Have you checked out the U.S. Army Combat Readiness Center’s Range and Weapons Safety Toolbox? It was developed to aid leaders in the management of range operations and safe weapons handling. The toolbox provides a centralized collection of resources to establish and maintain safe and effective ranges and training programs for military and privately owned weapons. To learn more, visit https://safety.army.mil/ON-DUTY/RangeandWeaponsSafetyToolbox.aspx. An ARO login is required.

FYI

Cold temperatures can greatly affect the maintenance, function, and employment of infantry weapons. To properly handle and care for your weapon under a variety of adverse conditions, you must take temperature into consideration. Your weapon is only as good as its maintenance. This is especially true when the mercury falls below freezing.

It is very important that you never let condensation form on your weapon. Condensation, often referred to as sweating, forms on weapons when they’re moved from extreme cold conditions to any type of heated environment. When the weapon is reintroduced to the extreme cold, the moisture refreezes and causes the internal mechanisms to freeze together, causing stoppages. For this reason, it’s best to leave weapons outside during freezing temperatures.

When left outside, weapons should be readily accessible, guarded, and sheltered to keep ice and snow from accumulating in the working mechanisms, sights, or barrel. Because the condensation process will continue for about an hour after bringing it into a warmer environment, wait until the sweating stops before attempting to clean the weapon. Once you’re inside the shelter, keep your weapon near the floor to minimize condensation. In addition, keeping the interior of the shelter close to 32°F will minimize condensation.

Once you move back into the cold, operate your weapon manually by pulling the charging handle to prevent the internal parts from freezing. Drop the magazine, ensure the weapon is clear and then charge the handle several times during the first five minutes after leaving a warm shelter.

When you clean your weapon, completely strip it and use a non-residue solvent to remove all lubricants and rust-prevention compounds. Once it’s clean, use a lubricant that won’t thicken and cause the weapon to operate sluggishly or jam. Use Lubricant, Arctic Weapon rather than Break-Free CLP in all weapons except the M249 squad automatic weapon and the M2 .50-caliber machine gun. Remember to use lubricants sparingly. Another consideration is your battlesight zero. You should battlesight zero your weapon in the area where you’re going to use it. Temperature, elevation and atmospheric pressure all affect how the weapon operates and where the round hits. A common error occurs when Soldiers battlesight zero the weapon at home station and then deploy to a different area. This may affect the weapon, leaving a Soldier to wonder why it isn’t shooting to the point of aim. If you want to engage your enemy with precision, battlesight zero your weapon in the area of operation.

These are only a few tips you should consider when operating your weapon in a cold climate. The Army will continue to operate in cold weather environments worldwide, so we must be able to maintain our weapons in any climate. Including these basic lessons in your pre-deployment training plan will help ensure you and your Soldiers are battle ready.
let’s face it, we aviators are can-do people. When confronted with adversity, we find a way to accomplish our mission. However, even with the best of intentions, we occasionally do things we later wish we had done differently.

At about 1400 on Nov. 2, 2006, I gathered the Kiowa Warrior pilots of 6th Squadron, 17th Cavalry Regiment, Fort Wainwright, Alaska, for a pre-mission briefing. I was an OH-58D(R) standardization pilot/instrument examiner and we planned to conduct winter environmental training in day, night and night vision goggle modes. Having previously completed the necessary academics, we updated the risk assessment and mission briefing forms to reflect crew changes. We also conducted a collective preflight of the aircraft, highlighting cold weather considerations. I departed for the day portion of the qualifications shortly afterward and returned about 1600 as planned. I saw there wasn’t going to be enough snow on the ground for the training at 1730. An hour later, the second pilot entered the cockpit so we could begin his training. We conducted several required maneuvers at the airfield before departing the traffic pattern at 1900. We then flew to a training area north of Ladd Army Airfield to conduct terrain flight and confined area operations. While hunting for snow to land in, the pilot identified an SUV that appeared to be stuck on its side. I assumed the controls and maneuvered the aircraft to get a better look. We saw a light and observed people inside the SUV. Knowing that sub-zero temperatures posed an immediate danger and seeing the condition of the SUV, I decided to land and assess the situation and render appropriate assistance as needed.

I chose a flat, open area along a trail 50 meters behind the SUV, which had broken through the ice, and executed an approach and landing. I aligned the aircraft with vehicle tracks on a trail in the landing zone and placed the skids parallel with the ruts, facing the vehicle. Two occupants got out of the SUV. I told the pilot to exit the aircraft and determine if they needed assistance. He opened the right cockpit door and was swinging his leg out when the aircraft settled to its left-rear side. I felt feedback in the pedals and believed the tail rotor contacted something. I’d barely announced that I was shutting down the engine when the aircraft began rapidly settling and list to the left. The ice below began breaking under the skids and the aircraft sank into a muskeg water hole. Despite my best efforts to prevent it, the rotor blades struck the ground and severed the drivetrain. After the blades stopped, the pilot jettisoned the right door and exited, turning to assist me, as I was now submerged in water up to my left armpit. The left chin bubble had broken while settling through the ice, causing water to fill the cockpit. I completed the emergency shutdown and, as I climbed across the cockpit and out of the aircraft, the pilot immediately pulled out his survival radio and emergency strobe. Using the Guard frequency, he contacted a Chinook flying in the airfield traffic pattern. The Chinook immediately responded and began orbiting over the accident scene. As they did, they relayed the situation and location to air traffic control, which sent crash rescue to the scene. I used my cellphone to call our squadron staff duty officer to initiate the pre-accident plan. Due to being wet and extremely cold, my cellphone stopped working and I could no longer initiate the recovery efforts. At minus 18 F, I quickly began to suffer the onset of hypothermia. My required additional cold weather survival equipment was on board the aircraft, trapped beneath the ice. Emergency services arrived on scene within 20 minutes and immediately treated us for hypothermia. We were transported to the hospital for evaluation after the accident scene was secured.

While at the hospital, I reflected on my actions. Could I have helped the individuals stranded in the SUV without having to land like the CH-47 that rendered aid to us? Would I have still landed? My answer is yes to both. But with regard to landing, I would’ve approached it in a more patient and deliberate manner, aware that not all hazards are obvious. A pilot’s desire to help in an emergency must be tempered by understanding the risks involved and applying the necessary mitigation. Even good deeds need to be checked with careful counsel. If we ride to the rescue without mitigating the risks, the next rescue mission may be to save us.

“At minus 18 F, I quickly began to suffer the onset of hypothermia.”
It’s easy to get that kid-like feeling at the sight of the glittering beauty of snow and ice. In fact, I still find myself getting excited about the prospect of snow. I’ve also learned, however, that snow and ice are not always so grand if we fail to take the proper precautions.

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

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

Another thing to consider is the temperature of the soles. The heater in your car warms your shoes to a temperature of the soles. The heater to women with respect to heels.

The heater in your car warms your shoes to a comfortable temperature. When you reach your snow-packed or icy parking place, human nature tells you to fling open the door and make a mad dash to the warmth inside. When you do this, the warm shoe sole hits the ice and immediately melts the surface, creating a thin pool of water between the surface and the shoe, setting up a hazardous condition. Instead, plant your feet firmly on the icy surface while still sitting in the car seat for a few moments until the shoe temperature cools down and doesn’t pool water under your shoes. Maintain a good two-hand hold on the car door when you get out and establish firm footing before walking. You should also dress for the weather conditions. Winter conditions call for more clothing. In addition to providing warmth, thick bulky layers will provide protection in case you fall. Consider a good cold weather scarf and earmuffs are also useful. Fresh snow is usually easy to traverse without falling, but conditions such as partial melting and packing of the snow can change the situation. Freezing rain, sleet and wintery mix conditions can be particularly hazardous. Remember to treat walking surfaces that look wet or are shaded by trees or buildings as if they’re still frozen, even if you have observed melting in other areas.

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

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

My mother used what I think is an old southern phrase — “All stoved up” — to describe a myriad of sore, painful or aching bones and muscles resulting from overwork or an accident. My hope is you will find something I have mentioned in this article useful for this and future winters to help keep you safe when the skies open up to freezing rain, sleet, snow or the wintery mix. It might just keep you from being “all stoved up” because of a fall on the snow and ice.
January 2018 KNOWLEDGE https://safety.army.mil

**SURVIVING BLACK ICE**

Black ice can be a serious driving hazard when the temperature dips below freezing. Black ice forms when snow, water or other types of condensation melt onto the roadway and refreeze. It is called black ice because it is difficult to see and can blend in with the road color. It is most common on bridges, overpasses and in shaded sections of the road where it can remain frozen when other parts of the road have thawed out. You need to follow certain precautions when driving in winter weather or when black ice has the potential to form on the roads.

The first precaution is to always wear your seat belt — something you should be doing anyway. Then, as you drive, watch out for black patches or what appears to be water on the road as this could be black ice. Also, just as in rainy weather, avoid using your cruise control or overdrive as these can send you out of control. Allow a generous following distance behind the vehicle ahead so you’ll have ample room to stop or maneuver if you hit ice or need to react quickly. Accelerate slowly to maintain traction and never slam on the brakes, which can cause a skid. If you notice a possible trouble spot ahead, slow down and spin out of control. If you feel your vehicle beginning to skid, quickly take your foot off the gas, as accelerating only increases your chances of spinning. Also, don’t slam on the brakes; this will send you skidding out of control. If you have a stick shift, push in the clutch or put the transmission in neutral and allow the vehicle’s momentum to carry you across the ice in a straight path. In the event that the car begins to skid, turn the steering wheel in the direction of the skid to get the vehicle back on track.

Using these techniques can make the difference between driving out of a skid and spinning out of control. While winter driving has its risks, being prepared and alert can keep you on the road and out of an accident.

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**CONSIDER ALL HAZARDS**

Several years ago I was selected to attend the Air Force’s Weapons and Safety Management course as part of my career development program. The course was about two months long, so I opted to drive to the training site in Denver, Colorado, instead of taking a commercial flight. After all, I figured I’d need some ground transportation when I got there. So I packed my recently restored Chevy Nova and left on a Friday afternoon to begin my journey.

It was fall and the drive to Colorado was enjoyable as I saw the trees turning beautiful shades of gold, brown and red. As luck would have it, winter came early to Colorado, bringing with it the first of many snowstorms. We didn’t get a lot of snow where I’d lived in west Texas and, when it did fall, the highways, roads and schools all closed. Because of that, I didn’t know how to handle driving in the snow. During my last weekend in Colorado, a blizzard dumped about two feet of fresh snow, covering the landscape, highways and roads. I took my final test and got on Interstate 25 about 10 a.m., driving slowly until I reached the south side of Colorado Springs. I remember the sky was absolutely clear and blue and, beneath it, stretched endless miles of snow and ice. I drove through Colorado’s southern border and turned off I-25 at Raton, New Mexico, heading southeast on U.S. Route 87 toward Amarillo, Texas.

As I drove, I caught up with the blizzard that had gone through Denver. It was sunset and the temperature was rapidly falling. I was 30 miles north of Amarillo when my lack of experience caught up with me. As I attempted to cross a bridge, my car began sliding and trying to swap ends. I struggled to regain control by steering into the slides but found myself a passenger in an out-of-control vehicle spinning down the highway. As I spun, the “Welcome to Amarillo” sign flashed past my windshield several time before I finally stopped, facing backward. At that moment, happiness was not seeing that welcome sign in my rearview mirror!

Two local ranchers stopped to see if I was all right and informed me I’d hit a patch of black ice on the bridge. When they said black ice, I thought they were kidding. After all, everybody knows ice is frosty white or clear, right? Wrong! I’d just learned a lesson about driving in winter weather and was fortunate I was able to walk away.

I found a hotel and stopped for the night. When I got up the next day, the sky was clear and I made it home without any further problems. Looking back, I realize I could have prevented the incident. Had I checked the weather and waited another day before leaving Denver, I would have missed the storm as it passed through the Texas panhandle. I simply did a poor job of risk management. I didn’t think about what could happen (identify hazards). My failure to assess the risks, coupled with not having experience driving on icy roads, could have cost me my life.

Fortunately, this was a close call — one of those opportunities to learn without paying a heavy price in the process. The lesson from this is simple: Consider all the hazards — including those you may face further down the road during your trip — when assessing risks. You may save yourself from running into something you won’t like.
It was a clear, crisp day in New Hampshire’s White Mountains as we flew visual flight rules in our UH-60A. The pilot in command for this flight and I had departed the Army National Guard Concord Army Aviation Support Facility for some mountain training. The winds were light enough that we practiced mountain approaches to the helipad atop Mount Washington, not far from an observatory.

We were flying without a crew in the back, and the sun coming through the windows kept us from needing to run the heater. As a result, we had very little air circulation in the aircraft. As we hovered over the pad on one of the approaches, the small vent on my pilot-side window popped open and the PC thought he smelled something. I closed the vent, commenting that I hadn't noticed anything unusual.

As we slowed to land and entered effective translational lift, we both immediately noticed something that smelled like burning plastic. Up to this point, nothing in the cockpit suggested any problems and our engine indications were all within limits. Once we were on the ground, I told the PC that because of the odor I suspected we had an electrical problem. He did a walk-around of the aircraft, looking to find the cause. Just as he was finishing, smoke began billowing into the aircraft from the right-rear part of the cabin near the rescue hoist.

