a risky manner. If you know your Soldiers, chances are you’ll know when they’re in trouble without them stating it.

While I transition out of the Army and toward retirement during the next few months, Command Sgt. Maj. Leeford Cain will be assuming my roles and responsibilities at the USACR/Safety Center. I have no doubt he will be a tremendous asset to the organization and our Soldiers, just as he’s been at every previous assignment. Leeford is coming to us from U.S. Army Garrison, Ansbach, Germany, bringing with him many years of experience as a command sergeant major at the brigade and battalion levels. I know him personally and wholly believe he is the right choice to fill this position at this critical juncture. Please welcome Leeford in January and let him know what you need from him to keep your Soldiers safe.

It’s been a long time coming, but now we know our Army can’t thrive when risk runs unchecked through our ranks. Your tireless efforts for safety show in everything from all missions being performed to standard to a battle buddy calling a cab for a fellow Soldier after a night of drinking. We can’t go back to the Army of 1979; we have nowhere to go but forward from here, into a future where no Soldier has to die in a preventable accident.

Goodbyes are bittersweet, and I will miss you all. But remember it’s your turn — to lead, to shine, to make a real difference in a Soldier’s life. Before you know it, 35 years will have come and gone and you’ll be where I am today. And you’ll realize, just as I have, that your Soldiers are the greatest legacy you could ever leave behind. Don’t waste this precious opportunity, this gift called leadership.

Army Safe Is Army Strong!

RICK STIDLEY
Command Sergeant Major
U.S. Army Combat Readiness/Safety Center
WINTER’S UNSEEN TRAP
CHIEF WARRANT OFFICER 3 DANE W. PEDERSEN
Detachment 22, Operational Support Airlift Agency
Pennsylvania National Guard
Annville, Pa.

As an officer and aviator in the U.S. Army, I — like most of you — have been exposed to a significant amount of safety training. We’ve all learned that the unseen hazard is oftentimes the most dangerous. For example, Field Manual 3-04.301(1-301), Aeromedical Training for Flight Personnel, highlights Type I (unrecognized) spatial disorientation as the most dangerous because the hapless aviator has no idea they are disoriented, and thus, takes no action to correct the danger facing them. Carbon monoxide is similarly insidious. Whether it is exhaust leaking into your vehicle, or perhaps a propane heater warming a tent, carbon monoxide takes its prey with no warning. However, this article is not about spatial disorientation or carbon monoxide. There is another hazard that’s similarly treacherous and just as veiled. Unfortunately, I found myself in its trap on my way home from drill one weekend.

It was a pleasant and cloudless Sunday afternoon on a drill weekend, a welcomed change from the sub-freezing, overcast, low-pressure area that had blanketed the Keystone State just a day earlier. Now, south central Pennsylvania was awash in sunlight, and the mercury had peaked near 40 F — improved weather indeed. Following formation, I made my way to the parking lot that had been cleared of the foot of snow that fell the day prior. I hopped in my Toyota pickup, fastened my seat belt with a reassuring click and set out on my hour and 10 minute commute home.

As I made my way south down the highway, the cruise control set at 65 mph and a local news station emanating from the small dashboard speakers, I looked forward to the Sunday evening dinner at my parents’ house. Mom was preparing lasagna, and my brother was heading over as well. It was setting up to be an enjoyable end to a busy weekend of training. After 55 minutes of driving, I flicked up the stalk on the steering column, signaling my exit from the highway and my entrance onto the state route that would carry me to a warm plate of lasagna just 10 minutes away.

As I entered the state route and accelerated, something to the left caught my eye. I glanced through the light tinting of the driver-side window and saw the bright-orange digits of the local bank clock, which read 5:30 p.m. Then, in typical fashion, the time was quickly replaced by the outside air temperature — 34 F. I thought nothing of it, but, in hindsight, should have.

As I left the suburbs and entered the country, the sun had just slipped behind the hills. The vibrant orange of the sky and white of the fields was being sapped away, leaving only cold, gray dimness. I watched as familiar landmarks passed by — the old cemetery on left, the small business that specialized in flagpoles and signage on the right and the dilapidated wood barn that leaned awkwardly to one side as it strained under a heavy load of decaying hay stored there decades ago. I rounded the barn and entered a mild right-hand turn that was followed by a slightly sharper turn to the left. During normal road conditions, this turn was not so sharp as to require slowing down. Unfortunately, the road conditions were not normal.

I completed the left-hand turn and had just straightened the steering wheel when something felt odd. My faithful truck was not heeding my inputs. The truck was not straightening. I thought, “Is this just my imagination?” It was barely perceptible; yet, there I was, slowly — but unmistakably — approaching the double-yellow line. I tweaked the steering wheel a little more to the right to attempt a correction, but the truck continued to disobey.

As I crossed the double-yellow line, my hands gave up and my feet went into action, mashing the brake to the floor. Nothing … just sliding along. At this point, I was in a 3,000-pound version of one of those 25-cent kiddy car rides in front of the local grocery store, complete with an ineffectual steering wheel and brake pedals installed for entertainment purposes only. I was three-quarters into the oncoming lane and continuing my intrusion when a red Ford Escort, driven by a woman in her 50s, crested the hill not 400 feet in front of me. The next three seconds seemed like an eternity. When the countdown ended, the indescribable forces on the body and the agonizing gnashing of metal began.

I remember standing outside my mangled truck with someone. They were encouraging me to lie down, but I resisted. I glanced around painfully. My body ached all over. People gathered. I stumbled toward the Ford Escort. That same insistent person again asked me to lie down. Once more, I resisted. At the Escort’s driver-side door, with shattered glass crunching under my
combat boots, I bent over and peered inside to ensure the woman was all right. I was expecting she would be — after all, I was ambulatory. However, she was not all right. Her legs were broken badly beneath the collapsed dashboard and she had a nasty gash in her forehead.

I was pulled away and taken to the side of the road by a passerby who happened to be a paramedic. I remember the Jaws of Life tearing at her car in an attempt to release her from the jagged metal cabin. I remember the helicopter landing in a nearby field, awaiting her extrication. I remember a state police officer stepping out of his cruiser and slipping on the pavement, nearly falling, as he approached me. I remember people murmuring and looking down at the road surface, motioning with their feet as if feeling for something. I remember someone saying the words “black ice.”

Black ice had trapped me. It was just as deceptive and dangerous as Type I spatial disorientation and carbon monoxide. You don’t realize you are in a deteriorating situation until it is too late.

