VEHICLE PARKING: DON'T FORGET THE CHOCK BLOCKS

KNOWLEDGE

VOL 6 JULY 2012

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

GUIDING TO SAFETY

- DESIGNATED DRIVERS
- REFRESHER TRAINING
- SETTING STANDARDS

+

WIRE STRIKES

U.S. ARMY
ARMY STRONG.

A BAND OF BROTHERS & SISTERS

SCAN HERE FOR KNOWLEDGE ONLINE

A NOTE TO OUR SUBSCRIBERS

Beginning this month, **KNOWLEDGE** magazine subscribers will see a 20 percent reduction in the number of copies their units/organizations receive. While the U.S. Army Combat Readiness/Safety Center wants **KNOWLEDGE** to reach as many readers as possible, this action is necessary to trim production and distribution costs without losing any of the valuable safety information contained within the pages of the magazine. We are asking you, as a **KNOWLEDGE** subscriber, to assist us in this endeavor by reviewing your organization's distribution plan to ensure the number of magazines you have requested supports our new target magazine-to-reader ratio of 1:10. You can further help our efforts by letting us know if your unit is deploying or returning from a deployment so we can ensure your subscription follows your unit through the deployment cycle.

Thank you for your support.

To update your **KNOWLEDGE** *subscription information, visit*
https://safety.army.mil/knowledge_subscribe

U.S. ARMY COMBAT READINESS/SAFETY CENTER

ARMY SAFE IS ARMY STRONG

KNOWLEDGE

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

LEADERS SOLDIERS CIVILIANS FAMILIES

THIS MONTH >>CONTENTS

SAFETY >>FEATURES

FROM THE >>COVER

MEDIA >>RESOURCES

Posters

ONLINE >>EDITION

https://safety.army.mil

Join the USACR/Safety Center community on facebook

U.S. ARMY COMBAT READINESS/SAFETY CENTER

ARMY SAFE IS ARMY STRONG

Brig. Gen. Timothy J. Edens Commander/Director of Army Safety
Command Sgt. Maj. Richard D. Stidley Command Sergeant Major
Michael J. Negard Director, Strategic Communication

Chris Frazier Managing Editor
Bob Van Elsberg Writer/Editor
Paula Allman Writer/Editor
Lori Yerdon Writer/Editor
Blake Grantham Graphic Design
Taryn Gillespie Graphic Design

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

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

Knowledge is published monthly by the U.S. Army Combat Readiness/Safety Center, Bldg. 4905, 5th Ave., Fort Rucker, AL 36362-5363. Address questions regarding content to the managing editor at (334) 255-2287. To submit an article for publication, email christopher.frazier4@us.army.mil or fax (334) 255-9044. We reserve the right to edit all manuscripts. Address questions concerning distribution to (334) 255-2062. Visit our website at https://safety.army.mil.

> "The Army is the **FIRST** adult **EXPERIENCE** many Soldiers will have, and we **CAN'T SET THEM UP FOR FAILURE** by acting like children **OURSELVES**."

NCOs: THE BACKBONE OF STANDARDS

There's no doubt noncommissioned officers have one of the toughest jobs in today's Army, but the corps is still going strong after more than a decade at war. Even in the face of extreme challenges, NCOs at every level continue to prove they truly are the backbone of our force, doing great things for their Soldiers every day. I would be remiss as an NCO myself, however, if I didn't talk with you about our continuing issue with enlisted leaders and indiscipline, especially regarding privately owned motorcycles.

In general, I don't like to repeat the same things you've already heard many times, often from me. But this problem is too important to ignore, and it bears repeating that we simply have to get a handle on NCO indiscipline. It's not just their lives on the line — the example they're setting by willfully disregarding the standard also puts their Soldiers at risk.

The numbers from this fiscal year are sobering: Of all motorcycle fatalities recorded through June 1, more than half were NCOs. With the exception of a couple accidents where other drivers were at fault, nearly every incident involved some form of indiscipline, whether speeding, nonuse of personal protective equipment or improper passing of other vehicles. Although we can't watch our Soldiers every minute of every day, we do have control over our own behavior, and the bottom line is an NCO is a leader all the time.