He immediately reentered the co-pilot's seat and we performed a dual emergency engine shutdown and exited the aircraft. Fortunately, we had another aircraft in the vicinity. Once the smoke and fumes cleared out of the cockpit, we used our high-frequency radio — which operated on battery power — to contact them.

While the other aircraft was en route, we inspected the No. 2 engine cowling. We discovered the V band clamp connecting the engine to the hover infrared suppressor system baffle deswirler had failed. Looking closely, we could see a one-inch gap between the sections. The smell we noticed was gaskets melting in the No. 2 engine cowling. The second Black Hawk landed behind us and shut down. Its pilot walked to our aircraft, stopping to pick up a metal fin lying on the tarmac. We soon identified it as a missing fin from the deswirler. Fortunately, the PC in the other aircraft was our facility maintenance officer. He assessed the damage and took pictures of the area. We then secured the aircraft and left it under the supervision of the local sheriff’s department. The UH-60 was recovered two days later. Upon examination, maintainers found damage to the aircraft’s No. 2 engine cowling and HIRSS baffle deswirler. High temperatures also damaged sheet metal in the engine compartment.

What I took away from this incident was that it definitely pays to play it safe, especially in a peacetime environment. Choosing to land the aircraft at a suitable site and give it an once-over paid huge dividends in this case. I’d hate to think about what could’ve happened had we headed home fat, dumb and happy and something major failed.
Do you know what injuries are? They’re actually much more than broken bones, ruptured blood vessels and bruises. Injury is the damage to body tissues caused by an instantaneous or repeated force. Injury categories and examples include:

- **Acute trauma** — fractured bone, strained/torn muscle, sprained joint, open wound, animal bite, laceration, broken tooth
- **Cumulative microtrauma** — overexertion injuries, including tendinitis, bursitis, friction ulcers, stress fractures, runner’s knee, low back pain, acquired flat foot
- **Environmental** — heat stroke, heat exhaustion, sunburn, frostbite, hypothermia, altitude sickness, lightning strike
- **Poisoning** — ingestion, injection, contact or inhalation of a foreign substance (examples include cyanide, botulimum, chlorine gas)
- **Non-environmental** — thermal burns (fire, grease), radiation sickness, electromocion

The severity of an injury includes the urgency and complexity of the medical treatment, costs, time hospitalized and number of follow-up medical visits and days of lost or restricted duty. Some injuries also lead to long-term or permanent effects, such as chronic knee or back conditions, while others result in medical discharge from the military.

Austere environments and physically demanding military training and occupational duties predispose Soldiers to many types of injuries. In fact, injuries as a whole are the leading cause of Army active-duty medical encounters (Figure 1). Injuries continue to have a major impact on Army readiness through lost duty time, reduced performance and medical and disability costs.

Now that you are aware of the different types of injuries and your own injury history, consider your unique risk factors. Factors that can predispose you to a new or re-injury or increase the time of rehabilitation include individual characteristics, modifiable conditions or behaviors you can change, and external factors leaders should address to reduce injury risk.

**Individual characteristics**
- Prior injury, such as a sprained ankle, tendinitis or muscle strain of the back, can predispose you to future injuries at the same location or to a body region that has compensated for the injury (for example, when an altered gait puts more strain on your non-injured leg). Having a heat- and cold-related injury can increase your susceptibility to these same injuries.

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**Restoration of physical abilities**
Have you not sought medical care for an injury to avoid getting a profile or work restriction? If so, did the untreated injury prevent you from performing at your best?

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**TAXONOMY OF INJURIES**

**All Army Injuries**

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<thead>
<tr>
<th>Category</th>
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<th>Percentage</th>
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<tbody>
<tr>
<td>Acute Trauma</td>
<td>1,094,746</td>
<td>97%</td>
</tr>
<tr>
<td>Cumulative microtrauma</td>
<td>639,277</td>
<td>53%</td>
</tr>
<tr>
<td>Environmental</td>
<td>71,939</td>
<td>6%</td>
</tr>
<tr>
<td>Poisons</td>
<td>53,063</td>
<td>4%</td>
</tr>
<tr>
<td>Non-Environmental</td>
<td>5,632</td>
<td>0.5%</td>
</tr>
<tr>
<td>Operative/</td>
<td>Medical accidents</td>
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</tr>
<tr>
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**Figure 1.** Percent of injuries versus other illnesses and conditions treated through outpatient visits among U.S. Army active component, 2012.

**Figure 2.** All injuries by category among active Army component, calendar year 2016.

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intensity physical training and strive for leanness or low body weight. Proper nutrition has been suggested as a means to help minimize risk. Modifiable conditions or behaviors
- Lack of awareness, ignoring safety guidelines and/or not using recommended equipment are primary reasons for many traumatic injuries. Though referred to as “accidents,” most Army vehicle and motorcycle injuries, slips and falls, and mishaps with guns and machinery can be avoided. Many sports “accidents” can also be avoided with proper equipment such as mouthguards to prevent broken teeth, helmets and wrist guards for skiing and snowboarding, and military-recommended hearing and eye protection.
- Being in poor physical shape doesn’t just mean being overweight. Evidence shows that trainees and Soldiers at or below acceptable Army weight standards who have poor aerobic or muscular endurance are also more susceptible to musculoskeletal and heat-related injury. Though it is important to get in shape, it is critical to gradually increase time, weights and distances, and frequency of physical activity. Too much too soon will only increase the risk of injury. This includes gradual acclimatization to extreme temperatures or altitude.
- Illness and medications, such as for colds, upper respiratory infections or allergies, can increase the risk of heat injuries. Only take medication when absolutely necessary and ensure plenty of rest and adequate hydration.
- Smoking and nicotine-containing products inhibit the body’s ability to repair itself after injury. Evidence also ties these products to higher rates of new injuries. Stop using cigarettes, e-cigarettes and smokeless tobacco to reduce your injury risk, rehabilitation time and the threat for long-term health consequences such as lung disease and cancer.

External factors
- Excessive physical strain is often a part of Army training and job tasks, but too much strain on the body or same body parts can result in new injuries. Excessive strain on the body or same body parts can result in new injuries. The Army recognizes these hazards and requires leaders to use risk management tools to identify, assess and minimize the danger during training and operations. For example, warm, humid climates increase cases of exertional heat-related injuries, including hyponatremia (overhydration). To address this, the Army uses scientifically based heat risk categories with associated work/rest cycles and fluid consumption guidelines.

Conclusion
Now that you know your injury history and risk factors, you can make changes to reduce your injury risk and thus improve your physical performance. For additional information, visit the Army Injury Prevention website at https://phc.amedd.army.mil/topics/discond/ptsaip/Pages/default.aspx.

“THIS PAST YEAR ALONE, ARMY SOLDIERS WERE TREATED FOR MORE THAN 1 MILLION INCIDENTS OF NEW INJURIES. SURPRISING TO SOME, THE VAST MAJORITY OF THESE ARE CUMULATIVE MICROTRAUMAS, OTHERWISE KNOWN AS OVERUSE INJURIES.”
I was 18, airborne and invincible. I’d just received my enlistment bonus and decided it was time to get some transportation. I got one of my fellow troopers at Fort Bragg, North Carolina, to take me to the nearest Suzuki dealer. I wanted to buy a 650 GSL motorcycle, but my credit wasn’t good enough to qualify for a loan, so my only option was to pay cash for a 450 GSL. Being the highly intelligent and experienced (translate that to young and dumb) person I was, I quickly purchased the motorcycle. After a short lesson on how to ride by the salesperson, I was on my way.

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

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

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

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

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

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

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

There is a saying that goes something like, “We know the moment when we were born, but we don’t know the moment when we will die.” I can tell you that getting safety training before you ride is the best way to ensure that latter date comes much later.
Central Alaska is beautiful. The mountainous landscapes are truly a sight to behold. That’s assuming you’ve got good weather.

I was preparing for my instrument flight evaluation as part of my annual proficiency and readiness test. On this day, I would be flying from Fort Wainwright, Alaska, to Fort Greely with the company standardization pilot/instrument examiner. The weather forecast was great for both the departure and arrival airfields. However, the SP/IE and I could expect to be flying in instrument meteorological conditions for almost the entire en route portion of the flight. Due to the limited instrument flight rule route structure in central Alaska, we had both flown this route numerous times. We expected an easy instrument flight evaluation. Little did we know what was in store for us.

With the oral evaluation and preflight complete, we departed Ladd Army Airfield IFR, heading toward Fort Greely. Departing to the south was uneventful and actually pleasant. The atmosphere in the cockpit was relaxed, a feeling I have learned to temper with added vigilance. The UH-60A we were flying was one of the oldest in the fleet at that time. Having recently been moved from Korea to Alaska, there was no doubt this airframe had some time on it.

Halfway to Fort Greely, established on the Victor airway at 4,000 feet and in the clouds, I noticed something strange with my attitude indicator. It began rocking left and right and then started to spin very quickly. I announced this to the crew, then looked cross cockpit and saw the same thing happening on the co-pilot’s side. Next, I noticed a problem with my horizontal situation indicator. All the needles were spinning. Every second the indicator needle swung 180 degrees, stopped and then returned to the present heading. As I announced this, the same situation was also occurring on the other side of the cockpit. The seasoned warrant officer SP/IE, who had more than 4,000 hours, told me he had the controls. He said I was doing fine and we would have to put into practice our flying partial panel training. He then told me to contact air traffic control, advise them of our situation and request radar vectors to the precision approach radar at Fort Greely, where we would land. We followed the vectors to the PAR, executed the approach and landed safely. Later, a maintenance test pilot conducting the post-flight inspection found a loose cannon plug on the command instrument processor. That is what caused the gyro’s to spin out of control.

Lessons learned

We practice partial panel flying in the flight simulator, but it can be unsettling when you unexpectedly encounter it during flight. Flying without an attitude indicator can be challenging. Flying without a horizontal situation indicator can also be challenging. Flying without both is my idea of a bad day. Using the standby magnetic compass requires skills we, arguably, all need to review. What is the magnetic variation on your path of flight? Do you add it to your magnetic course or subtract it for your direction of travel? Did your flight planning include the true course and magnetic course on your navigation log?

Fortunately, I was a young warrant officer on my second instrument flight evaluation thus far in my career, so I completed my navigation log with great attention to detail. But it shouldn’t take an evaluation to force us into our most thorough work through of a problem. I attribute the safe outcome to the SP/IE that day. I learned a valuable lesson about complacency. Even if you’ve memorized Chapters 5 (operating limits and restrictions) and 9 (emergency procedures) of the -10, there are still malfunctions that can endanger an unprepared crew.

Finally, always be prepared with the right publications. As professional aviators, we should always have current aircraft pubs with us, no matter the training situation. Knowing what to do and how to do it can make all the difference when the needles spin.
Twentynine Palms, California, is home to the largest training area in the U.S. Marine Corps. Unfortunately, it’s also home to a lot of accidents.

As a young noncommissioned officer, it was my third trip to Mojave Viper, a combined arms exercise we participate in yearly in Twentynine Palms. The base is located in the center of the Mojave Desert, and training is extremely challenging. Knowing this, we began preparing our Amphibious Assault Vehicle platoon on vehicle, weapons and environmental safety. After three months of training, it was finally time to make our pilgrimage out west to train. This year, however, we would learn a very hard lesson.

After a long flight to California, we arrived in our new home for the next 60 days — Camp Wilson, which is located 20 miles from the main base. Camp Wilson serves as the staging area for all training units and is very basic. While there, we live in Quonset huts, eat field rations and enjoy few comforts of home there is one bright spot at Camp Wilson — the Warriors Club, which serves hot chow and beer. There was little time inside of the base camp once training started, so any free time at the end was highly anticipated. We then fell in on our gear and began to train.

The last few days of training were hot and fast-paced, and the Marines had performed well during the exercise. Artillery fire, machine guns and infantry all moved in unison to complete the training. Everyone “smells the barn” at the end of an operation, and completing the Mobile Assault Course was no different. Everyone was excited to be back at the base camp, there was plenty of work left to complete. The vehicles had to be safely parked and cleaned, and the weapons had to be cleared and cleaned. As always, I stressed to my crew the most important rule of clearing our weapons: Never point your weapon at anything you don’t intend to shoot.

I climbed on top of my vehicle to pull the barrel out of my M2 .50-caliber machine gun, ensuring my body was out of the way. It is easy to stand in front of the barrel of the weapon to uninstall it, and all the Marines knew this. The M2 has a huge round, and if it discharged anywhere near you, it was seriously going to hurt. As I was pulling my gun, I heard a loud bang down the line. I immediately knew it was the sound of a discharging M2. The next thing I heard was terrible: “Corpsman up!” I knew someone was hurt.

While uninstalling his M2, a crew chief violated one of the cardinal safety rules by standing in front of the weapon and was struck by a round that was left in the chamber. The round passed through the young Marine’s chest and left a large exit wound. He was dead before he hit the top of the vehicle. To make matters worse, he had just re-enlisted and was engaged to be married soon.