So how can you avoid this dangerous winter hazard? Let’s use the risk management process. The first step is to identify the hazard. But that’s a problem. Like carbon monoxide, black ice is very difficult to detect. The road simply looks wet. Actually, it was wet at one point — until the temperature dropped or the sun went down, forming a thin, translucent glaze of ice. So, unless you plan on stopping your vehicle every 20 feet to feel the road, identifying black ice directly is not practical. What we can do, however, is identify the conditions leading to the formation of black ice.

In order for ice to form, there has to be a source of moisture. Anything that could make the road surface wet, or simply damp, is all it takes. There are too many to discuss here, but rain, mist, flurries and water runoff are likely sources. So what caused the road to be wet on the afternoon I had my accident? Remember, the skies were clear blue the entire day. A large amount of snow did fall the day prior, and although the road crews and the sun had completely cleared the roads, there were numerous piles still along the shoulders. Because of the relatively warm temperatures the day of the accident, the piles of snow began melting and running across the road surface, varnishing the black asphalt in a thin glossy film of water. The first condition was met.

The second condition needed is freezing or near-freezing temperatures. Take note that I said “near-freezing” temperatures. It is possible for black ice to form even if the air temperature is several degrees above freezing. This can occur if the air warms suddenly after a cold spell that has left the surface of the roadway well below freezing. In other words, the air is above freezing, but the road is not (this is why some late-model vehicles will alert the driver to the potential for hazardous road conditions, usually at about 35 F). In my case, the road was probably just above freezing during the day because of heat from the sun. But as soon as the sun was low on the horizon, shadows fell and the water runoff froze.

Now that we have identified the hazard, let’s complete the risk management process. Using Figure 1-4 in FM 5-19, Composite Risk Management, and given the conditions above, I would assess the risk at high to extremely high. When developing controls, you might reduce your speed, travel earlier in the day when temperatures are warmer, select a different route home and/or use studded winter tires (although these still may not prevent sliding). You might even want to consider avoiding the drive all together and staying in base lodging or a battle buddy’s house if available. It is better to arrive safely the next day than not at all. And, whatever you do, wear your seat belt. I firmly believe I would not be here today without my seat belt. Finally, make your decisions, implement your controls and continue to supervise and evaluate throughout your chosen course of action.

Black ice is a sinister, unforgiving and potentially deadly winter hazard that is almost impossible to detect while driving. By identifying the conditions leading to its formation and using the risk management process to reduce the risk, you can likely avoid sliding into its trap.
DECK THE FALLS
MARK BUDHOO
72nd Field Artillery Brigade
Joint Base McGuire-Dix-Lakehurst, N.J.

One beautiful January day, I decided it was time to remove the Christmas lights from my roof. I set up the ladder on my composite deck, leaning it against the roofline. I knew composite decking is very slippery and doesn't offer a desirable surface to set a ladder, but I'm a guy that likes to get the job done, so I continued. Besides, I had help. My wife was going to hold the ladder, but she came outside in flip-flops. Once her toes felt the frigid air, she quickly went inside to change her shoes.

While she was gone, I started without her. As I climbed the ladder, it didn't feel stable. Unfortunately, I ignored that voice in my head that told me I should wait for my wife and proceeded to remove the lights. As I leaned toward the roof, I pushed down on the top rail of the ladder, causing it to slide across the deck. Then I lost my balance and fell about eight feet to the ground. At the hospital, I was diagnosed with a torn trapezius muscle. My reward for disregarding my personal safety: two days of quarters and 10 days of light duty. Adding insult to injury, the lights were still on my roof.

Each year, 12,500 people are treated at hospital emergency rooms for injuries much like mine due to falls, cuts and shocks related to holiday lights and decorations, according to the Consumer Product Safety Commission. The CPSC recommends using caution when removing outdoor holiday lights. The following tips can help keep you safe when using a ladder.

• Never pull on lights when removing them. They could unravel and inadvertently wrap around power lines.

• Make sure the weight your ladder is supporting does not exceed its maximum load rating (user plus materials). There should only be one person on the ladder at a time.

• Use a ladder that is the proper length for the job. The suggested length is a minimum of three feet extending over the roofline or working surface.

• Never stand on the top three rungs of a straight, single or extension ladder. Straight, single or extension ladders should be set up at about a 75-degree angle.

• All metal ladders should have slip-resistant feet.

• Metal ladders will conduct electricity, so use a wooden or fiberglass ladder near power lines or electrical equipment. Do not let a ladder made from any material contact live electric wires.

• Be sure all locks on extension ladders are properly engaged and the ground underneath is level and firm. (Here's a good idea: Large flat wooden boards braced under a ladder can level it on uneven ground or soft ground.)

• Have a helper hold the bottom of the ladder, and never place a ladder in front of a door that isn't locked, blocked or guarded.

• Keep your body centered between the rails of the ladder at all times. Do not lean too far to the side while working and refrain from stepping on the top step or bucket shelf.

• Make sure that the rungs are intact and free of dirt and paint buildup that could interfere with footing.

• When extending or retracting an extension ladder, hold the pulley rope firmly. If the rope is released, the upper section could drop on your fingers, arms or feet. Make sure that the tops of both rails make solid contact with walls and that both legs make solid contact with the floor or ground. Place foam protectors or wads of cloth on the tops of extension ladders to prevent them from sliding and to protect the walls.

• Be sure to empty your pockets before climbing a ladder. Knives, scissors or other pointed tools could cause injury.
• Do not push or pull too hard with a scraper or other tools while balanced on the ladder.

• Always wear rubber-soled or another type of non-slip shoe on a ladder. Avoid working in wet or windy weather, and do not climb a wet ladder.

Falls from ladders can cause serious injuries and even death. Following ladder safety procedures every time you climb the rungs will help keep you at home with family this holiday season rather than the emergency room.

FYI
Falls from ladders are preventable. For more information about ladder safety, visit https://www.osha.gov/Publications/OSHA3625.pdf.
ARE WE THERE YET?
CHIEF WARRANT OFFICER 2 PAUL WENDZEL
C Company, 2-147th Aviation Regiment
Iowa Army National Guard
Boone, Iowa

It was a fairly straight-forward, routine mission; pick up a VIP and staff, fly to two bases 45 minutes apart for meetings, then return home. Weather for the time of flight was forecast as visual flight rules with the possibility of light snow showers en route. Several hours after mission completion, the forecast was expected to become instrument flight rules. Everything indicated it was a good day to fly.