We also have to remember these losses reflect only those NCOs whose risky behavior caught up with them. How many more among our ranks are taking potentially deadly risks every day? There's a difference between an undisciplined Soldier and an indisciplined one. Undisciplined Soldiers haven't been trained to know what right looks like but can be brought to standard in everything they do, including riding. An indisciplined Soldier, however, is one who knows the standard and is trained to it, but consciously chooses to do whatever he or she wants anyway. Even though the majority of NCOs involved in this year's fatal motorcycle accidents had the proper training and the right personal protective equipment, they simply chose not to follow the standard, and that's the textbook definition of indiscipline.

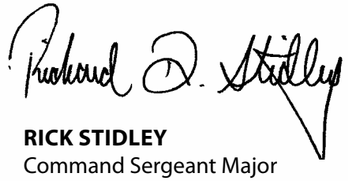
The trickle-down effect of this mentality is particularly dangerous. Our junior enlisted Soldiers are almost invariably young and impressionable. When they see their leaders making bad decisions with impunity, what's to stop them from doing the same? Not counting NCOs, every Soldier killed in a motorcycle accident — and all but three killed in privately owned vehicle accidents — thus far in fiscal 2012 has been a junior enlisted member. This doesn't mean these Soldiers had bad leadership, but it does indicate our NCOs need to step up and take the lead on enforcing standards and modeling appropriate behavior. The Army is the first adult experience many Soldiers will have, and we can't set them up for failure by acting like children ourselves.

I don't mean to be harsh and I'm certainly not saying all, or even most, of our NCOs are indisciplined. But we have a tough problem with at least a few of our leaders, and it must be addressed immediately. From the squad leader to the command sergeant major, we should all be engaged with and looking out for one another's well being, ensuring the duties of leadership are fulfilled both on and off duty. It's not an issue of rank; it's about taking personal ownership of your responsibilities as an NCO, and leaders looking out for leaders as fellow Soldiers.

We're all in this fight together, and I'm here to help any way I can. Please don't hesitate to let me know how I or the USACR/Safety Center can augment your safety efforts. Also keep in mind that with summer in full swing, water-related incidents are sure to increase these next couple months. Please talk with your Soldiers about their plans and reinforce the dangers of alcohol and boating or swimming. Many drowning deaths are attributed to alcohol every year, and its effects can dull the reflexes and judgment of even experienced swimmers.

Thanks again for all your hard work every day — you are making a difference for our Soldiers and our Army. Enjoy your summer, and always play it safe!«

Army Safe is Army Strong!



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

What Would You Do?

CHIEF WARRANT OFFICER 4 TIMOTHY EDGETTE
Accident Investigations Division
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Our mission was to conduct a multiship air assault of ground forces. We were under night vision goggles with less than 20 percent illumination and below 300 feet above ground level. I suddenly noticed out of the left side of my field of view a set of wires perpendicular to our route of flight. At that exact moment, my left-side door gunner announced, "Wires!"

I took the controls, or at least the cyclic, and nosed the aircraft toward the ground to clear the barely visible set of wires. Simultaneously, I lowered the thrust control lever in an effort to dive/drop the aft rotor system under the wires. Ahead, the narrow valley we were following made an almost 90-degree right turn followed immediately by a sharp left turn.

We were within three miles of our intended helicopter landing zone and there were still several more aircraft, three to five minutes behind our position, intending to use the same valley for their infiltration. Nosing the cyclic forward toward the ground assisted our clearing the wires with the forward rotor head. However, I wasn't as certain about the aft rotor head.

In case you're wondering, the aircraft we were flying was a Chinook. So what would you have done if you were in my cockpit — besides asking yourself, "Where did those wires come from?" or "How come we were not told or warned of those wires?"

There is nothing taught in flight school that can prepare us for this situation. Of course, we did all of the preflight preparations such as reviewing maps and imagery, both digital and paper. We can always recall "all roads have wires" — only there was no road in this valley. We also had no chart update manual map available that depicted those wires.