Looking for more information on safe weapons handling? Visit the U.S. Army Combat Readiness Center’s Range and Weapons Safety Toolbox. The site was designed to aid commanders and leaders in the management of range operations and safe weapons handling by providing a centralized collection of resources to establish and maintain safe and effective training programs for ranges and both military and privately owned weapons. Check it out at http://safety.army.mil/rangeweaponssafety.
It was just a standard night vision goggle 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 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 still 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. I turned out, I 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 its 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 be 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.
The skier and snowboarder safety code, which is printed on virtually every lift ticket and posted in numerous places around most ski areas, lists some inherent dangers and risks. They include existing and changing snow conditions; bare spots, rocks, stumps, trees; collisions with natural or manmade objects or other skiers; variations in terrain; and the failure of skiers to ski within their own abilities. Winter weather, especially in mountainous terrain, can range from sunny and bright to bitterly cold. Conditions can change rapidly from one extreme to the next, one slope to the other, so it's important to monitor the conditions constantly and recognize the signs of approaching bad weather. When boarders head up mountains or steep hills, they become susceptible to acute mountain sickness, which occurs when a person's body doesn't adapt to its current altitude. The most frequent symptoms include headache, queasiness, tiredness and trouble sleeping. Following these simple guidelines from the Colorado Altitude Research Institute may minimize symptoms of AMS: • Exercise in moderation. • Drink more water than usual. When you combine altitude with physical exertion, you need to drink before you get thirsty. • Eat food high in carbohydrates — such as grains, pasta, fruits and vegetables — and avoid salty foods. • Limit alcohol consumption. It's tempting to party the evening you roll into a ski town. However, drinking alcohol and cheating yourself on sleep the night before you ski is a big mistake. Use common sense. • If your symptoms get worse or do not go away after a day or two at altitude, you need to seek medical help. All medical centers in high-altitude communities are used to dealing with these symptoms. Before you venture out to the slopes, it's important to have the right gear and know how to use it. Here's a list of gear you'll need each time you head up the mountain:
Snowboard. In general, an all-mountain snowboard is the best bet for beginners, rather than a specialty board, which is harder to turn and balance on. Also, the longer a board is, the more difficult it will be to control. Choose a board that is the right length for your size and snowboarding ability.

Boots. As the connecting point to your snowboard, boots are a vital piece of equipment. Make sure to get real snowboard boots (not moonboots or hiking boots) that fit correctly to keep your feet comfortable and warm. For most beginner snowboarders, soft snowboard boots are easier to control than hard boots. Always keep your boots laced tight to give your feet and ankles the support they need.

Bindings. Most snowboard bindings are of the strap-on variety, which are compatible with the greatest number of boots. Be sure to keep your straps securely fastened to give you the most control over your snowboard. Some bindings, though, are step-in types. Make sure you get the right bindings for your boots, and have a trained professional at a snowboard shop adjust the angle of your bindings to put your feet in the right positions.

Helmet. As is the case with many sports, a helmet is the most important piece of equipment when it comes to preventing life-threatening injuries. You should wear one any time you go boarding. Get a helmet that fits properly and keep the chin strap fastened to keep it securely in place. Also, make sure to get a real snowboard helmet (not a football or bike helmet) that allows space for your goggles and ventilation on warm days.

Goggles and sunglasses. The sun’s rays are considerably stronger at high altitudes than at sea level and when they bounce off the gleaming white snow, they can be a serious threat to your eyes. Sunglasses are the best way to protect your eyes from the sun’s rays, but you should also always bring a pair of goggles that are the right size in case it gets cold or begins to snow. Goggles are also better at protecting your eyes from tree branches and other hazards.

Gloves or mittens. Many snowboard gloves include pockets for hand warmers to keep your fingers nice and toasty. If you’re still worried about your hands getting cold, however, it’s a good idea to wear mittens, which are generally warmer than gloves.

Dress in layers. Layering allows you to accommodate your body’s constantly changing temperature. For example, dress in polypropylene underwear (tops and bottoms), which feels good next to the skin, dries quickly, absorbs sweat and keeps you warm. Wear a turtleneck, sweater and jacket. Bring a headband or hat with you to the slopes to help prevent heat loss through your head.

Wrist guards. When you first learn how to snowboard, you will spend a lot of time falling forward and breaking your fall with your hands. This can lead to broken wrists and forearms, which are very common snowboarding injuries. Be sure to wear rigid wrist guards designed for snowboarding or in-line skating to protect yourself when you fall.

Once you have your gear, it’s time to head out, right? Not quite. Here are a few more tips you’ll need to consider before you strap into your board:

- Make sure you’re in shape beforehand. Don’t try to ski yourself into shape.
- When buying skiwear, stick with fabrics that are water and wind resistant. Look for wind flaps to shield zippers, snug cuffs at wrists and ankles, collars that can be snuggled up to the chin and drawstrings that can be adjusted for comfort and aid in keeping the wind out.
- Wear sun protection. The sun reflects off snow and is stronger than you think, even on cloudy days.

Snowboarding is a high-speed extreme sport that exposes individuals to different levels of danger. Each year, snowboarders are seriously injured and some even die due to human errors. Before you attempt snowboarding, have some basic knowledge of the possible risks you may encounter on or off the slope. The little time spent assessing the risks can save a whole lot of time healing or, worse, your family from grieving.
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 is 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 had just made it up to the cab when 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.

“AAS 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.”

WARRANT OFFICER BARRY G. REED JR.
A COMPANY, 206TH MILITARY INTELLIGENCE BATTALLION
FORT HOOD, TEXAS

It was April, and I was preparing for my first permanent change of station move to Fort Huachuca, Arizona, from Fort Bragg, North Carolina. During my monthly checks of my pickup truck, 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 that preventive maintenance would later pay off.

“I T WAS APRIL, AND I WAS PREPARING FOR MY FIRST PERMANENT CHANGE OF STATION MOVE TO FORT HUAUCHUCA, ARIZONA, FROM FORT BRAGG, NORTH CAROLINA. DURING MY MONTHLY CHECKS OF MY PICKUP TRUCK, 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 That Preventive Maintenance Would Later Pay off.”

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 would not 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 private motor vehicles and motorcycles just as thoroughly. Regular PMV 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.

“A SIGNIFICANT EMOTIONAL EVENT”

WARRANT OFFICER BARRY G. REED JR.
A COMPANY, 206TH MILITARY INTELLIGENCE BATTALLION
FORT HOOD, TEXAS
Join the USACRC community on Facebook. Also, don’t forget to connect with Army safety at these sites:
If it happens ...

https://safety.army.mil
February 2018

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Join the USACRC community on Facebook
Will you be crossing a railroad track today? If so, your life could be in danger.

There are thousands of railroad crossings dotting the more than 160,000 miles of track in the U.S. If you encounter a train inside a railroad crossing, the train will always win. A locomotive weighs 200 or more tons, and that’s not counting the freight cars attached. To make a comparison, a freight train hitting your vehicle is like your car hitting a soda can, but with one big difference — you’re inside!

Think this is a rare occurrence? Think again. Every three hours, a person or vehicle is struck by a train. For example, in 2010, more than 800 people were injured and 260 were killed in 2,004 railroad crossing accidents. More often than not, these collisions occurred when drivers maneuvered around the gates at activated railroad crossings, not realizing an approaching train was less than 20 seconds away.

Fortunately, you don’t have to join that statistics column. Shown below are some simple tips to keep motorists safe where the rail meets the road.

• Trains and cars don’t mix. Never race a train to the crossing; even if you tie, you lose.

• Flashing red lights indicate a train is approaching from either direction. You can be fined for failure to obey these signals. Never walk around or behind lowered gates at a crossing, and do not cross the tracks until the lights have stopped flashing and it’s safe to do so.

• The train you see is closer and moving faster than you think. If you see a train approaching, wait for it to go by before you proceed across the tracks.

• Be aware that trains cannot stop quickly. Even if the locomotive engineer sees you, a freight train moving at 55 mph can take a mile or more to stop once the emergency brakes are applied. That’s the equivalent of 18 football fields.

• Never drive around lowered gates; it’s illegal and deadly. If you suspect a signal is malfunctioning, call the 1-800 number posted on or near the crossing signal or a local law enforcement agency.

• Don’t get trapped on the tracks. Proceed through a highway rail grade crossing only if you are sure you can completely clear the crossing without stopping. Remember, the train is 3 feet wider than the tracks on both sides.

• If your vehicle ever stalls on a track with a train coming, get out immediately and move quickly away from the tracks and back toward the direction from which the train is coming. If you run in the same direction the train is traveling, when it hits your car, you could be injured by flying debris. Call local law enforcement for assistance.
• At a multiple track crossing waiting for a train to pass, watch out for a second train on the other tracks. That train could be approaching from either direction.

• When you need to cross train tracks, go to a designated crossing, look both ways and cross the tracks quickly without stopping. Remember, it isn’t safe to stop closer than 15 feet from a rail.

• Always expect a train. Freight trains do not follow set schedules.

Rail safety is for everyone, not just drivers. Pedestrians and others who choose to walk or play around railroad tracks are at extreme risk of being struck by a train.

When I was a child, I used to put coins on the tracks and watch the train flatten them. If I only knew then what I know now. Trains do not make the loud “click, clack” noise as in the past. Modern-day trains are much quieter. Trespassers who get hit by trains are usually involved in other activities such as riding all-terrain vehicles or motocross bikes, walking down the center of the track while wearing earbuds or conducting physical training.

Pedestrians should keep the following tips in mind when near railroad tracks:

• Railroad tracks, trestles, yards and equipment are private property. If you are in a rail yard uninvited by a railroad official, you are trespassing and subject to criminal prosecution. You could be accidentally injured or killed in a busy rail yard.

• Trains overhang the tracks by at least 3 feet in both directions and loose straps hanging from rail cars may extend even further. If you are in the right-of-way next to the tracks, you can be hit by the train.

• Do not hunt, fish or bungee jump from railroad trestles. There is only enough clearance on the tracks for a train to pass. Trestles are not meant to be sidewalks or pedestrian bridges. Never walk, run, cycle or operate ATVs on railroad tracks, rights-of-way or through tunnels.

• Do not attempt to hop aboard railroad equipment at any time. A slip of the foot can cost you a limb or your life.

• Be aware trains do not follow set schedules. Any time is train time!
Author’s note: Let’s cut to the chase: No one has ever been shot with an unloaded gun. A bang is always conclusive proof that a gun was loaded. Firearms are discharged in one of only two ways: intentionally or negligently. Once the bang happens, it’s out of your control. This article is about how to control your firearm.

I have a muzzle magnet. As best as I can tell, it’s located just in front of my navel. Firearm muzzles just seem to swing mindlessly toward it whenever I’m in or near a group of shooters. When a shooter carelessly points a muzzle at me, I immediately say something and they usually get upset that I implied they handled their weapon unsafely. They defensively tell me that they know it’s unloaded, they just checked it yesterday and ask, “Do you think I’d do something that stupid?” My retort is always, “Well, I don’t know if it’s unloaded and I don’t care when you checked it. I control the muzzle of my firearm and expect the same from others!”

CONTROL YOUR MUZZLE

JAMES A. REDDICK
Yakima Training Center
Joint Base Lewis-McChord, Washington
Try this yourself. On the range, stay aware and notice how many other people point guns at you. Controlling the muzzle of your firearm is an “always” requirement, so it doesn’t matter if it’s on duty or off duty. A negligent discharge will result in the least damage when the muzzle is pointed in the safest direction possible. If you witness someone mishandling a weapon, speak up! And stay cool when someone reminds you to control your muzzle.

Guns fire when the trigger is pulled; triggers get pulled when fingers are on them. If you don’t want your gun to fire, don’t have your finger on the trigger. I intentionally keep my finger off the trigger when I don’t want to fire it and so should you.

“The safety is on,” is an excuse that covers the gamut of firearm handling sins. That excuse doesn’t give me a warm, fuzzy feeling. To me, that is kind of like saying that you are driving drunk, but the cruise control is set for the speed limit. Remember, one sensible action doesn’t negate the foolish ones. I don’t really trust mechanical safeties. I use them religiously, though, because they work most of the time. What I trust is the “safety” between my ears and keeping the muzzle pointed in a safe direction.

Being somewhat of an oddball, I read directions. I know how to operate my firearms — how to disassemble them, clean them and reassemble them. I practice doing those things and I keep the muzzle pointed safely while doing so. When I get to the range or a hunting area, I know I can load and use my firearm safely. How many times did it take you to figure out what that little metal tab did on your Benelli? Which of the umpteen different trigger systems does your SIG have? All of that handy information is in the instruction booklet.

My guns are unloaded when they’re not in use. It’s easy to load them when needed. Do you need guns loaded and ready in combat?

Yes, indeed. How about when you’re on the firing line at the range? Certainly. When the pistol is bouncing around under the seat of the pickup? When the shotgun is in the closet? When the rifle is next to the bed? You decide. You have to make that decision based upon your personal situation and the amount of risk you can accept. However, the jurors may have a different viewpoint. So will the cops, your spouse and mom. You need to practice loading quickly and safely so it becomes a skill you can count on.

There is no booze around when I’m shooting. This, too, is an always rule. Yes, beer is also booze. If you’ve had any alcohol, don’t mess with your guns at all. If your friends have been drinking, discourage them from shooting or even handling their guns. Shoot completely sober, then put the guns away, relax and enjoy your beverage of choice.

I offer this advice: Before you accept the risks and responsibilities that accrue with concealed carry, find a good defense lawyer, knowledgeable law enforcement officer and local prosecutor to discuss your responsibilities and the likely repercussions from actually using that firearm. If you choose to exercise those rights, you need to do so with full knowledge. Military installations do not allow concealed carry, so don’t even think about it!