I arrived several hours early to ensure all the paperwork, planning and details were taken care of. Even though the forecast was VFR throughout our time of flight, I decided to plan an IFR flight as well, just in case. The radar was making me second guess the forecast, and I didn't want to be unprepared should weather come in sooner than expected.

During the crew brief, I let everyone know for each leg of the flight what we'd do in the event weather didn't cooperate and our VFR flight turned into a day of instruments. I reiterated that we were not going to push the weather if it deteriorated. The IFR conditions were planned for and briefed; we could file IFR in flight if necessary.

After picking up our passengers, it wasn't long before I could see in the distance the "light" snow showers that were forecast — although they didn't look so light. The closer we got, the worse visibility became. The airport we were abeam to was calling six miles visibility. In reality, however, that wasn't the case. This was the first indication that maybe the day wasn't going to be as smooth as I initially thought. We talked about filing IFR, but the cell was small, so we elected to fly north for a few minutes and then turn back on course.

When we landed at our first destination, I went straight to operations for a new weather brief. Just as before, they were calling for VFR conditions; however, the radar, Meteorological Terminal Aviation Routine Weather Report and Terminal Aerodrome Forecast for the next destination just weren't adding up. How could a cell just sitting over my next stop, and building, not be producing deteriorating weather?

After talking with our base ops, I made the decision to cancel the next stop and return home, even though on paper I had the weather to continue. After notifying the VIP, he cut his meeting short and we headed for home. On the way back, the cell we encountered earlier had become much bigger and darker. Although it wasn't in our flight path, it appeared to be building, eventually impacting our flight. Halfway home, operations sent a Blue Force Tracking message that weather at the stop I'd canceled (40 minutes north of base) was reported at 100-meter ceiling, quarter-mile visibility — nowhere close to my weather briefing or TAF.

After dropping off our passengers, we had a 15-minute flight back to base. It appeared the weather was deteriorating in the last leg of our flight, even though at our current location there was no ceiling and unlimited visibility. Weather at home base was OK, but not great. Before takeoff, we discussed waiting to see what the weather was going to do, but we all wanted to get home. I decided to go ahead and give it a try. After all, it's only 15 minutes and the weather at our current location was perfect. How bad could it really get in just a few miles? If needed, we'd simply turn around or file IFR and shoot an instrument approach.

After takeoff, our great weather disappeared in the blink of an eye. Even though turning around or going IFR was briefed and discussed, the drive to get home became more powerful every mile we were closer to landing. As we pressed on, my CE continually called out where the good weather was if we needed to turn back, while my co-pilot and I vigilantly looked for the runway.

Finally, I'd had enough.

We were still barely VFR, and I decided I wasn't going to push it anymore when we had a good plan in place if we encountered this. I lifted my foot to press the floor mike and let everyone know we were turning around. Even though we were just a few miles from landing, it just wasn't worth it. At that very moment, a pocket opened and we had the visibility to make it the last few miles. Within 20 minutes after landing, the airfield went to nearly zero-zero.
As a young PC, I had to make several tough decisions, from telling the VIP I’m canceling a stop to multiple weather calls throughout the day. I learned a lot. Taking the time to plan for the worst before it shows up will help alleviate unwanted stress at critical moments. Although we never went IFR, we had a plan for it and everyone knew what to do. Ultimately, the decisions were up to me, but the entire crew’s input was equally important. After all, if one member is uncomfortable, their mind won’t be on the task at hand, which could be the difference in success or failure. Most importantly, I learned that no matter how close to home you may be, don’t let that cloud your decision to make the right call.
JUST A SHORT RIDE
CHIEF WARRANT OFFICER 2 LAURIE ATERHOLT
A Company, 2nd Battalion, 104th Aviation

It was a crisp fall evening, and I was getting ready to meet a friend for a long run through the streets of Arlington and Georgetown in preparation for an upcoming marathon. Rush hour was over, so I decided it was a perfect time to ride my motorcycle. I had been riding for eight years and brought my bike with me to every duty station, including Italy, so I felt ready to take on D.C. traffic. Plus, it was just a short ride.

Since moving to the area, I hadn't ventured out on my motorcycle more than a few times after observing the local traffic patterns and driving habits. It was common to see people shaving, applying makeup, talking on cellphones and even reading the newspaper while sitting behind the wheel in bumper-to-bumper traffic. Still, I thought a 15-mile ride on this beautiful evening would be a perfect way to end my hectic day at the Pentagon. I hopped on my cherry red Suzuki Bandit, which I had bought from my best friend's husband a year earlier, and headed out.

Within minutes, I was in the left lane on Interstate 395, giving generous distance to the cars in front of me. My self-imposed rules for riding in the D.C. area were to give merging traffic plenty of room (ride in the left lane if possible, while on multi-lane roads), give other vehicles more distance than I did while driving a car, make myself as visible as possible (my bike and jacket were red and my helmet was white with an added reflective strip) and keep my head on a swivel at all times. I thought that should be enough to keep me safe.

As I cruised up the interstate at 60 mph, I saw a spot of wet pavement in front of me. Some sections of the median had sprinklers installed to water the plants, which meant the road was always wet, even if it hadn't recently rained. Suddenly, I noticed red tail lights on the cars in all four lanes in front of me. I downshifted and began slowing down — from 50 to 40 and then 30 mph. The distance between me and the cars was closing fast, so I started applying the brakes. Then I realized that everyone on the highway had come to a sudden stop. Despite the eight-second cushion I had at 60 mph, I now did not have enough space to slow down without slamming on the brakes.

I braked hard and began skidding sideways on the wet pavement. My first thought was, “Don't panic. Just keep the bike upright and you'll be OK.” Then I heard squealing tires behind me. I was able to keep my bike upright, but now I had to worry about the car behind me running over me. Fortunately, the car swerved into the lane to our right to avoid hitting me. Then, as quickly as it had stopped, traffic was once again moving at 60 mph (completely normal for D.C.!). The whole ordeal lasted only a few seconds, but it was absolutely terrifying.

When I arrived at the meeting point, I couldn't stop shaking for several minutes. That was the last time I ever rode the bike at night. In fact, I decided D.C. traffic was more than I needed to tackle and sold the bike that spring to a young sailor. I made sure I told him about my scare and encouraged him to take a rider safety course.

So what could I have done differently that night? First, I could have taken my SUV instead of the motorcycle. I was familiar with D.C. roads and the traffic, but I also knew how unpredictable they were and how frequently people in D.C. drive distracted. Add to that the factor of driving at night, which can make it more difficult to distinguish distance and determine when traffic is stopped in front of you on the highway, and I should have resisted the temptation to “ride the wind” on that crisp fall night.