There I was, flying in a dark valley with 28 passengers and a crew of seven, wondering if we had hit those wires. We were within three miles of our HLZ and a 20-minute flight from the nearest forward operating base. I thought, "Do I reference my technical manual or my -10 checklist with a condensed version of the emergency procedures?" Recalling the underlined steps of an emergency procedure or asking the crew to help me with the -10 checklist would not have helped. The Chinook is not equipped with a wire strike protection system and there are no emergency procedures for a suspected or actual wire strike. Still, we know that regardless of the aircraft size, wires and power lines pose a serious threat to the safety of our crew and aircraft. Therefore, as we rapidly approached the sharp right turn, we were still not confident our aft rotor system could actually clear the wires safely. Given that situation, what would you do?

I chose to land immediately to verify if the aircraft was still airworthy. This was important before I committed the passengers, crew and myself any deeper into the valley beyond the point of no return with a broken aircraft on the verge of coming apart.

There are many accidents involving aircraft hitting wires. We must have the vigilance, maturity and a desire to arrive alive and fight another day. After all, an assault aviator's portion of the mission is just that, a portion of the overall mission. Jeopardizing the passengers and crew with continued flight without ensuring the airworthiness of the aircraft would not have been prudent.

What are we expecting to find once we've landed? What are we looking for to confirm or deny the wire strike? What do we do if we find damage? These are all valid questions. Those thoughts probably crossed my crew's mind, but the decision to immediately land was so fast that it wasn't until afterward that I was able to explain to the crew what just happened.

When we were safely on the ground with little to no moon and/or celestial light, I asked the crew to inspect the aircraft for a suspected wire strike. I instructed them to look for wire wrapped around the

> There is **NOTHING** taught in flight **SCHOOL** that can **PREPARE** us for this **SITUATION.** Of course, we **DID** all of the preflight **PREPARATIONS** such as reviewing **MAPS** and **IMAGERY**, both digital and paper.

aft head or possibly visible pieces of the aft rotor head out of place because the wire either severed or sheared it. My biggest concern was the aircraft had not exhibited any unusual flight characteristics during the 20- to 30-second flight after the suspected strike. I feared it was just a matter of time before a portion of the aft rotor came apart, making continued flight impossible.

I instructed the crew to use their white lights and inspect the aft rotor head, paying particular attention to the aft pylon area, blades and rotor head. Following a quick but thorough look, we found no visible damage and discussed our next course of action. I decided to conduct a final verification. Although I was confident the aircraft was capable of flight, I wanted to pick it up to a hover, thereby loading the aft head and moving the flight controls similarly to a flight controls check conducted as part of a hover check per Chapter 8 of the -10. This check was to verify the aircraft's airworthiness — the theory being that if something should fail during the hover check, our chances of survival were far greater falling from 5 to 10 feet to the ground than if we were to proceed to the HLZ at 60 to 80 knots and 150 to 300 feet AGL.

I picked up the aircraft to approximately 8 feet and conducted a quick flight controls check. Now more confident that the aircraft was functioning normally, I transferred the controls and we proceeded to the HLZ. Following our infiltration, we returned to our home station/base and shut down the aircraft. With the sun coming up, we inspected the aircraft and noted the forward rotor head had cleared the wires, but there was a scratch found on the aft pylon, No. 1 engine side, which was suspected to have been caused by the wires rubbing along the aft pylon below the level of the rotor system. No repairs or maintenance were required.

Despite the fact the operator's manual does not tell us what to do in the event of a suspected wire strike during a stateside aircrew training manual flight, I believe most aviators would have immediately landed, shutdown and gone over the aircraft with a fine-tooth comb. However, this suspected wire strike was while conducting a combat mission.

What would you have done? Would you have continued to the HLZ? Would you have turned around and flown to the nearest FOB more than 20 minutes away? Or, would you have landed and inspected the aircraft with it running like we did or would you have shut down the aircraft while in a combat zone? We can simulate and discuss a myriad of emergency procedures and unanticipated events that could occur during a flight, but do we really ever ask ourselves what we would do in a similar situation?