I’ve found that (for me) the best way to reinforce safe gun handling skills is to shoot. There are competitive events for almost every shooting interest. The United States Practical Shooting Association caters to action-oriented, very competitive people; International Defensive Pistol Association matches center around self-defense scenarios; Cowboy Action Shooting is mostly just for fun; and trap, skeet, sporting clays and formal rifle and pistol competitions stress pure marksmanship. These competitive events are open to everyone and emphasize safe gun handling, familiarity with your firearms and enjoying the shooting sports. Our Army marksmanship unit competes, and so can you. Newbies are always welcome. Get out there and make some noise. Safe shooting! ■

FYI

Negligent discharges occur on and off duty and can happen to anyone. Awareness of safety rules and compliance with appropriate procedures helps prevent accidents. When handling weapons on the range, in combat or off duty, personnel must be aware of and use proper procedures to avoid negligent discharges and other accidents. The Range and Weapons Safety Toolbox is a centralized collection of online resources for managing range operations and safe weapons handling. The toolbox hosts various references and materials including publications, training support packages, multimedia products, ammunition and explosives information, and safety messages and alerts. By using this toolbox, Soldiers and leaders can minimize risks and sustain combat readiness. Visit https://safety.army.mil/rangeweaponssafety (AKO log in required) for more information.

Guns are expensive. Most of mine have custom work, optical sights and other accessories. I keep them locked in a safe, and I spin the dial every time I close it. Properly secured firearms are safer for, and from, everyone.

Some of you may want to carry a concealed handgun as I have done for more than 30 years. Concealed carry of firearms for self-protection is more prevalent today than ever; 49 of 50 states currently allow concealed carry in some manner.
One of the most difficult safety precautions to convince Soldiers to buy into is to remove jewelry before working around aircraft. Wedding bands, in particular, are not commonly removed because of personal convictions that we should wear the symbolic jewelry at all times. Nearly all Soldiers have seen the photographic evidence of the dangers of wearing rings, but they accept the risk either to avoid violating their personal beliefs or possibly due to threats from their spouses.

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

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

I had about 700 flight hours at the time and, as far as I could remember, always climbed out of the aircraft the same way.
Although there was nothing out of the ordinary about the way I dismounted the helicopter, this was the time my ring finger became acquainted with the tiny screw that protrudes about two threads out from the top of the armor side panel. Unfortunately, my loosely enforced personal rule of not jumping off the aircraft did not always apply to getting out of my seat after a flight. I typically pushed myself out from the step and hopped out of the aircraft. Since I am somewhat short and lowering one foot to the ground and leaving the other on the step is unnatural, the small jump down from the step had become routine. So, holding my left hand on the top of the armor panel, I pushed off and jumped to the ground just a foot or two below. My ring caught on the screw and by the time my feet hit the ground, I was in an unexpected world of pain. Initially, I tried to conceal my pain because I knew exactly how unsympathetic my crew would be. We had all seen the graphic photos and been warned about the risks of wearing wedding rings on the aircraft. Besides that, it is pretty tough to squeeze any sympathy for mistakes from aviators, in general. After a few moments of trying to be tough, though, it was a relief to scream a blue streak. Predictably, nobody felt sorry for me, but a crew chief was sure to take pictures to post at the troop medical clinic. Luckily, my ring came off my finger and my wounds were not serious; but I learned a valuable lesson through the pain of the accident and the shame of having to walk by the picture of my finger every time I visited the TMC.

“One positive outcome of this accident was I gained a solid argument to convince my wife that wearing my ring at work was too dangerous.”

February 2018 KNOWLEDGE https://safety.army.mil
Motorcycling is a lifelong learning process. Far too often riders think after a few years and a few thousand miles that they know it all. That concept can be fatal.

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

Let’s take a look at this situation pragmatically. Assume you are a rider in the Southeast. The climate is warm and tires tend to adhere to surfaces much better than in other areas of the country. Because roads don’t freeze during the winter, their surfaces are also in better condition. Riders often get accustomed to a certain riding style after a few years, not realizing that may have to change at a new duty location. When those moves occur, they must understand how to ride in their new geographic location, not just fall back on what they’ve always done. However, getting adjusted requires both time and discipline on the rider’s behalf. That discipline includes learning
to read road surfaces, as they may be constantly changing. While some surfaces — such as crowned roads — remain relatively similar throughout the country, the degree of crown may vary at different locations. Motorcycles tend to drift away from the direction of the crown. This condition is the same with an automobile, but is much more pronounced with a motorcycle. Two-lane highways are crowned to the centerline, while four-lane highways are crowned to the median. Sport bikes are affected by road crowns more than standard motorcycles or cruisers, so changing motorcycles or riding a borrowed bike can be a recipe for disaster.

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

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

While riders may be fully capable of negotiating road conditions in the area where they are accustomed to riding, a PCS changes the dynamics of these surfaces. Changing to a different type motorcycle or a more powerful version all contribute to the way a rider needs to read and react to road surfaces. Staying aware of the changing road conditions and showing the discipline to adjust to them is fundamental to safe riding.
With traumatic injuries, such as those seen in combat or vehicle accidents, it’s hard to know which injured Soldier needs care first. Sometimes, however, the Soldier that looks OK is the one who’s in most desperate need of help. Although the situation below didn’t occur in combat, it happened on duty and under circumstances similar to many accidents in theater — a vehicle rolled over while the driver was speeding. Read on for the lessons this Soldier learned the hard way.

It was a cold, windy day with blinding snow as we drove downrange on an ammunition training mission. Everything was running smoothly, and the weather was actually normal for that time of year in Alaska. Unfortunately, things were about to take a tragic turn.

As my partner and I were rounding a curve on a steep grade, we noticed a vehicle from another company had overturned. We saw that two young Soldiers — the vehicle's only occupants — had been thrown clear of the vehicle, which was starting to burn. One of the Soldiers was trying to help the other, who was bleeding badly and screaming in obvious pain. I covered and dressed that Soldier’s injuries as best I could.

The other Soldier did not appear to be as seriously injured and was walking and talking clearly. But there were two things about him I will never forget. He had several deep cuts, but they weren’t bleeding badly. Also, his eyes were big, black and vacant. But since he was walking and talking, I didn’t think he was hurt badly.

Our radio wasn’t working well enough to give emergency personnel our location, so we loaded the men into our vehicle and headed for the emergency room. Both men were placed on gurneys and rushed inside. The doctor treated the screaming and bloody Soldier first. The other Soldier was told to wait.

My partner and I went back to work. Later that day we returned to the emergency room to check on the men. We were shocked to learn the Soldier who hadn’t appeared badly injured died while waiting for
treatment. The other Soldier was doing well in the recovery room.

I was crushed. What did I do wrong? What happened? I knew that man — we weren’t great friends, but he was a fellow Soldier. One of the nurses took me aside and explained what had happened. Apparently, the Soldier died from internal bleeding, trauma and shock. If the doctors had known he wasn’t bleeding from his wounds, they would’ve treated him differently. I told the nurse I knew he wasn’t bleeding, but I didn’t think it indicated anything serious. A man died because I didn’t know what to tell them.

I was a young, impressionable buck sergeant then. In the 30 years after that accident, I never failed to share this story with my Soldiers, hoping they wouldn’t repeat my mistake. Many of you are in combat now and will see things even worse than I did that cold winter day. Learn the signs of shock and basic first aid for combat injuries. Take care of yourself and your fellow Soldiers, and remember that sometimes things are worse — much worse — than they appear.

“I WAS CRUSHED. WHAT DID I DO WRONG? WHAT HAPPENED?”
I was properly briefed and approved for my single-ship mission and was performing a brief with my crew. Before proceeding to the aircraft, I was informed 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 and the requirements for the air mission commander. 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

I was stationed at Hunter Army Airfield, Georgia, 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 of day flight with one pilot, and two hours with night vision goggles with the other.

IS EVERYONE ON THE SAME PAGE?

CHIEF WARRANT OFFICER 2 MATTHEW D. RUSSELL
159th Combat Aviation Brigade
Fort Campbell, Kentucky
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, an almost 90 degree left-hand bend in a dirt road with no identifiable terrain features, just east of Red Route. 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 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 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 backyards. 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.

“I WASN’T PREPARED WHEN MY PILOT SUDDENLY TURNED AGGRESSIVELY TO THE LEFT, BANKING MORE THAN 45 DEGREES AT 100 KNOTS INDICATED AIRSPEED.”

My biggest 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 to not be the next entry in the statistics column. Complacency doesn’t always result in a lesson learned you can talk about later. Sometimes it results in a catastrophe.
While stationed in the Southwest as an explosive ordnance disposal specialist, one of our unit’s missions was to clear Air Force aerial bombing and gunnery ranges of unexploded and practice ordnance. Practice ordnance, while sounding innocuous, contains explosive charges to produce a white marking smoke and can, depending on the particular round, have explosive charges that are equivalent to 5 pounds or more of high explosives.

Our mission was to conduct a five-year clearance of an aerial bombing and gunnery range located north of the base. This would require additional temporary manning support. The mission would last a month and involve a border-to-border clearance. Many support issues needed resolution for the mission to be successful, not the least of which was how to conduct a clearance on a very busy range used by active-duty, Army Reserve and National Guard forces. Previous attempts to clear this range had failed due to mission requirements, and the clearance was rescheduled several times. Therefore, sorely needed range maintenance had been allowed to slide. Sound familiar?

To address the maintenance issues, we coordinated with range maintenance personnel. We cleared critical target areas first, allowing personnel on the range to repair and build targets in these spaces while we conducted clearance operations in other sections of the range. Due to terrain features (deep canyons, ravines, mountains) and the size of the range, we believed this option offered the most safety for personnel while allowing us to accomplish necessary maintenance actions.
Good radio communications were a key element of this operation; personnel were required to be under cover when disposal detonations were executed. A range control section attached to White Sands Missile Range controlled access to the range. We were clearing, which was about 60 miles from the base. WSMR conducted radar surveillance of the airspace and cleared aircraft onto and off the range.

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

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

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

The route we took to exit the range for our billets meandered through the airfield target complex. As we were about halfway through, our vehicles were buzzed by a flight of four F-15s. We attempted to contact range control, but communication on the FM radio was intermittent. In addition, the phone number that we were to use, when dialed on the radiotelephone, did not go through. The aircraft flew out of sight and we decided to exit the complex back to the base camp. As we turned our vehicles around, we heard a detonation on the far side of the complex and saw an aircraft pulling out of its bombing run. We immediately popped red smoke and abandoned the vehicles, seeking cover. The second aircraft, which was on approach, saw either the red smoke (or one of his wing mates did) because he aborted his run and initiated an emergency climb. They reassembled formation and did a flyover of our position. We again popped red smoke and used our signaling mirrors. They departed the range and we evacuated back to our base camp. We were able to contact range control from that location and found out that when the shift changed, the oncoming technician was not briefed properly.

When we confirmed maintenance was complete, range control assumed all personnel had left and cleared the flight of F-15s onto the range.

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

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

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

When all else fails, make sure you have a backup plan in place.
It was dusk when I faced a decision: Should I ride my motorcycle that evening or leave it behind and return for it over the weekend? The motorcycle was the last thing I’d need to move and I really didn’t want to leave it, so I decided to ride it. In retrospect, that was the wrong move.

The weather that evening was clear with temperatures in the low 40s. I had all of my safety attire, including a helmet, jacket, gloves, jeans and riding boots. While my gloves were warm, they weren’t wind resistant, and I wasn’t wearing a thermal layer to protect my legs from the wind. But this was only a 23-mile trip, and I would be riding on state and country roads at no more than 55 mph. How difficult could it be? With my wife and daughter following, each in separate vehicles, I led our convoy out of our old neighborhood and onto the route that would take us to our new home.

At mile nine, more than a third of the way to our destination, we reached an intersection that had a gas station. It would have made for a good warm-up spot; but with darkness upon us and the temperatures falling, I decided to press on. I wanted to get this bike home before it got much colder.

We’d made it several miles past gas station when I noticed my hands were really cold. By now, however, we were on a stretch of road without any public places to pull off and get warm. If I needed to stop, I’d have to tough it out for eight more miles. A few more miles up the road, though, I began shivering and losing feeling in my hands, legs and feet. Still, I kept on. Then a wave of dizziness washed over me.

Up ahead I noticed a traffic light. I found myself hoping the light will turn red so I could put my feet on the ground and catch a little warmth from the motorcycle’s engine. But with darkness upon us and the weather cooling, I decided to ride it. In retrospect, that was the wrong move.

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Up ahead I noticed a traffic light. I found myself hoping the light will turn red so I could put my feet on the ground and catch a little warmth from the motorcycle’s engine. But as I neared the light, it turned green, so I continued riding.

When I crossed under that stop light, I realized I was in bad shape. My shivering has turned to shaking and the dizziness is unbearable. I knew I was going to have to stop. But where? Ahead, just a tenth of a mile, was another traffic light. “Will it turn red?” I asked myself. “Will it allow me a little reprieve?” As I approached, it did turn red! I slowed, came to a stop and place my feet on the ground.

The intersection wasn’t busy. The light had changed to allow a car coming from a parking lot to enter onto the main road. Waiting for the light to turn green, I took note of my condition. I was in rough shape, so decided this is where I’d have to stop. If I didn’t, I may crash.

So, while still astride the bike, I pushed off onto the road shoulder. My wife and daughter followed suit.

When my wife arrived by my side, she asked if I was all right. I told her my symptoms. She offered to finish the ride for me but I declined. She then suggested I get in her car to warm up for a while. I agreed and started to dismount my bike.