I also should have worn all available personal protective equipment. While I was wearing a full-face helmet; motorcycle jacket with protectors for the shoulders, elbows and kidneys; and gloves, I did not have any true PPE below the waist. I was wearing jeans and hiking boots. Even though I no longer own a motorcycle and only ride occasionally as a passenger, I now have riding pants. (I’ll admit, however, that I should also own riding boots.)

For many years, a full-face helmet and riding gloves were the only pieces of motorcycle-specific gear I wore. I would ride in a denim or leather jacket, jeans and boots or running shoes. At the time, it was nearly impossible to find women's riding gear that was not: a) made for riding as a passenger on the back of a Harley; b) leather only, which is hot in the summer and offers no protective padding; and c) extremely expensive. I was living on a Ramen noodle budget, like many young riders, and couldn't
justify buying expensive gear that didn’t suit my non-Harley motorcycle. Can you picture me on my old Honda Shadow in a Harley jacket and leather chaps? Hardly! Fortunately, today there are a lot more options for female riders looking for functional, well-fitting and cute (Hey, it’s important to some of us!) gear.

Speaking of gear, I know some may think that motorcycle pants are only for people who ride on a track or during the winter, but they can help lessen your injuries if you ever lay down your bike on the asphalt. A few years ago, I was in a bicycle crash, which convinced me to purchase pants for my trips as a motorcycle passenger. I was traveling at little more than 20 mph on my bicycle when I hit the pavement. I was wearing normal cycling gear, which included a helmet, glasses, cycling clothes and fingerless gloves, and each piece saved me from more serious injury. However, I still walked away with a serious case of road rash all over my body and hands, bruised sternum, broken wrist, 12 stitches in my lip and a broken nose. I skidded across the pavement on my face before tumbling and coming to rest on my back, so my glasses — which were made specifically for cycling — protected my eyes from injury. I realized that if I were going much faster on a motorcycle wearing nothing but jeans and running shoes, I would surely have suffered some serious leg and foot injuries.

So what lessons can be gained from my experiences? First, I think there are some traffic conditions that are better tackled while protected by a steel cage. I know there are some riders who have no qualms about negotiating conditions like D.C. traffic. I, however, simply do not trust that other drivers will do the right thing behind the wheel. I have been in two fender benders while living in the D.C. area, both while in stop-and-go traffic. Both times, I was glad that I was hit while driving my car and not while on the bike. Even slow-speed accidents can cause serious injuries to a motorcyclist.

Second, even if you are on a Ramen budget, scrape together some pennies, go on eBay, check Craigslist — just do whatever it takes to buy a full protective ensemble for riding. It will protect you much better and you’ll be warmer while riding in cooler weather. We all have suffered through a cold ride and it is not fun!

Finally, as hard as it may be, resist riding on days when you know there are other factors that might make the ride risky. Remember, the weather is not the only factor to consider when deciding to take the bike out for a spin.

I have to admit that I miss owning two-wheeled motorized transportation. Yes, I’m still riding the bicycle, but it’s not the same. Currently, I am looking for a nice, used motorcycle to buy. Before I get back on the road, though, I’ll ensure I’ve done everything I can to keep myself protected from whatever obstacles may be thrown my way.
STOPPING THE SILENT KILLER

STEPHEN MCCOMBS
U.S. Army Corps of Engineers, Los Angeles District
Los Angeles, Calif.

Do you have a carbon monoxide detector in your home? If you don’t, you may want to consider purchasing one. Trust me, I speak from experience.

My family and I were snoozing away one chilly morning when we were awakened abruptly by a shrill noise. No, it wasn’t my wife. (I am so dead when she reads this article). The annoyance was my carbon monoxide alarm sounding. Pulling myself out of bed, I noticed the house heating system was also on. I set the thermostat low, but the temperature had dropped enough during the night for it to engage. When it lit off, something went terribly wrong with the air and fuel mixture. It was running very rich and I could feel the heat coming through the door to the heater’s closet. However, it wasn’t the heat that concerned me. What got my attention was the reading on my CO detector’s display panel.

Here’s a quick science lesson: CO is an odorless, tasteless and colorless gas that is a by-product of incomplete combustion, especially from fossil fuels. Almost anything that burns gives off CO, and you won’t know it’s there. It can kill quickly if concentration levels are high enough. At 50 parts per million, most healthy adults get symptoms of CO poisoning — which include headache, nausea and vomiting — in the early stages of exposure. The higher the concentration, the quicker CO can render you unconscious and eventually lead to death.

Red blood cells carry oxygen around your body and there’s a substance called hemoglobin that is part of these cells. Hemoglobin is what grabs oxygen molecules and moves them around your body. Hemoglobin attraction to CO is about 400 times greater than it is to oxygen. So when CO is present, hemoglobin will latch onto it instead of the oxygen. Your hemoglobin molecules can’t carry enough oxygen to keep you alive. All the while, you’re unaware because you cannot smell, taste or see it. Thus, CO is dubbed the silent killer.

How do you stop a silent killer? Noise works quite well. When my CO alarm went off, the reading was 289 PPM and rising. Without an alarm, there’s a good chance my family and I would’ve died.

Eventually, the malfunctioning heater would have caused a fire and the smoke alarms would have activated. But if we were all unconscious from CO poisoning, we wouldn’t have heard them.

Fortunately, we did hear the CO alarm and got out of the house in time. I turned off the heater and turned on our whole-house exhaust fan as we left. None of us had CO poisoning symptoms and went back inside 30 minutes later. This incident is exactly why I purchased a CO detector and it’s why you should too.

I cannot officially endorse any product, but if you’re in the market for a CO detector, I suggest getting one that operates by electrical plug and battery backup. I purchased mine at a large home-improvement center for less than $50. That’s a small price to pay to save an entire family from a premature death, right? You bet it is.

FYI
Additional information about carbon monoxide poisoning can be found on the Centers for Disease Control and Prevention website at http://www.cdc.gov/co/.
WHO’S IN CHARGE?
CHIEF WARRANT OFFICER 2 IAN GEISSLER
Bravo Company, 1st Special Troops Battalion
1st Brigade Combat Team, 101st Airborne Division (AASLT)
Fort Campbell, Ky.