DESIGNATED DISASTER

2ND LT. CHRIS FOUNTAIN
Wheeler Army Airfield, Hawaii

It was a Friday night and the four of us were drinking and having a good time at a party. One of my friends, Becky, was our designated driver for the night. Another friend, Al, was getting loaded, while my friends, Mike and Steve, were putting down their fair share, too, albeit at a more responsible rate.

The night was going pretty well until some of the guys — motivated by being a bit too hammered — started getting into fights. Meanwhile, Becky had gotten bored with the party and was sneaking drinks. By the end of the night, everyone was ready to go. We got into our cars and headed home, driving on familiar roads out in the country.

On our way home, we noticed Becky was having trouble driving and swerving a little. We more or less ignored that because Al, who'd had way too much, was distracting us from Becky's driving. She was driving a bit too fast, especially for her condition, lost control, swerved into a ditch and hit a pole. Her air bag opened up, but Al — unbelted in the backseat — was tossed around inside the car. Mike, sitting in the right-front passenger seat, had his air bag inflate, while Steve, who was in the backseat, was in a daze, drifting in and out of consciousness.

After the accident, we all got out of the car. Fortunately, none of us were seriously hurt. We called 911, and emergency responders came out and treated us for our injuries. The police checked Becky and found her blood alcohol concentration was over the legal limit for driving. She was taken to jail for the night and issued a court date for driving under the influence.

Besides the humiliation of being arrested for DUI, Becky had to complete several courses and perform community service as part of her sentencing. She also had to pay a hefty fine, not to mention her car was totaled. Al, although not seriously injured, was scarred for life because he was not wearing his seat belt. Mike and Steve are now against people drinking and driving, even if they've only had just a little bit.

There were some simple lessons to be learned from this experience. First, don't drink and drive; alcohol affects your judgment from the very first drink. Second, don't ride with a driver who has been drinking. Whoever the designated driver is, make sure they're actually sober and haven't been sneaking a few. If you suspect they have, do yourself a favor and call a friend or cab to get you home safely. Be responsible for yourself by knowing your limit and not letting distractions in the vehicle jeopardize your safety or that of other passengers.

Mixing alcohol with asphalt can easily turn a night into a nightmare. Before you get caught up in that, remember you've got three options for the next morning. You can wake up remembering the fun you had. You can wake up with a head-pounding hangover you'd probably gladly forget. Or, you can skip waking up the next morning and just "rest" quietly in the morgue. What's your choice?

Editor's note: The names of the individuals involved in this incident have been changed to protect their privacy.

WHY DIDN'T HE WAIT?

CHIEF WARRANT OFFICER 2 JONATHAN MORRISON
F Company, 1st Aviation Regiment
Fort Riley, Kan.

A great friend of mine was killed in Iraq in 2003. I was a specialist at the time and never could've imagined how the loss of someone I was close to — a noncommissioned officer — would affect me. Together, we entered Iraq and survived the harsh conditions. Driving in the sand with night vision goggles and blackouts on — you name it, we did it. Our unit accomplished a monumental task of driving more than 20 hours nonstop without a single accident. We were vigilant about making safety our top priority.

The days leading up to the death of my friend were very hot. I remember one day the temperature reached 137 F! In heat like that, no one wants to move around. In fact, when it's that hot, it's hard to even think straight. Every thought seems to revolve around who is going to rotate into the cooling tent next. More important thoughts, such as what tools are necessary to perform a potentially hazardous job, seem to fall by the wayside.

On the day of the accident, my friend had a few odds and ends to do, but one task in particular had to be completed. A Heavy Expanded Mobility Tactical Truck tire needed to be changed. My friend, along with another NCO and two specialists, set out to accomplish the mission. The tools needed for the job were typical heavy equipment tools, including a tire cage and a 10-foot extension air hose. Unfortunately, the motor sergeant wasn't at the motor pool and wouldn't be back until later in the day, so they didn't have access to the necessary tools to change the tire.

The four Soldiers needed

DID YOU KNOW?