With my dizziness and cold shakes, I focused all my effort to get the motorcycle kickstand into position. I managed to move it downward, but was having trouble getting it fully extended due to road’s unevenness. I knew leaning the bike in the opposite direction of the kickstand would remedy the clearance issue I was having.

After several more unsuccessful attempts, I uprighted the bike and tried to find a better spot of asphalt to get down my kickstand. But as I leaned forward to start my push, I began to fall. My wife, still standing next to me, noticed I was crumpling like a rag doll and went into action. She grabbed my coat and tried to hold me up, but I went to the ground with my bike.

I stirred as my helmet hit the ground. I heard my wife yelling orders at my daughter to call 911. I started to move and noticed my shoe was pinned under the bike. I informed my wife and she helped pull me free. Despite my wife’s protests, I tried to stand but soon thought better of it.

Paramedics arrived shortly afterward and examined me on the side of the road before loading me into the ambulance. Due to my involuntary shaking and slowed blood movement, however, they weren’t able to get any medical test taken prior to arrival at the hospital. It would take several warming blankets and a few hours at the hospital before the doctors released me. They determined I’d been on the verge of hypothermia due to a lack of nutrition (I hadn’t eaten all day), the cold temperature and my lack of warm clothing.

There’s a good reason veteran cold-weather riders wear multiple layers of clothing, leather outerwear and even electrically heated riding suits to help insulate them from frigid temperatures. The combination keeps you warm and protected from the elements, creating a more enjoyable riding experience. Also, most heat loss occurs at the extremities, especially your head, so a full-face helmet will keep you warmer and less susceptible to wind chill.

I failed to properly prepare to a ride in cold temperatures. It’s was experience I don’t want to repeat again. Ride safe!
WINTER RIDING TIPS

Depending on where you live, the winter months can range from a minor drop in daytime highs to five feet of snow and temperatures in the single digits. As a result, preparing to ride a motorcycle during the winter can be as simple as throwing on an extra base layer of clothing or as difficult as negotiating ice on the roadway. Here are some tips to help keep you safe while riding during the winter season.

Your body
There’s a good reason veteran cold-weather riders wear multiple layers of clothing, leather outerwear and even electrically heated riding suits to help insulate them against the cold. The combination keeps you warm and protected from the elements, creating a more enjoyable riding experience. Also, most heat loss occurs at the extremities, especially your head, so a full-face helmet will keep you warmer and less susceptible to wind chill.

Your bike
- A windshield will greatly reduce wind chill, keeping you warmer and more comfortable.
- It’s critical to check your tire pressure before each ride during the colder months, as tires can lose upward of 5 psi every day.
- Cold-weather riding puts even more strain on the battery. Use a battery charger to keep it properly charged.
- Use the appropriate weight engine oil for the temperature range you will be operating your motorcycle.
- In extremely cold weather, it can take up to 15-20 minutes of riding before your tires reach their ideal operating temperature.

Your ride
- Winter riding usually means ever-changing road conditions and hazards, including ice, salt, gravel, wet leaves and pressure ridges. Maintain vigilance and adjust your speeds accordingly.
- Wet leaves are as slippery as an oil slick and just as dangerous. Be aware that moisture trapped under seemingly dry leaves can freeze, creating a hazard in your path.
- When you encounter areas of reduced traction, decrease your speed and lean angle while maintaining equal braking pressure between the front and rear brakes.
- Certain species of trees will release sap during the winter that can form a slippery film when combined with rain.
- Ice can be the single most treacherous aspect of winter riding and often lies in wait in low or shaded areas, bridges and overpasses.
- Your tires make almost no sound when they are running on the ice. If you notice your tires suddenly get quieter on that back country road, take heed. You might be on ice.

For some of us, the riding season doesn’t end when winter begins. If you plan to ride this winter, keep the tips above in mind. Riding smart will help ensure you’re around to enjoy all of the seasons.
Professional courtesy can be defined as the courtesy given to senior-ranking officers or more experienced Soldiers. Unfortunately, it can also become a danger to a flight crew when inexperienced Soldiers are reluctant to announce hazards or lack the willingness to speak up and do what they know is right.

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

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

The day started out like any other in Iraq. Our crew was pretty much a company internal crew, except for the PC of my aircraft, who we will call Capt. X to protect his identity. Capt. X was supplementing our company because our mission load was too heavy for the small number of PCs we had. Having supplemental PCs was standard, so I thought nothing of it. The mission was to take us from Balad to a small forward operating base in northern Iraq, with a refuel stop in Kirkuk. Sounds simple enough, right?

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

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

The trouble started when we flew into Kirkuk for refuel. After realizing Capt. X was oblivious to the airfield layout, I took the reins and guided us into the FARP. Capt. X had obviously not looked over the airfield procedures for Kirkuk — or even the airfield diagram for that matter. One small hiccup! That’s OK; brush it off and move on with our day.
“MORTIFIED AND EMBARRASSED, I KNEW MY SP WAS SITTING IN THE TRAIL AIRCRAFT WATCHING THE ENTIRE SITUATION UNFOLD.”

I explained to him in a tactful manner, “Sir, we are not supposed to overfly the barrier and I am pretty sure that is not a taxiway.” “No, we are going to fly over the barrier and land on the taxiway, just as I briefed,” he said.

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

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

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

After a long, convoluted flight and a two-hour after-action report, I learned a few lifelong lessons. Always do what you know is right. And do whatever you need to do to maintain the safety of your crew and passengers … even if you have to throw the professional courtesy out the window.
In the quest to be the best-trained, best-equipped military in the world, Soldiers and equipment are pushed to the limit during grueling exercises and operations. We cannot forget, however, that we must always consider and integrate safety into any activity, both on and off duty.

Unfortunately, Soldiers can feel intimidated by the need to complete the mission. The source of the pressure may be personal desires or by order of a superior. Military professionals must be able to express their concerns in an appropriate manner, especially when conditions may result in unsafe operations. I personally experienced such a situation as a young sergeant during an annual training exercise for the Ohio Army National Guard.

Camp Grayling, Michigan, was a popular training site for Guard commands of neighboring states. It has a well-developed cantonment area, coupled with realistic terrain in the field training sites. Soldiers earned driving hours during the trip from home station, and the available facilities made the relatively short stays fairly comfortable. However, training requirements sometimes dictated that Soldiers be shuttled between the field sites and the cantonment area to facilitate classroom instruction for certain required sessions.

For units with limited access to vehicles, Soldier transport had to be coordinated with other support units. My unit was camped in our designated field-training site. Many of us were required to complete certain briefings prior to the end of AT. I have to admit, I don’t even remember what the training was, but considering it was not associated with a mobilization, I can infer that it was a routine, annual requirement.

One day, we were alerted about 6 p.m. that a vehicle was on its way to return us to the cantonment area. Those affected needed to bring the necessities for an overnight stay and wait for the vehicle to arrive. After waiting for an hour or so, another noncommissioned officer asked our first sergeant if there was a change in plan. He was advised to remain ready to leave, as he really didn’t know why the vehicle was late or when it would arrive. So, we continued to wait.

As darkness arrived, we remained in the pickup area with our gear. A couple of times, our first sergeant came out to tell us that someone had radioed him that the vehicle was on the way. Again, we waited as instructed. Some Soldiers expressed a desire to return to the tents for a nap until the vehicle arrived, but they were warned to not leave the area because of the risk of missing the movement. And sleeping in the waiting area was deemed unsafe due to the potential for drivers not being able to see us in the dark.

About 2:30 a.m. — 8½ hours after we were first notified to be ready for transport — our battalion commander and sergeant major arrived in a truck. Evidently, they’d been advised we were still awaiting movement and our training was scheduled to begin at 7 a.m. Upon their arrival, we immediately began climbing into the cargo area of the truck with our personal gear.

In the flurry of activity, the sergeant major asked me, “Where are your drivers?” As the company safety NCO, I explained to him we had all been awake since 5 a.m. the previous morning and none of us were rested enough to safely drive the distance back to the cantonment area, which included passing through a busy area in a local town. The sergeant major was insistent one of our Soldiers drive. I was convinced, however, one of our Soldiers would likely fall asleep at the wheel and cause an accident with a cargo bed full of his peers.
I decided to word the situation in the plainest terms I could think of: “Sergeant major, we can put one of our Soldiers behind that wheel and instruct them to drive through town. And likely it would be you or the colonel who would have to explain why he crashed into a storefront or another vehicle should something happen.” He looked at me and started to respond; but after considering my hypothetical scenario, he told me to finish getting our Soldiers in the truck. The sergeant major ended up driving.

Can I say I avoided an accident that night? Of course not, but I am proud to know I will never have to regret staying silent when someone needed to say something. Since that early morning, I have earned a commission in the National Guard and now serve as an additional duty safety officer for my brigade headquarters. As the years pass, I will never forget that night when I stood up for my peers and myself. Speaking up for safety might just save a life.

“SOME SOLDIERS EXPRESSED A DESIRE TO RETURN TO THE TENTS FOR A NAP UNTIL THE VEHICLE ARRIVED, BUT THEY WERE WARNED TO NOT LEAVE THE AREA BECAUSE OF THE RISK OF MISSING THE MOVEMENT.”
I grew up poor, so most of the vehicles my family owned were small and only seated up to four passengers. Some might not see that as a problem, but for our family of seven, it was always an issue. It wasn’t uncommon for all of us to cram into the car for a trip to the store. And since we were packed in so tightly, we never wore our seat belts. Therefore, I always thought it was normal to not wear one.
This way of thinking held true until October 1993. I was a junior in high school and in the process of joining the Marine Corps. My family and I had just returned from a vacation to Mexico, and the following day was the last of the school year. The next morning, my mother said I could stay home since we were all still so tired from our drive back from Mexico. However, I told her I felt fine and went on to school.

A Marine Corps recruiter picked me up from school that afternoon so I could take care of some traffic tickets. Once we were finished at the county clerk’s office, we started making our way back to my house. A few miles from our exit, traffic began to back up on the interstate and state troopers were diverting vehicles onto a feeder road. I didn’t think much of it, and the recruiter and I started talking about what kind of accident could be causing the tie-up. As we neared the accident scene, I saw my sister’s damaged truck on the side of the road. I told the recruiter to stop, jumped out of his car and ran to the truck. The ambulances had already left the scene by this time, so I didn’t know who had been in the truck. I eventually found my sister crying on the side of the road and asked her what had happened. All I could understand her saying was “Mom!” I was confused and not sure what was happening. A state trooper asked me to go get my father, so I left to find him. I returned to the scene only to discover my dad was already there. I ran to him and asked where my mom was, but he didn’t answer. As I glanced back toward my sister’s truck, I could see there was a sheet covering a body on the interstate. I wanted to know who was under that sheet. My dad then confirmed my worst fear, telling me that my mom was no longer with us.

My sister drove a 1980’s model Chevrolet Silverado that only seated three passengers. I later found out that my 4-year-old brother, 8-year-old sister, 2-year-old nephew and my mother had all been riding with my sister. None of the younger kids was in a car seat and no one was wearing a seat belt. When my sister lost control of the truck, my mom was ejected and landed on the interstate.

To lose a loved one always hurts. But to lose the person who gave birth to you and did everything in their power to ensure you were always taken care of hurts the most. Since that day, I have always worn my seat belt and make sure anyone riding with me does the same. Seat belts save lives … but they only work if you wear them.

Seat belts are the single most effective traffic safety device for preventing death and injury. According to the National Highway Traffic Safety Administration:

- Seat belts saved an estimated 13,941 lives in 2015 and could have saved an additional 2,814 people had they buckled up.
- Of the passenger vehicle occupants killed in 2015, 48 percent were unrestrained.
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 with. 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 that 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 conditions there. They reported the weather 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.”

CHIEF WARRANT OFFICER 3 MARK SKALA
777 Special Mission Wing Special Operations Advisory Group

February 2018
https://safety.army.mil
“WE HEADED BACK AND, AS WE FLEW OVER THE LAST MOUNTAIN PASS 12 MILES NORTH OF SHINDAND, IT HAPPENED. IT WAS SNOWING! ”

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 have 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. ■
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FROM THE COVER

SPRING FEVER

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Mission Statement:
The Army Safety Team provides the Army with safety and risk management expertise to preserve readiness through the prevention of accidental loss of our Soldiers, Civilians, Families and vital resources.

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

First, listen to your MOM. We’re not talking about that sweet lady that cooks Sunday dinner and tells you to pack a sweater in 90-degree weather. Instead, we’re referring to your motorcycle owner’s manual. If you put your bike into hibernation the way your MOM told you to, just follow its instructions to get your scoot back on the road. You’ll have your work cut out for you, though, if you just parked that baby in the corner of your garage or shed.

For those of you that followed the MOM, your prep time will be relatively short. Pull off the cover, fill up the gas tank, change the oil and check the tires for correct pressures and signs of dry rot. Remove any plugs you installed to keep the critters out of your exhaust, carburetor and air filter intake and then connect the battery following the MOM’s procedures. If you didn’t put your battery on a trickle charger, you might have problems getting the bike fired up. But between your MOM and T-CLOCS, your pre-ride inspection should cover everything.

Although your bike might be road ready now, you have to check your personal protective equipment to make sure it still fits and is in serviceable condition. Those extra pounds you put on over the holidays might mean a trip to the bike shop to buy a new jacket or leather chaps. This is also the time to make sure your bike is licensed and insured properly. Some of you might have deregistered your motorcycle during the winter to place it on your homeowners insurance. If so, you’ll have to go through the registration and insurance processes again. Do it early so you can get on the road as soon as the weather breaks.