Unmanned aircraft systems have many built-in procedural safety checks similar to manned aviation, such as system limitations, environmental factors and airspace deconfliction methods. These procedures are in place to ensure the safety of the aircraft and aircrew operating in the same area of operations. But conducting flight operations in and around the busiest tactical airfield in eastern Afghanistan presents a complex and dynamic airspace in which to fly. Pilots must contend with opening and closing of restricted operating zones, quickly changing weather, low visibility and congested traffic patterns — each of which have their own procedures defined to mitigate risks. So what happens when the procedures conflict? Which procedure takes priority over another? Who is authorized to make the decision?

I was a UAS technician in a brigade tactical operations center, acting as the mission coordinator for Shadow operations. We were about two hours into a routine counter indirect fire mission that was 45 minutes away from our launch and recovery site. We received a message over multiuser internet relay chat from our weather operations that other pilots were reporting a sand and windstorm heading toward our LRS that would be over it in about an hour and a half.

According to our flight procedures, our aircraft must be on the ground one hour prior to forecasted weather that exceeds either our aircraft limits or the controlling ground equipment system limits. Even though the area we were flying in was well away from the sandstorm, we were required to return to base because the high winds could damage the antenna controlling the aircraft. We began weather scans as we were flying back to base and observed the sandstorm approaching from the north. It was about 100 feet tall, moving fast and heading right toward the LRS. Fortunately, it was still far enough away to give us time to make it to the deck safely.

Ten minutes out, we contacted air traffic control and requested a direct approach to the runway for immediate landing at the Shadow LRS. ATC informed us that brigade headquarters and headquarters company had their demolition restricted operating zone hot at the inbound end of the runway.

Now, I don’t know who came up with the idea of putting the unexploded ordinance demolition range 100 feet from the flight line and hot refuel pads. I also don’t know why their ROZ dimensions needed to have a radius of five miles and go to 20,000 feet altitude. Their ROZ would shut down air operations in the entire area. If we were to fly over the range while on final approach and they detonated UXO, we would risk damaging the aircraft. I contacted HHC ops on MiRC and asked them if we could enter the ROZ or if they could go cold until we landed. HHC told me that they didn’t have communications with the guys at the range and couldn’t help us.

We scanned the range with our optics and did see activity. We continued to try and get communications with the range personnel and HHC to confirm that they were cold, while we watched as the wall of sand approached the airfield. After 10 minutes of trying to get clearance, HHC told us that they didn’t mind if we flew over but it would be at our own risk. After assessing the risk between the potential of overflying the UXO range or the inbound sandstorm, I decided to get approval from ATC to do a final approach from the opposite end of the flight line.

ATC approved the approach and we began to transition to the other side of the runway. We watched the sandstorm approach, realizing it would be close now due to the wasted time spent trying to mitigate the UXO ROZ. The crosswinds were beginning to pick up and the aircraft was crabbing badly, but it was still within landing tolerances.

When landing, there is a decision point on final approach when the aircraft is 50 feet above the ground. After the aircraft is past that point, it can no longer be waived off and is controlled by automation. Our aircraft continued on final approach and was nearing the DP. Everything was within system limitations and we committed to the landing with the wall of sand only a few minutes away. The aircraft passed the DP and continued along its glide slope, descending to 20 feet above ground level at the end of the runway.
During the landing sequence, a gust of wind hit the aircraft, creating enough turbulence to fool the onboard accelerometer into thinking that the aircraft had touched down. The aircraft software, sensing the aircraft was on the ground, cut the engine while it was still 20 feet in the air. It landed hard at the end of the runway and caused significant damage to the landing gear and payload. The aircraft was repaired and back in service by the next day, but the procedures in place took longer to correct.

I learned to not delay making command decisions over the aircraft when real danger from one procedure outweighs another procedure. In the end, the event forced changes that made the airfield safer for everyone.
SNOW JOB
CHIEF WARRANT OFFICER 3 MATTHEW METCALF
Warrant Officer Career College
Fort Rucker, Ala.

Several winters ago, I crashed my car into a guardrail on a desolate strip of road in northern New York. I am not proud of my actions leading up to that day. This accident could have been prevented, however, with my integrity and leader involvement.

My unit, like any other, conducted vehicle inspections prior to long weekends and block leave. The platoon sergeant informed us that he would be conducting vehicle inspections and had us fill out the heading information on our inspection sheet. I filled in minimal data and left the rest of the sheet blank. I would complete the rest of it the next morning. The reason? Well, on that particular day, I drove a red 1996 Chevy Beretta to work. There was no way I was going to let my boss inspect it because I knew it would never pass. What’s more, I didn’t have the money to repair all the things wrong with it. The car had four bald tires, the brakes were worn and it did not have all the required safety gear for the Fort Drum winter.

I left work that day with a plan. When I returned the following morning, I was driving my wife’s 1997 Ford Expedition. This vehicle had all the bells and whistles. In addition, it had four new Bridgestone tires and snow chains in the back. I filled out all the remaining information on the sheet and had the Expedition inspected. I had no doubt it would pass, and it did.

The next morning, I returned to work driving the Beretta, excited for the four-day weekend. It was a normal January day with snow in the forecast. Everyone was keeping an eye on a big storm heading our way while getting the day’s work done. Just before lunch, the snow began to fall and all nonessential personnel were told to head home. I was in the middle of a project and informed my platoon sergeant that I would be on the road shortly. An hour later, I left the office and walked outside into a winter wonderland.

When I got to my car in the parking lot, I started removing the snow using my hands because I didn’t have an ice scraper. I then cranked it and turned the defroster on high until all the ice melted. Satisfied that my vision wouldn’t be impaired, I hit the road. My house was 40 minutes north in Gouverneur, N.Y., but I knew today’s commute was going to be much longer. I struggled through the blinding snow for 20 minutes, trying to keep the Beretta’s bald tires on the road. Then I lost control.

The car seemed to have a mind of its own and barreled into a guardrail, breaking the axle. The car finally came to rest in a small ditch on the side on the road. Of course, there were no other vehicles on the road, and I didn’t have a phone or a plan. With my options limited, I walked about a half-mile until I reached a small house, where I called for help. I waited there for six hours until help arrived.

I learned a lot that day. I was ashamed that I did not have the money to repair my car and was afraid of what my platoon sergeant would say. I knew it was wrong, but I threw safety out the window to save face. In hindsight, this accident has made me a better leader. I remember how I felt back then and make it a point to get to know my Soldiers. As leaders, we are always enforcing the standard, but we can’t become complacent and make it a check-the-block activity, especially when it comes to safety. If my platoon sergeant knew what car I drove to work every day, I probably wouldn’t have been able to get away with switching vehicles for the inspection. Also, implementing a no-notice vehicle inspection program would have uncovered my vehicle’s deficiencies and kept me from driving my car that day.

Again, I am not proud of what I did. My actions that day had a very negative reaction. I am lucky it wasn’t worse.
COLD WEATHER BITES
PATRICIA RABAGO

Excitedly, I boarded a bus bound for Bridgeport, Calif. I was on my way to cold weather medicine training, and as a hospital corpsman stationed with the Marines, I knew this school would significantly enhance my capabilities. The air felt a little thinner as I stepped off the bus and saw snow-covered mountains in the distance.

After a morning of in-processing, my classmates and I received our cold weather gear. Most might assume there’s not much to this type of gear, but we received more than just boots, jackets and gloves. We were issued cool equipment like cross-country skis and special sunglasses. The instructors gave us a class on how to use the equipment and why these items were important. They also covered acclimatization, cold weather injuries and shelters. Finally, we were ready to head up the mountain for field training.

As I packed, I remembered the instructors telling us that our gear was expensive and if we lost any of it, we’d be responsible for the cost. I didn’t have a lot of money at the time, so I decided to not take the special sunglasses. Instead, I brought my cheap personal sunglasses. I’d later discover that was a bad idea.

The first day on the mountain, we learned how to maneuver in the snow and build a shelter. During the first exercise, I wore the gloves I was issued, but my hands became painfully frozen after manipulating snow all day. I spoke up and an instructor gave me a pair of mittens. It turns out that I had a mild case of frostbite, but I charged on anyhow.

Day two was equally busy as we prepared for a mass-casualty exercise. For some reason — maybe because it was cold — I subconsciously disregarded the class we had on hydration and didn’t drink enough water. I paid for that bad decision and was dizzy and nauseated by nightfall. Dehydrated, I carefully replenished my fluids for the remainder of the evening. I was determined to not be sent home!

I was feeling better the next day as we headed farther up the mountain. The ride up was fun, as we held onto a rope that was attached to a snowmobile; however, we were expected to get down the hill on our own. It was a great day of training but my eyes were burning and sensitive to light by the time we finished. I found an instructor and reported my condition. He sat me in a tent to rest and recover from snow blindness.

Luckily, I recuperated from my cold weather injuries and graduated from the class. In hindsight, I believe those injuries have actually helped me throughout my career. From personal experience, I know what to look for in potential cold weather injury patients.

Before you head out into cold weather, either tactically or for recreation, take appropriate precautions. It doesn’t take a lot of exposure to the elements to take you out of commission. Trust me, I’ve been there and done that!

FYI
Visit the U.S. Army Public Health Command, http://phc.amedd.army.mil, for more information about cold weather injury prevention. Additional information can be found in TB MED 508, Prevention and Management of Cold-Weather Injuries.
CREW MIX-UP
CHIEF WARRANT OFFICER 2 BERNARD HIGDON
B Troop, 6-17 Cavalry Regiment
Fort Wainwright, Alaska

While deployed to Camp Taji, Iraq, with Blackfoot Troop, 6th Squadron, 17th Cavalry Regiment, as an OH-58D pilot, our troop was tasked with conducting different missions in Baghdad, Balad, Ramadi, Al Asad and areas in between. Flight crews would show up about the same time before their missions to ensure the paperwork was completed and there weren’t any changes to the schedule. Changes to the flight schedule were a common occurrence during our deployment due to pilots getting hurt, sick, tasked with other duties or just running out of duty day. You could bet there would be at least two to three name changes per week.

On this particular day, I was on the night shift, scheduled to fly right seat trail with one of our troop instructor pilots who was the air mission commander for the flight. Both of us had been flying in the AO for at least six months and were very familiar with the area. Our lead ship was crewed with one of the squadron’s staff aviators — who was the pilot-in-command, call sign “Dakota” — flying right seat and one of our new platoon leaders in the left seat. Both had been flying in the AO for some time, but not with each other.

We received our S-2 briefing, and the AMC conducted a thorough team brief. As the norm, lead would communicate with all air traffic controllers and ground units and trail would communicate with Baghdad radio and higher commands. Prior to our takeoff, I had some doubt in my mind about the crew mix for our flight. Even though the staff aviator had several thousand hours in the OH-58D, the majority of the knowledge for the AO was in the trail aircraft. However, I figured that since the AMC was OK with the crew mix, then I would be as well.

We completed the first of three missions for the night and all was well. We then decided to conduct refueling operations at Baghdad International Airport so we could get maximum station time for the next mission. To get to BIAP from the southeast of Baghdad, we had to fly through three different controlled airspaces: Embassy, Liberty and BIAP. All had different control points for ingress/egress; however, the AMC wanted to keep it simple and fly around them. We were briefed that a team of AH-64s would be working the south/southwest area of BIAP, which made sense because approaching from the north via “Dakota CP” would allow for airspace separation and deconfliction.

En route to BIAP, I noticed we were taking a different route than what I usually took to maintain flight outside of the different controlled airspaces. I brought it up to the AMC, who must have been reading my mind, because he had jumped on the radio and asked lead where they were going. A few seconds passed and, due to our location, lead requested to enter BIAP from the east. The only way to do so required a transition from 1,200 feet mean sea level altitude that would allow us to fly over the civilian side of the airport without affecting traffic. We were currently flying in Liberty airspace at about 700 feet AGL. The AMC granted the request and lead initiated the climb.

I initiated my climb and watched Liberty to ensure no other aircraft were departing the airspace. At the same time, the AMC was looking to the left to see if he could find the AH-64s that were flying to the south of BIAP. Once I looked back to the front, I was in shock. I had an Apache, no more than a few rotor disks away, conducting a dive and banking right in front of me. I immediately pulled more power and banked to the left, hoping the other Apache was not flying nearby. Lucky for us, it was not. We continued with the transition and the AMC had a long talk with the PC of our lead aircraft.

The rest of the night was uneventful. We completed our missions and returned to Camp Taji. After debrief and a thorough team after-action review, we decided to get in contact with the AH-64 pilots to find out what happened and how we had a near midair accident. After talking with them, we found out there were multiple mistakes made that could have been costly.