Next, you need to get yourself ready for the road. Your first trip shouldn’t be from Fort Riley to...
Daytona for bike week. Ease back into shape and knock off the rust by practicing your riding skills. You might need a refresher course if it’s been longer than a few months since your last ride, so contact your local safety office to schedule an experienced rider’s course.

Lane position is important when you’re on the road. Always position yourself in the lane of travel so you can be seen at the greatest distance possible. You’ll also need to be more diligent with your scanning technique and pay particular attention to the road surface so you can spot any cracks or potholes that developed over the winter. Those of you stationed in colder climates know what I’m talking about — the pothole that bottoms out your suspension, rattles your eyeteeth and leaves you wondering if you bent your rims.

If your unit or installation has a Motorcycle Mentorship Program, call them up and join the group. The MMP is a great way to meet people that share the same passion for riding, and you also can enjoy group rides and activities. If your installation doesn’t have an MMP, contact your safety office to check on starting one.

Local MMPs increase the general public’s awareness of motorcyclists by putting groups of Army riders — whether they’re active duty, retired or DOD civilians — together on the road. Therefore, it’s important to remember some folks still think motorcyclists are over-the-edge people that don’t abide by the norms of society. We all know this isn’t true and applies to only a very small percentage of the riding population, but be aware that someone is always watching. Your conduct can help elevate riding to a respectable and acceptable form of recreation, so save the wheelies for a sanctioned event.

Whether you’re a hardcore or fair-weather rider, machine, mind and body have to be firing on all cylinders to ensure a safe and enjoyable riding season. Warm weather will come and go, so enjoy it while it’s here. Live to ride and ride safe!
Spring is just weeks away, and as the weather gets warmer, most training activities will move outdoors. Numerous hazards are associated with outdoor training during the spring and summer months, most notably heat illnesses. Sometimes, however, Soldiers fall victim to a dangerous phenomenon of nature that is just as lethal as heatstroke but much less predictable.

“ALTHOUGH EACH OF THE U.S. ARMED FORCES USUALLY REPORTS SOME PERSONNEL- OR EQUIPMENT-RELATED LIGHTNING STRIKES EACH YEAR, THE ARMY HAS THE HIGHEST CASUALTY RATE.”
According to the National Weather Service, an average of 270 people are struck by lightning annually in the United States. More than 30 of those strike victims die, and many others are seriously injured. July has proven to be the deadliest month for lightning strikes, with an average of 10 fatalities per year. Although each of the U.S. armed forces usually reports some personnel- or equipment-related lightning strikes each year, the Army has the highest casualty rate.

Military personnel are at risk for lightning injury and death due to the nature of their training and operational activities. Many of these activities take place outdoors in all types of weather and within lightning-prone areas such as the southern U.S. Infantry and artillery Soldiers are at higher risk than other specialties because of the outdoor nature of their training and operations.

Lightning-related incidents reported in the Army often involve a single strike that causes multiple personnel injuries. This is because exercises and operations frequently involve groups of Soldiers working as teams, and these clusters form a larger target. Examples of incidents where multiple injuries might result include lightning striking metal or wet equipment, flash lightning exploding from a target or lightning currents traveling along the ground.

Here are a couple of examples to illustrate this phenomenon: At Fort Irwin, California, three Soldiers were struck by lightning on a hilltop. Several years before that incident, eight Soldiers were injured at Camp Grayling, Michigan, when lightning struck some trees 50 feet away. The Soldiers had sought shelter under a tarp when the thunderstorm appeared and were hit when the lightning current traveled at ground level to their location.

There's no single action that eliminates the risk of lightning, but you can reduce your probability of being struck by following a few simple rules. For instance, avoid high-elevation areas, open fields, isolated trees, communication towers, flagpoles, open-top vehicles and water during thunderstorms. It doesn't matter if the storm appears to be far away. Thunder signals approaching lightning, and you should take cover as quickly as possible.

If a thunderstorm approaches and a building or closed-top vehicle isn't available, seek shelter under the smallest tree in a group of several large trees, but never under a single tree. Stay at least six feet away from the trunk to minimize the risk of a side strike. If you're caught in an open area without trees or other shelter, assume the lightning safety position: crouch with your feet as close together as possible with the heels together, and place your hands over your ears. Do not lie flat on the ground!

If you're training or operating in the open and see lightning or hear thunder, use the “30/30 rule” to determine when to seek shelter. When you see lightning, count the seconds between the flash and thunderclap. If it's 30 seconds or less, seek shelter immediately. Then, wait at least 30 minutes after the last thunderclap before leaving your shelter. Don't be fooled by a blue sky, either. Lightning injuries can occur very early or late in a storm's life, and strikes have been recorded from as far away as 56 nautical miles.

Leaders play a vital role in preventing lightning casualties among their Soldiers. During outdoor training missions, they should designate a guard to alert personnel of impending bad weather. Leaders also must decide beforehand when to modify or suspend outdoor training and where to seek shelter in the event of thunderstorm activity.

No one can control the weather, but you can control your risk of becoming a lightning casualty. Spring and summer thunderstorms are just around the corner, so be prepared when lightning strikes.
When I was coming up through the ranks as a young mechanic, I learned a valuable lesson from the officer in charge of a direct-support maintenance shop. One day, I approached this crafty senior warrant officer to discuss coming to work for him. As he listened to me, he casually pulled out his handkerchief, removed his glasses and unexpectedly popped out his glass eye into a white handkerchief and began to clean it. Needless to say, I was speechless and just stared with my mouth hanging open. After he finished cleaning his eye, he put it back into the empty socket, replaced his glasses and said, “I’ll see what I can do.”

It took a month before I finally got the courage to ask Chief how he lost his eye. He told me it happened when he doing hands-on training during his Warrant Officer Advanced Course. One day, as he left the work area to get a cup of coffee, he lifted his goggles up onto his forehead. At the same time, a sledgehammer that another student was using shattered into pieces. As Chief walked out of the area, a shard from the hammer flew across the room and struck him in the eye, slicing it open. His tragic story forever changed my perspective on eye protection and taught me a very valuable lesson: Keep your eyewear on at all times whenever you’re in a work area.

Data collected by the Program Manager Soldier indicates that eye injuries account for 10 percent of all Soldier injuries. Soldiers and civilians working in maintenance areas should be using some form of eye protection whenever they are in their shops and respective work areas.

In our motor parks and maintenance bays, eye injuries predominantly occur during battery maintenance, welding or grinding operations, or from metal fragments created by activities such as hammering or using bolt cutters. In more than one-third of the reported eye injuries, the individual was either not wearing the required protective eyewear or was wearing it improperly. Hazards from dust and debris, flying objects or particles that can strike you in the face or eyes can be easily defended by using the proper safety glasses and goggles.

Various activities require different types of glasses or
goggles. So what is the right protection and when should certain types be worn? Well, for starters, safety goggles are an appropriate substitution for safety glasses and can provide better overall protection. However, safety glasses are not an appropriate substitute for safety goggles. Here’s why: Safety glasses are effective for deflecting a direct impact from flying objects such as nails, metal shards, etc. Goggles give added protection against dust and fine particles, splashing liquids and high-wind/gusting conditions.

No matter how routine the task or how low the risk, wearing the right eye protection for the job is the best defense against an accidental eye injury or loss. Whether in the motor pool or on a combat logistics patrol, protecting your eyes is as easy as it is smart.

**DID YOU KNOW?**

The main difference between safety glasses and regular glasses is their resistance to impact. The American National Standards Institute, which sets standards for safety glasses, requires them to withstand the impact of a quarter-inch steel ball traveling 150 feet per second. You can’t depend on prescription glasses for that kind of protection. Frames stamped with the imprint “Z87” meet stringent standards for strength and heat resistance. Program Executive Office Soldier has an approved list of eye protection for Soldier use at http://www.peosoldier.army.mil/equipment/eyewear/.

**EVEN IF YOU USE A FACE SHIELD IN OPERATIONS SUCH AS GRINDING, YOU ALSO STILL NEED TO WEAR SAFETY GLASSES UNDER THE SHIELD.**
t was May 16, 2006 — a day in Iraq I’ll never forget. I was the pilot in command in the lead aircraft on the downed aircraft recovery team. The day started out as a normal standby day. We pre-flighted the aircraft, and afterward I conducted a thorough crew brief.

Following my brief, I returned to my room to catch a movie. A few hours later, I got a knock on my door and was told we had a mission and to report to the tactical operation center. My pilot for the mission was my roommate, so I didn’t have to go far to instruct him to find the crew chiefs and meet me at the TOC.

I met the PC of the second aircraft at the TOC and reported to the battle captain to discuss the details of our mission. He told us an aircraft was down in Q-West due to tail rotor problems. After our PIs entered the TOC, we got our S-2 brief, maps and route of flight. We then sent our PIs to assemble the DART team and had them meet us at the aircraft. Both flight crews checked the weather and exchanged information for the flight to Q-West.

At the aircraft, I had another crew brief. I updated my crew and the DART team on mission details. We checked the weather, frequencies and route of flight. We then strapped in and took off as a flight of two. I was the lead aircraft to Q-West, and the flight went off without any issues.

After landing at Q-West, the maintenance test pilot examined the broken aircraft. The crew with the broken aircraft swapped aircraft with Chalk 2 of the flight and took off to continue their mission. The MTP diagnosed the problem and fixed the aircraft. He then took a test flight around the traffic pattern. The test flight was successful and we continued as briefed.

In the meantime, my PI and I walked over to operations to check on weather and get approval from our TOC for the flight back. The weather report showed some thunderstorms to the south, and our battalion commander changed up the crews. My crew consisted of a senior PI with more than 200 hours in Iraq; I had more than 600 hours in country. Chalk 2 consisted of a new lieutenant and an MTP who did not have a lot of time outside the traffic pattern of Forward Operating Base Speicher. It was a good crew change due to the situation we were about to face. The battalion commander directed I take Chalk 2 to keep an eye on the tail rotor of Chalk 1. We conducted another crew brief because of the crew change and, based on my having the most experience, I took the DART team and passengers.

The thunderstorms were approaching Q-West from the south quicker than expected, so we took off without delay. After we cleared Q-West airspace, the thunderstorm was over Q-West. We responded to Q-West tower and cleared their airspace. We soon noticed some thunderstorms developing on our route of flight. After having a brief discussion with Chalk 1, we agreed I would take the lead.

I passed Chalk 1 off the right side since I was on the controls in the left seat. We changed our route and crossed the Tigris River. The reason for the flight change was to give us a recovery base should the weather toward FOB Speicher go below visual flight rules minimums. After crossing one of the ridges, we noticed the weather toward Kirkuk had deteriorated, so we weren’t able to recover there as planned. We were being funneled in one direction and that was toward Speicher. After many talks with Chalk 2, we knew we had only one way to go.

CHIEF WARRANT OFFICER 3 WILLIAM H. MURRAY
12th Aviation Battalion
Davison Army Airfield
Fort Belvoir, Virginia

March 2018
KNOWLEDGE
https://safety.army.mil
We turned our aircraft toward Speicher. We were still on the north side of the Tigris, so we had one more ridge to cross. Just when I thought the weather couldn’t get any worse, dust storms appeared on our right and left. I saw our path narrowing. This was unbelievable! It was not a good situation.

I asked my crew chiefs if I was clear left. My left crew chief responded that I was not. I then asked if I was clear right. My right crew chief said I was not clear right. I was a little confused and asked them to clarify why I could not turn left or right. That’s when they informed me the dust storms had merged behind us.

I radioed Chalk 2 and asked if they had their instrument approach card to Speicher. They came back with a “yes.” I had hoped not to use it; nevertheless, we conducted the inadvertent instrument meteorological conditions brief over the radio. Both chalks knew the corresponding altitude and frequencies if the weather worsened.

Thinking ahead, I knew the air would be a concern when crossing over the other ridgeline. As we got closer to the ridgeline, I started to climb. I didn’t want to start too early because I didn’t want to go IMC.

As we got closer to the ridgeline, the downdraft got stronger. I was in a 5 to 7 degree nose-up attitude and pulling close to 100 percent torque. The dust storm quickly converged in front of us. Once we topped the ridge, I radioed Speicher tower about the weather. Speicher quickly came back with, “We were IMC, but now we’re VFR.” That was finally some good news.

The bad weather was unyielding and we slowed down to about 80 knots to keep the ground in sight. We continued the rest of the flight off of visual cues. A normally 45-minute flight had taken us well over an hour. I had my PI perform several fuel consumption checks because we needed to know exactly how much time we had.

Our aircrews carefully synchronized the next 30 minutes, using excellent aircrew coordination skills. After looking at the global positioning system, we realized we were approaching the 10-nautical-mile ring of Speicher. I radioed Speicher tower, reported my location and requested to land. We landed at our parking spot and my passengers quickly got out of the aircraft and kissed the ground. I heard a lot of thank-yous.

All of our training came to reality in one flight. The weather never got any better that day and I was doing all I could to keep my UH-60L in the air. We had lightning strikes all around us and we were tossed around like a rock in a soda can.

The crew coordination in my aircraft and with Chalk 2 was amazing and the key to completing the mission without incident. Both crews relied on their training. That training kept a bad situation from getting worse.