The AH-64 pilots had completed their mission and were conducting reconnaissance in an area that was different from what was in the S-2 brief. There was also confusion when our lead aircraft requested to conduct the transition into BIAP using his “Dakota” call sign. The AH-64 pilots assumed we were entering from the “Dakota CP” from the north, which we had originally planned to do, and not entering from the southeast. Due to the overlapping airspace of BIAP and Liberty, both flights were switching between ATCs and didn’t hear, see or realize what the other team was doing.
When all was said and done, I felt the biggest mistake happened before takeoff. With the majority of the experience being in the trail aircraft, that meant the possibility of task saturation for the PC of the lead aircraft. There could have been at least four lives lost and two aircraft destroyed that night, plus possible civilian casualties on the ground. Crew mix plays a big part of flight planning and should never be taken lightly.
**OUT THE DOOR**

MASTER SGT. WANDA L. KAHL
Operational Support Airlift Agency
Fort Belvoir, Va.

Picture this: You live on a farm in North Dakota, the temperature outside is just 7 F and the ground is covered in snow. You’re in the house hanging out with about eight family members (mom, dad, cousins, aunts and uncles) when one of your friends calls and asks you to come into town for a little while. You tell everyone goodbye and head outside only to find somebody has blocked in your vehicle. A “normal” person probably would either get the owner to move the car or move it himself. But we’re talking about my family, and they are anything but normal. Here’s our story.

My mom and I were visiting my aunt and uncle, who live on a farm 30 minutes away from any sort of civilization. My cousin, who we’ll call Joe, needed to head into town, but two cars had blocked him in the driveway. My cousin, Naomi, gave Joe the keys to both cars so he could move them. This is where the trouble started.

For as long as I could remember, Joe had a bad habit of leaving the door open and leaning halfway out when backing up a vehicle. We all told him this was dangerous and that one day his luck was going to run out. I’m guessing by now you have a pretty good idea where I’m going with this.

Joe had to walk through about two feet of snow to get to the cars. After successfully moving the other two vehicles, he jumped into his truck. As he backed up, the snow stuck on the bottom of his boots started melting, which made the pedals slick. Suddenly, his foot slipped off the gas pedal and got caught between it and the brake pedal. While he focused on getting his foot unstuck, he lost his balance and fell out of the truck with his foot still halfway on the gas. The truck continued to travel backward — with Joe’s head dragging along the ground — and no one around to stop it! Eventually, the truck hit a building and came to a stop.

Back inside the house, my mom, aunt, uncle, cousins and I continued our visit, unaware of what was going on outside. After about 20 minutes, my aunt finally asked, “What happened to Joe?” Naomi went outside to check on him and saw the truck smashed against the building and Joe hanging out the door unconscious. Naomi ran back to the house to tell us what had happened. As I called 911, my aunt tried to revive Joe, but he was unresponsive. By the time the ambulance arrived, Joe was still out. The emergency personnel loaded him into the back of the ambulance and took him to the hospital, which was nearly an hour drive.

At the hospital, doctors diagnosed Joe with a broken neck and back and rushed him into surgery. Fortunately, the surgery was a success, but Joe faced a long and painful physical rehab ahead. His right arm was also badly injured, and the doctors were unsure if he would even regain feeling in his hand. Despite the severity of his injuries, they told him he must have had a guardian angel watching over him. Because of the length and the speed that he was dragged, he should have been dead.

Three years later, after many months of physical therapy, Joe is officially healed. He does not have all the feeling back in his right hand, but he did regain about 95 percent of it, which is better than doctors expected. This accident was one of the scariest things I have ever experienced, but it brought our family closer. We all learned life is too short and that we need to embrace it, taking nothing for granted. I am thankful to say that Joe also learned his lesson and quit backing up vehicles with the door open.
ON SHAKY GROUND
ALLEN MOORE
Installation Safety Office
Fort Hunter Liggett, Calif.

When folks think of hazardous weather during wintertime, they probably envision snow and ice-related storms. That’s not the case for my family and me. We witnessed a very different type of weather phenomenon in December 2003 — the San Simeon earthquake.

My son and I were on an afternoon motorcycle ride on the back roads to Fort Hunter Liggett, Calif., just north of Paso Robles. We were following each other and had just gone into a right-hand sweeper when my motorcycle inexplicably jumped off the road. I was able to maintain control, but it felt like the bike had two flat tires. I pulled off to the shoulder to check on my son and was relieved to see him safe about 500 yards behind me. Like I, he was checking over his bike, trying to determine what had happened. Nothing appeared to be wrong with either motorcycle, so we decided to continue our ride.

We saw a lot of debris along the road, and I deduced that we had experienced an earthquake. At Fort Hunter Liggett, the gate guards confirmed my theory. (We’d later learn that the 6.5-magnitude quake caused major damage throughout the central coast of California and killed two people.) We made our way to my wife’s office and, thankfully, she was OK. I then tried to call my father, who was at home when the earthquake hit, but the lines were busy. As I drove to his house, I feared the worst.

The outside of the house seemed fine; however, as I walked through the front door, everything wasn’t as rosy. My father was safe, but the interior of the house was in shambles. I immediately turned off the gas and water. Surveying the house, I saw an array of broken televisions, dishes and wall decorations. Luckily, the house didn’t sustain any major structural damage and, best of all, my family was safe.

Afterward, I realized how ill prepared we were for an earthquake. If we lost electricity, heat and water, what would we have done? How would we keep food cold? What if we’d been injured?

Hazards are all around us and come in many forms. Mother Nature has a whole slew of natural disasters she can throw at us, from earthquakes and hurricanes to tornadoes and floods. While there is no preventing these disasters, we can somewhat minimize the after effects by being prepared. The following actions, courtesy of ready.gov, can help protect you, your family and your property in the event of an earthquake.

• Build an emergency kit and make a family communication plan.

• Fasten shelves securely to walls.

• Place large or heavy objects on lower shelves.

• Store breakable items such as bottled foods, glass and china in low, closed cabinets with latches.

• Fasten heavy items such as pictures and mirrors securely to walls and away from beds, couches and anywhere people sit.

• Brace overhead light fixtures and top-heavy objects.

• Repair defective electrical wiring and leaky gas connections. These are potential fire risks. Get appropriate professional help. Do not work with gas or electrical lines yourself.

• Install flexible pipe to avoid gas or water leaks. Flexible pipes are more resistant to breakage.

• Secure your water heater, furnace and gas appliances by strapping them to the wall studs and bolting to the floor. If recommended by your gas company, have an automatic gas shutoff valve that is triggered by strong vibrations installed.
• Repair any deep cracks in ceilings or foundations. Get expert advice if there are signs of structural defects.