The moral of the story is keep your cool and rely on your training. You never know when it might one day save your life.
Never have I experienced anything as frightening as being a heat casualty. I will always remember the way my body felt and the emotions that were running through my mind when I succumbed to heat exhaustion and dehydration. Paralyzed from my waist down, unable to move my arms below my elbows and eventually losing control of my bodily functions, my life flashed before my eyes. I thought about how selfish I had been to leave my children and spouse again for something I wanted to do, knowing they would rather I be at home. To this day, I cannot help but replay the entire near-death scenario in my head.

I was attending a course I had anticipated for months — doing everything I could to ensure I met all of the requirements necessary to prevent being sent home. Unbeknownst to me, a five-mile ruck march would take place within the first 48 hours of boots on ground. I know what you are thinking — “It’s only 5 miles.” However, a ruck march in full battle rattle with a weapon and 45 pounds of gear is no easy feat, especially if you’re physically unprepared for the extra weight or not acclimated to the heat.

Maryland was experiencing a heatwave that summer with record high temperatures. In an effort to prevent heat casualties, the ruck march was scheduled for the evening, about 3.5 hours after dinner chow. My plan was to carry a piece of fruit with me just in case my body felt like it needed the extra fuel. Unfortunately, schoolhouse policy prohibited food outside of the dining facility.

Since my specialty is healthcare and safety, I mentioned to a cadre member the dangers of conducting the ruck march without providing the necessary fuel our bodies needed. He denied my request and said, “You will be fine. It’s only five miles and our pace is about 19 minutes a mile.” I knew at that moment I was in trouble because I was already exhausted from

DID YOU KNOW?
The U.S. Army Public Health Center provides heat illness information, along with numerous posters and other products, on its website at https://phc.amedd.army.mil/topics/discond/hipss/Pages/Heat-Related-Illness-Prevention.aspx.
FYI

Heat casualties represent a serious threat to the medical readiness and fitness of military personnel, both in garrison and during deployments. Each year, the Army records hundreds of cases of heat-related illnesses, including some that take the lives of Soldiers. These injuries often result from individual physical training, PT testing, training exercises and other activities, including those recreational in nature. Leaders must be held accountable for their Soldiers’ training and actions. They should incorporate risk management into every training event and account for the worst-case scenario of Soldiers not drinking water. Some trainees don’t know when to refill their canteens, some are unable to find water points during land navigation events and some are forced to either get water or “gut it out” to the next event. All of these issues happened in recent years. In the units involved, the needed policies and command involvement were nonexistent. This needs to improve. Additionally, all cases of heat illnesses must be reported to the U.S. Army Combat Readiness Center, as well as to the medical community. The more we know about these heat injuries, the better we can establish preventive guidance and training. As much as we know, and with all the information about heat illness prevention available to all Soldiers, we should be successful at reducing mishaps during the upcoming hot weather season. Whether at work or play in the heat, it’s important to reduce the risk of heat stress as much as possible and remain vigilant for signs that all is not well.

being run in to the dirt since arriving at the schoolhouse. The ruck march seemed to be going smoothly for the first three miles. I noticed our pace was a lot faster than was stated, but I felt great. About mile four, however, I started experiencing tingling and numbness in my feet. I pushed on and did everything I could to increase circulation to my lower extremities. Despite my efforts, the numbing and tingling sensations crept up my legs, to my knees and then my thighs. Eventually, I could not feel anything below my waist and fell backward. I am not sure how much time passed from the moment I hit the pavement until I was given the proper medical attention. By the time the medic gave me an IV and the fluids started flowing, my arms and hands were paralyzed and my blood pressure had bottomed out. I actually heard the medic say, “We’re losing her. We may want to send her to the hospital.” At that moment, I decided I was not giving up without a fight. Fortunately, I was able to pull through.

I occasionally think about what happened that day, attempting to identify my failures as well as those of the Regional Training Institute that was responsible for preparing me before I attended the school. I know the outcome would have been different had my leadership taken a proactive approach to identifying risks associated with the environment and the schoolhouse expectations to pass the course. Unfortunately, I became the victim of the ever-changing leadership and a lack of planning and communication between the RTI and the schoolhouse. The new leadership at the RTI took a reactive approach and implemented controls based on the failures of their predecessors.

My hope is no Soldier has to experience the anguish of becoming a heat casualty and leaders will identify all possible hazards weeks before an event. This incident has completely changed my outlook on life and amplifies the importance of risk management in keeping Soldiers safe.
Have you ever fought with your kids about wearing seat belts? Have you been tempted to give up out of frustration? A few years ago on a rain-slicked road, we learned this is a battle you can’t afford to lose. Here’s our story.

I’d been deployed about three weeks, but hadn’t talked to my wife during the past few days. When I finally got in touch with her, I’ll never forget the sound of her voice. I knew something was wrong when she said, “Hey, honey, let me just say we are all OK.” Hearing her say that, however, didn’t make the message any easier as she explained what happened.

My wife and kids were on their way from Fort Hood, Texas, to Austin for my son’s soccer tournament. My wife was driving and my 10- and 2-year-old sons were in the backseat. During their drive, they encountered a bad thunderstorm. A few minutes into the storm, they hit a flooded section of road and my wife lost control of the SUV, which slid onto the grass on the right shoulder. She was able to regain control, slow down and attempt to ease back onto the road. However, the right-rear tire hit the road edge and blew out, sending the SUV sliding sideways and overturning three or four times before it came to rest upside down in the grass.

My wife didn’t realize she was hurt and checked on the boys, who appeared to be OK. Our 10-year-old had wanted to ride in the front seat, but, fortunately, my wife insisted he ride in the backseat. That proved to be a good decision, as the passenger-side mirror had
pivoted inward, smashing the window and gashing the front passenger seat. Had our son been there, he might have been decapitated.

She climbed out of her window and tried to open the back doors, but they were stuck. By now, people were already coming over to assist. My oldest had undone his seat belt and was brushing glass out of his brother’s hair. He tried, unsuccessfully, to get him out of his safety seat and wouldn’t leave the car without him. While all this was going on, my wife was in and out of consciousness. Her left arm was seriously injured and she was bleeding profusely from her head. She remembered asking to see our boys and a women telling her that they were doing fine. She’d been assuming the worst, but the fact was, the woman didn’t want the kids to see their mother in that condition.

My wife went on to explain that the kids had some minor injuries from the stroller and backpacks flying around inside the vehicle. My oldest son needed some dental work and my youngest had a large lump on his head. Considering that everything else in the SUV was spread across the highway, I was just happy to hear they were all alive.

As I listened to the story, I couldn’t help but wonder if I had done something to contribute to this accident. I asked myself, “Were the wipers OK? How old were the tires? When was the last time I checked the tire pressure?” I’d looked over the car shortly before deploying, but was concerned I might have missed something. For a long time I thought about how I’d have felt had any of them been killed. Those uneasy thoughts hung around in my mind, but I eventually accepted the fact that there was nothing I could do to change the past. Instead, I decided I would focus on how to do better in the future.

My wife and son had some difficulty dealing with the aftermath of the accident. Riding in a car during a bad storm was a little difficult for them at first, but they eventually got better. Looking back on it, we view the entire incident as a learning experience for us all. Obviously, we no longer have a seat belt issue. In fact, I’ve heard my son remind his friends to fasten their seat belts. I also explained to him that his concern for his brother in an emergency is a quality that many don’t possess, especially other children his age. After seeing the SUV’s condition, my wife was amazed they survived and felt she’d been given a new lease on life.

It was humbling to come home from combat to hear the details of my family’s near-death experience. It is a perfect example of how the most obvious hazards — such as those I faced in combat — are not always the ones that hurt or kill people. Since then, I’ve worked to make myself more aware of the potential hazards to my family. I’ve also tried to be better about explaining how and why I take certain safety precautions so my family will be even better prepared the next time I’m gone. When I deploy, I’m not just committed to protecting my comrades in combat; I’m just as committed to protecting my family at home.

“HE TRIED, UNSUCCESSFULLY, TO GET HIM OUT OF HIS SAFETY SEAT AND WOULDN’T LEAVE THE CAR WITHOUT HIM.”
My Scout Weapons Team was in Afghanistan supporting a convoy delivering supplies from north of Asadabad to Forward Operating Base Bostick in the Konar River valley. We'd finished refueling in Asadabad and were en route back to the convoy, which was about halfway to FOB Bostick, when Mad Dog 16 called for immediate air support for troops in contact. Mad Dog 16 was a security element posted along a road that was a known enemy hot spot. Their location was on the west side of the Konar River, which runs down the middle of the valley.
After conducting our fighter check, Mad Dog 16 reported they were in a two-way firefight. The enemy was using machine-gun fire from the rocks at the bottom of the hill on the east side of the river. Mad Dog’s convoy consisted of four Mine Resistant Ambush Protected vehicles, and all friendly elements were secure inside the vehicles. We immediately confirmed the convoy’s location and asked Mad Dog to mark the enemy location with a single .50-caliber tracer round because each vehicle gunner was firing at a different location on the hill. He responded, “Target marked with a 20-round burst.”

I was in the lead aircraft and identified the target. The air mission commander in the rear aircraft cleared a suppression mission on the enemy location. As lead, we rolled in for our first inbound run and engaged the enemy at about 1,500 meters and fired two high-explosive rockets and about 150 rounds of .50-caliber ammunition. We broke left off the engagement at about 800 meters, placing my trail aircraft in perfect position to fire just as we broke. As we broke left, Mad Dog told us the enemy fire had shifted from his position and he thought the fire had directed toward the aircraft. Seconds later, our trail ship called, “Taking fire … taking fire!”

Coming around, we barely picked him up as he broke. We called inbound to cover his break and fired our last five rockets at the enemy as fast as we could. I then saw three tracers strafe left to right about five feet above the left side of our rotor disk. I yelled, “Taking fire, taking fire!” and my right-seater broke immediately. I got on the radio and told trail we had just taken fire, but we had not been hit and were pushing off the target. I knew we had gotten too close trying to cover trail as he was taking fire. I estimated we were only 400 meters from the target when I observed the tracer fire.

We were then flying trail behind our air mission commander, so we executed a lead change. Back as lead, we set up for another engagement. This time, before turning inbound, we made sure to brief the distance we would break to remain outside the enemy’s range. We knew we were running low on ammunition and had about one engagement left. Mad Dog 16 reported he was still taking fire from the same location, but the volume of fire was significantly less. I told him we had only enough ammunition for one more engagement, and he requested we go “Winchester” before going to the FARP. We set up for our final engagement and briefed that we would engage at 1,800 meters and break at 1,000 meters. Both lead and trail conducted the engagement without observing fire from the enemy. Mad Dog 16 reported all enemy fire had stopped. We then broke station for refuel at Asadabad.

While at the FARP, we looked for battle damage and, thankfully, found none. After refueling and rearming, we departed north to check on Mad Dog again. He reported he had not taken any more fire since we left. We continued the mission with the convoy to the north and then departed.

**Lessons learned**

No matter what situation you find yourself in, you must always conduct an analysis of risk versus reward. Mad Dog 16 was in danger, but did we put the aircraft in more danger than necessary? What was the convoy’s risk level when under fire from 800 meters with all its troops mounted in their MRAPs? These type questions must be addressed before you choose a specific course of action. Preferably, you have already discussed possible situations like this and others in pilot, mission and team briefs before you pull pitch. Risk and reward analysis should be a deliberate current mission focus of every brief. Granted, every situation is different and may present new risks, but I believe a foundation in risk analysis will enable the individual to make better on-the-spot decisions.

Effective communication and interaction between crewmembers was vital in the success of this mission. Every crewmember in each aircraft had a critical role to fulfill. It doesn’t matter if the mission is in combat or training; a flight crew must always communicate with each other. Pre-mission and in-flight planning during multiship operations is now the standard in combat, and leaders must get involved in the planning and execution of all missions.
Working at a treatment storage disposal facility might not be the most glamorous job, but what goes on inside is pretty important business. Where do you think all that hazardous waste we create ends up? What the job lacks in excitement, though, is more than made up by the potential for danger, as I found out firsthand.

I'd just arrived at my job as a hazardous waste handler and was on my way to change into my work clothes. As I approached the changing room, I saw a drum we'd picked up the previous day sitting on a pallet. What caught my eye was the drum had started to "football," or bulge, at both ends.

Being a first responder for the base, I immediately recognized this as a potential problem and decided to investigate. One of the first things you look or listen for when a drum takes this shape is pinging. If the drum pings, it means the metal is starting to fatigue and might burst. If that happens, you could be facing anything from a normal spill to a full-blown disaster, depending on the material contained inside the drum.

There wasn't any pinging, so I moved on to the second warning sign, which is whether the drum is hot. If it's hot, a chemical reaction probably is happening inside the drum, which can lead to a real problem. I carefully walked up to the drum to check for heat but felt none.

Once I determined the drum was not going to blow, I pulled out the paperwork to see what it contained. The only substances listed were waste oil and paint. I figured the bulging
BOBBY J. PIIRAINEN probably was due to someone overfilling the drum and not leaving a vapor space. It was a warm morning, so it made sense that this was the problem. I decided there was nothing more to do than let the extra air out, so I put the paperwork back on the drum and continued to the changing room.

It took me less than five minutes to change clothes, but as I finished, I started thinking about that drum again. There was something about it that gave me an uneasy feeling and I wanted to investigate more. I left the changing room and walked back toward the drum. I was about 30 feet from it when the top blew.

You must understand this container was a bung-type drum, and its top was welded on tightly. The only way to put material or waste inside this type of drum is to unscrew one of the two bung tops. The force of the blast sent the drum's top about 50 feet in the air. I could feel the force of the explosion from where I was standing.

When it finally dawned on me what had just happened, I decided to leave work a little early to calm my nerves. What would have happened to me had that drum exploded while I was standing over it? The outcome surely would have been bad. Since that day, I've made it a point to tell my story whenever I get the chance. Hopefully my experience will keep someone from making the same mistake or maybe even save their life.

The Occupational Safety and Health Administration offers the following advice for handling bulging drums:

- **Pressurized drums are extremely hazardous.** Wherever possible, do not move drums that may be under internal pressure, as evidenced by bulging or swelling.

- **If a pressurized drum has to be moved,** whenever possible, handle the drum with a grappler unit constructed for explosive containment. Either move the bulged drum only as far as necessary to allow seating on firm ground, or carefully overpack the drum. Exercise extreme caution when working with or adjacent to potentially pressurized drums.

Some motorcyclists only go through safety training to get their license and drive on post. Once off the installation, however, they seem to forget the rules and fail to practice the skills that might save their lives. When riding a motorcycle, even the smallest mistakes can be life threatening, so risk management and situational awareness are crucial.

It was the first warm weekend of spring during my senior year in high school. The northern Virginia winter was bad that year, and the heavy snows we’d been getting had only recently disappeared. With winter behind us, my best friend, Seth, was eager to get his Kawasaki Ninja sport bike on the road again.

The year before, Seth taught me how to ride in the school parking lot, but we only covered the basics — how to shift, what brakes are where and how to use the blinker. I had only ridden his bike on the road once, and I remember being both nervous and excited at the same time. I thought that motorcycle was the coolest thing in the world and wanted to learn how to really ride.

As Seth and I were making plans for the day, my brother called and told me he had just bought a new Honda scooter. He’d wanted a motorcycle but did not know how to ride one. The scooter was more comfortable for him because he didn’t need to shift gears, it was street legal and could get up to 55 mph. Seth suggested my brother stop by so we could all go for a ride.

Within an hour, we were all together on a cul-de-sac near another friend’s house. My brother and Seth took off first, and I could hear them laughing as they drove down the street. About 30 minutes later, they returned so I could have a turn. I was nervous, but being 17 and having my peers around, I didn’t take the time to consider the risks involved.

I hopped on the motorcycle, and my brother and I took off down the street. About 100 yards down the road, there was a sharp turn and, before I knew it, I was sliding on the ground. Even though I was only going about 30 mph, I slid for what seemed like 20 yards, barely missing a mailbox. The Bermuda shorts, tennis shoes with no socks and T-shirt I was wearing didn’t do much to protect me from the road rash that took off most of the skin on my elbows, forearms, hands and knees. Oddly enough, the helmet — the only personal protective equipment I was wearing — never hit the ground.
With the adrenaline pumping, I immediately hopped to my feet and picked up the Kawasaki like it was a Huffy. I then rolled it back to the cul-de-sac and apologized to Seth profusely for crashing his prized possession. Like a good friend, he was more concerned about my condition. I told them I felt fine and didn’t need to go to the ER. He then pointed out the thick stream of blood running down the driveway from my right shoe. I decided I might need to get that checked out.

The injury was extensive. The brake pedal had scooped a chunk of flesh out of my leg and scraped the bone. Because it wasn’t a cut, the doctors couldn’t sew it together. I had to spend nearly a month in Walter Reed Army Medical Center undergoing skin grafts and preventive infection procedures due to the scraped bone.

There are several lessons I learned from my accident — the first being proper training is an absolute must. Had I taken the time to get trained and licensed, I likely could have avoided this accident. Without proper training, you only have a license to fail. Proper PPE is also important and probably would have kept me out of the hospital. A long-sleeved shirt or jacket, pants and gloves would have helped prevent the road rash, and heavy leather boots would have helped me avoid the most painful injury I have suffered in my life. Finally, I should have considered the environment I was riding in before I got on the bike. Because the snows had only recently ended, there was still an abundance of sand and salt on the street. When I drove through that sand in the curve, it was a millisecond ride to the asphalt. That’s a ride I hope to never take again.
When you're driving an Army motor vehicle, whether in a tactical convoy or off-road in the field, you need to know about any dangers along the route. Perhaps there are critical areas where driving off the road is not an option because of dangerous terrain. Maybe some areas are better than others for a comfort stop. If you've driven an Army vehicle, you probably can imagine any number of tactical scenarios where you'd need to drive off the road in a hurry.

The problem is that some Soldiers arrive at their units with little or no driving experience. Imagine a Soldier driving Chalk 3 in a 10-vehicle convoy when the dirt road turns into a muddy, slippery mess. Do you really think that Soldier will be thinking far enough ahead to plan his actions should a drive-off be necessary? I'll give you a case in point.

I was a 19-year-old infantryman taking part in a field exercise with my unit. The exercise was nothing out of the ordinary. In fact, it was very typical because of the rain and mud. I was driving Chalk 2 and had three years of driving...
experience. However, this was the first time I’d driven outside the unit training area. The rain was coming down hard, the rutted dirt road was just wide enough to fit through, and there were large erosion ditches on both sides. I knew the ditches were there, but I was only paying attention to what was going on right in front of me. I was about five truck lengths behind the lead truck when it suddenly swerved off the road and then back on again. Fortunately, the driver did this on a section that didn’t have erosion ditches. Just then I noticed a turtle in the road in front of me. I started to swerve off the road to miss it, but my truck commander grabbed the wheel and kept it from turning. I’d thought I could swerve just as the lead truck had. In that instant, I didn’t think about the ditches on either side of me. I just wanted to miss the turtle. Fortunately, it was a lucky day for all involved. I didn’t drive into a ditch and the turtle made it across the road without being squashed.

The point is drivers need to be briefed on drive-off problems or limitations before they get on the road. Some roads run along 1,000-foot-tall cliffs, while others might border minefields. To keep drivers on the straight and narrow, make sure you emphasize the “terrain” part of your mission, enemy, terrain, troops and time available (METT-T) briefing. And do it before your drivers head out on a mission!
For those of us in the military, especially in a career that requires large amounts of skill for the purpose of ensuring our survival when operating, continued mastery is a way of life. Throughout my career as an Army aviator, I have heard many wise instructors say, “The day when I get in the cockpit and think I know it all is the day that I need to quit.” I have looked up to everyone I have ever heard say that statement.

One person I admire, who has made that statement to me many times, is my troop standardization pilot at my first assignment. He was a senior CW4 with more than 5,000 flight hours in an OH-58D scout helicopter and a person I would consider a master of his craft. I was new to the unit in 2012. I had just graduated from flight school and there was still plenty of war to be fought.

Fresh out of training I was deployed and met my unit for the first time when I stepped off the plane in Afghanistan. After several weeks of training flights, I had proven my competence enough to allow me to perform combat operations. It was the middle of the day during the summer. I was in the left seat, monitoring radios and working aircraft systems; my SP was on the flight controls in the right seat. We were monitoring radio calls of enemy activity originating from the ridge, just to the north of a major Army forward operating base. The reports indicated the enemy forces that had been firing mortars and rockets at the base had hidden inside a cave and knew Americans were looking for them. They were scared.

As we circled the mountainside and looked for the area that fit the description of the enemy hiding point, we discussed some of the options we had available to us. The SP was the senior member of the flight of two OH-58D scout helicopters carrying a total of 14 rockets and 600 rounds of .50-caliber ammunition. We were in the lead aircraft, so decisions were his to make as the air mission commander. The threat to our aircraft by advanced systems was low. We were only about 500 meters north of the large friendly base, so he opted to utilize our flare countermeasures as a way to give a show of presence and develop the situation. We found the cave that fit the description and made low passes, using our flares at the mouth.

We began to receive intel that indicated we were in the right spot on the second flyby, so we wanted to attempt to make the enemy react. The plan was to ensure they knew we had found them by flying as close as possible to the cave and dropping a flare into the opening. Imagine if you can a ridgeline, about 6,000 feet in elevation and a few kilometers long with a cave about 10 feet below the top of ridge, about one-third of the way from the right edge of the ridgeline. Like I mentioned before, we had made two passes at the cave already, popping flares in front of it, with no issues. On the third pass, the SP was determined to place a flare into the mouth of the cave and began the maneuver just like the last attempt.

I was still monitoring radios in the left seat, and the second aircraft was in a position to shoot at the cave if the enemy came out to engage us. The next thing I heard was the SP next to me yell, “Oh, sh*t!” I felt the aircraft jerk to the left and heard the overtorque warning in the headset, “Bong, bong, bong.” I saw him pull up on the collective control to increase our altitude. As he pulled it to its max upward, the tail of the aircraft whipped right as fast as it could. I saw plenty of red on the gauges and reached for the dash and ceiling to stabilize myself in the seat. I then saw the ground coming at us rapidly. I don’t remember if I closed my eyes or not, but the next few moments were a blur as the ground came within inches of the aircraft and the tail barely crested over the top of the ridge with a thump and loud scraping noises.

After that there was silence — at least as much as you could have with a turbine engine 18 inches above your head spinning a rotor at about 500 rpm. We looked at each other and then I heard him tell the other aircraft over
the radio, “We’ve gotta land.” I don’t know if it was his vast experience that saved us or almost killed us. But in his fixation on ensuring a flare, which only falls from the bottom of the aircraft, entered the cave, we had gotten into a position where we barely avoided striking it and the ground in a high-altitude, hot environment.

Luckily, the SP’s reaction on the controls caused us to avoid any permanent damage to the aircraft and we narrowly escaped rolling down a 6,000-foot cliff. When we landed inside the small FOB, the SP pulled a four-foot branch from the rocket pod on the right side of the aircraft. Since we did not sustain any airframe damage and our mission was over, we took the aircraft and our lessons learned back to the unit at our main operating base.

It was a valuable lesson for me in the course of striving for mastery in my craft — one that I have shared many times with other aviators.

Learning from others’ mistakes is just as valuable as learning from your own. We spend many hours talking about these types of scenarios and how we can use the knowledge we gain to find different solutions. In this case, there have been many hours of talk about terrain, winds, aerodynamics and tactics that can be used to avoid or succeed in situations where this type of low flying in high, hot and heavy environments are necessary.
I’d set the cruise control on 70 mph that evening as I enjoyed the long drive home from leave. I was listening to the radio, resting my foot on the gas pedal to give me an added 5 mph. You know how it is... anything to whittle a little more time off the drive.

I noticed rain drops lightly hitting the windshield, but they soon came down in torrents. I wasn’t worried, however, because I was an experienced driver and had navigated this route many times. Before heading out I’d checked the tires, headlights and wipers and even treated the windshield with Rain-X. I owned a very large rear-wheel drive car — one of the safest types of vehicles according to the TRiPS report I filled out before leaving.

Spotting a large puddle ahead, I got off the gas to slow down. In the past that normally worked, but this time was different. My car began slowly fishtailing — first in one direction and then the other. Although I reacted by turning into the skids, things only got worse. I was fishtailing so badly I could see the headlights of the vehicles behind me through my windshield. Instead of slowing down I could hear my engine speeding up, so I tapped the brakes. Fortunately, I was able to straighten out and pull over to the shoulder. I nearly had a heart attack sitting there waiting to calm down. I’d barely avoided totaling my vehicle. If the cars trailing me had been any closer, there’d have been mangled metal on the road — or maybe worse.

I tried to figure out why this happened. I’d prepared for the trip properly, was experienced, took the appropriate steps and even accounted for the weather. It took me a while, but I finally recognized what occurred. Although I’d taken
my foot off the gas to slow down, the cruise control was still engaged at 70 mph and providing power to the rear wheels. When I hit the puddle, my tires immediately began to hydroplane and the engine actually increasing power to try to keep me at 70 mph. That is what sent me out of control. It never occurred to me that would happen.

When I looked this up online, I found the following information from the Insurance Corporation of British Columbia. It states, "The only way to stop wheels from spinning and maintain control is to immediately reduce power. An activated cruise control system applies continuous power, keeping the wheels spinning. By the time you disengage the cruise control it may be too late — you may have already lost control."

So what can you do when you’re driving on wet roads? The National Safety Commission recommends you disengage your cruise control the moment it starts to rain or you encounter wet road conditions. The sooner you do it the better because even tapping the brakes to disengage your cruise control can send you skidding on a wet road.

To stay safe on wet roads requires being especially alert to the added risks involved. Cruise control, a welcome convenience for long trips, can pose its own risks when the weather turns nasty. To keep your drive from turning nasty, stay alert to stay alive.
A DEADLY COMBINATION
NEVER HANDLE A WEAPON WHILE UNDER THE INFLUENCE.

YOUR LIFE,
OUR LOSS

Everyone is susceptible to mishaps, but tragedy is not inevitable: Take advantage of the risk management process and tools the Army provides to help keep you safe. Remember, IT’S YOUR LIFE, BUT OUR LOSS.

To learn more, visit https://safety.army.mil.
When a Soldier dies in a preventable accident, it has a detrimental effect on the morale and welfare of the unit. That Soldier’s absence, however, extends beyond the Army because often they also leave behind a heartbroken family, friends, and colleagues. Remember, **IT’S YOUR LIFE, BUT OUR LOSS.**
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