• Be sure the residence is firmly anchored to its foundation.

• Store weed killers, pesticides and flammable products securely in closed cabinets with latches and on bottom shelves.

• Locate safe spots in each room under a sturdy table or against an inside wall. Reinforce this information by moving to these places during each drill.

• Hold earthquake drills with your family members: Drop, cover and hold on.

All 50 states and five U.S. territories are at some risk for earthquakes. Earthquakes can happen at any time of the year. My experience put things into perspective. I decided I would be prepared for the next disaster. How about you?

FYI
For more information on earthquake preparedness, visit http://www.ready.gov/earthquakes.
WAITING FOR THE CALL

CHIEF WARRANT OFFICER 2 RICHARD COOPER

The air ambulance business can be challenging, but it’s absolutely necessary. Sometimes I feel it doesn’t receive the recognition it deserves. Nevertheless, I hope to never have to fly a medevac mission because that means one of our own or an ally is a casualty. Unfortunately, casualties are a part of war, and the following story chronicles one of my experiences in Iraq in 2010.

It was a hot summer day and I was on a 48-hour medevac duty as the pilot of a four-man crew that also included a pilot in command, medic and crew chief. We had already completed our morning aircraft run-up and checks. Also, we conducted our morning crew mission briefs for the duty day. When on-duty in a ready-up status, the No. 1 priority for the crew is to be rested. There is no set schedule of when Soldiers could get hurt, so the crew has to be diligent in being rested and ready at all times day or night.

After our crew finished the aircraft run-up and checks, which are to be completed every morning, I decided to go to my room and take a nap. It was rare to receive urgent medevac missions, so many times I would take off my uniform top, kick off my boots and relax or nap if needed. But today, for some reason, I chose to fall asleep in my full uniform.

It was about noon and I was deep into a nap when the call came on my handheld radio — “Medevac, medevac, medevac!” It immediately woke me and I jumped up, grabbed the radio, ran out to our aircraft and strapped in to start going through the checklist all the way to engine start. The crew chief met me at the aircraft to prepare the cabin for the mission. The PC and medic ran to flight operations to receive the mission information.

As I was going through the checklist, I radioed into flight operations and requested the grid coordinates for the injury and input them into the aircraft’s GPS. The PC and medic finished the flight operations briefing and ran to the aircraft and strapped in. We then finished the start-up procedures and lifted off. Our Black Hawk was wheels-up in less than eight minutes. What a rush to come out of sleep to taking off less than eight minutes later on an urgent mission.

We flew toward where the GPS was pointing, and I coordinated with the PC to double-check that I input the correct grid coordinates. The PC and I then coordinated. I would fly and he would navigate the leg to the point of injury, and vice versa on the leg back to the hospital on the base. The information we had at the time was that the point of injury was a convoy on a highway in the middle of nowhere. Also, the convoy had secured the area and we were told to look for and land at the green smoke. With my inexperience, I figured it would be fairly easy to identify the landing zone, but I had a hard time interpreting what was on the ground from altitude. With the PC’s help, I saw the green smoke and the LZ came into sight.

Experience has shown us that a major concern for all desert landings is browning out in the dust. The PC and I briefed the element of dust on the landing and I initiated the approach. We were landing on an asphalt highway, so I assumed the dust wouldn’t be too bad. I was mistaken; we completely browned out! I could barely maintain a piece of the road through my chin bubble. It was a very intimidating moment for me, but, thanks to good unit pre-deployment training, I landed the aircraft without any issues. To my surprise, it was one of the smoothest, softest landings I’ve had to date! It’s interesting how your best performance can prevail in the heat of the moment.

After landing, the medic and crew chief exited the aircraft and performed their duties to receive and secure the patient inside the cabin. We flew back to base and handed off the patient to the medical team. The injured individual was an Iraqi national contractor who was driving a vehicle that was towing an M93A1 Fox (a chemical, biological, radiological and nuclear reconnaissance vehicle) on a trailer with a Mercedes cab. Apparently, this individual was distracted and drove into the back of the semi-trailer in front of him. The impact severed both of his legs near the knees and caused other injuries. A former British special forces soldier trained as a combat medic was the first responder on the ground caring for this patient. I believe his excellence in packaging the casualty for medevac saved the man’s life.

One lesson learned from this was to never be complacent. Even when op-tempo is slow, be prepared for the worst. I was sleeping when this call came through, which is fine, but it was noon and I was tired from staying up late the night before doing personal non-mission-related activities. Also, I learned to approach every potential dust landing as a brownout. As I’ve stated, the mission went well, but I could have been better rested and mentally prepared, which would mitigate the potential for any mishaps.
ACCIDENT BRIEFS

AVIATION

UAV

MQ-1C
Class A
The aircraft was about 2.5 hours into flight when the crew experienced low manifold pressure and indication of an engine failure. During an attempt to return to base, the aircraft lost altitude and struck a ridge. The system was recovered, but total destruction was reported.

UH-60M
Class B
The aircraft touched down on an upslope. All four main rotor blades made contact with the slope. The crew raised the aircraft and repositioned it 30 feet away before returning to the forward operating base without further incident.

GROUND

PERSONNEL INJURY
Class A
A Soldier was killed during an on-duty airborne jump when his parachute reportedly failed to fully deploy and he struck the ground.

A Soldier died after being struck by a train. Alcohol use was reported.

A Soldier drowned while swimming back to shore with another Soldier.

A Soldier was killed when his personal airplane lost power and crashed.

DRIVING

PMV-4
Class A
A Soldier was killed when his vehicle crossed the centerline and collided with another vehicle. At the time of the accident, the Soldier was driving another Soldier to a medical appointment.

A Soldier was struck and killed by a vehicle as she waited outside her car for assistance for a flat tire.

A Soldier died when he lost control of his vehicle, reportedly at a high rate of speed, and struck a tree.

A Soldier was killed when he ran off an interstate and struck a barrier, causing his vehicle to burst into flames.

PMV-2
Class A
A Soldier was killed in a hit-and-run accident.

A Soldier and his wife were killed when their motorcycle stuck the rear end of a van at an intersection.

A Soldier was killed when his motorcycle overturned after a jump on a dirt bike trail. The Soldier was wearing his full personal protective equipment.

A Soldier was killed when he lost control of his motorcycle on an access ramp and struck a concrete barrier.

A Soldier died when failed to negotiate a curve while traveling at a high rate of speed, lost control, fell off the motorcycle and struck a guardrail. The Soldier was a motorcycle mentor.