Personnel must receive training and be qualified to perform tire maintenance. Tire maintenance is a high-risk task, so it is important that personnel conducting this task understand and perform the procedures correctly using the proper tools and equipment. Failing to do so could cost a Soldier his/her life or serious injury. Here are a few safety tips to assist during tire maintenance operations:

- Follow all the steps outlined in the respective technical manuals to include the cautions and warnings.
- Deflate the tire by removing the valve core from the valve stem before attempting to disassemble wheel components.
- Always use a tire safety cage to inflate the tire/rim assembly not mounted on a tire-changing machine that has a positive lockdown device designed to hold the assembly during inflation. When using a tire-changing machine, always follow the manufacturer's mounting and safety instructions.
- Always use an extension air hose (minimum 10 foot) and a pneumatic tire inflator-gauge when inflating tires in a tire safety cage.
- Never lean, stand or reach over the tire/rim assembly during inflation. Remain out of the trajectory of the side ring flange and lockring.
- Never put hands or fingers near the rim flanges or bead seats. Keep all body parts out of the inflation safety cage during inflation. Never overinflate tires; stick to the PSI requirements listed in the TM. If the beads do not seat, deflate, demount and check the tire/rim match. Mount and lubricate according to the instructions.
- Apply composite risk management to all tasks — to include maintenance. Take into account mission criticality, equipment characteristics and environmental conditions.

Useful Resources:

- TM 9-2610-200-14, Care, Maintenance, Repair, and Inspection of Pneumatic Tires and Inner Tubes: https://www.logsa.army.mil/etmpdf/files/040000/045000/045844.pdf
- USACR/Safety Center's Driver's Training Toolbox: https://safety.army.mil/drivertrainingtoolbox
- OSHA Servicing Multi-Piece & Single-Piece Rim Booklet: http://www.osha.gov/Publications/wheel/wheel-chart-booklet.pdf
- OSHA Dismounting and Mounting Tubeless & Tube-Type Tires: http://www.osha.gov/pls/publications/publicationathruz?pType=Industry&pID=319

> "My friend **SURVIVED COMBAT** only to **MEET HIS END** at the unforgiving **METALLIC EDGES OF A SPLIT RIM.**"

to get the HEMTT's tire changed quickly and didn't want to wait for the motor sergeant to return. They discussed using field expedient methods to change the tire, and my friend brought up an idea he used in a previous deployment. He wanted to use a crane that was attached to the HEMTT to hold down the tire while they inflated it.

After 30 minutes, they had the tire on the split rim and decided to put it back on the truck. They accomplished that task without any problems, but when my friend added more air, the split rim exploded. He wasn't as far away from the tire as he would've been had he been using the 10-foot extension air hose required for the job. The split rim came out with a vengeance, striking my friend in the chest and neck. He died almost instantly. The other NCO was injured — his jaw, shoulder and arm broken. The other two Soldiers suffered partial hearing loss.

My friend survived combat only to meet his end at the unforgiving metallic edges of a split rim. After the fact, I tried to imagine what he was thinking. I never knew him to be in such a rush that he would jeopardize his safety. All I came up with was, "Why didn't he wait?"

Sometimes we make decisions we think will move along the mission faster. However, sometimes those decisions end in a needless loss for the unit as well as for Family members. This was a sad lesson learned. I miss my friend terribly and am proud to have served with him in defense of our country. I hate losing him to such a senseless accident.

TIRE SAFETY CHECKLIST

- Check tire pressure regularly (at least once a month), including the spare.
- Inspect tires for uneven wear patterns on the tread, cracks, foreign objects or other signs of wear or trauma.
- Remove bits of glass and other foreign objects wedged in the tread.
- Make sure your tire valves have valve caps.
- Check tire pressure before going on a long trip.
- Do not overload your vehicle. Check the tire information placard or owner's manual for the maximum recommended load for the vehicle.
- If you are towing a trailer, remember that some of the weight of the loaded trailer is transferred to the towing vehicle.

For more information, visit www.nhtsa.gov or call 1-888-327-4236.

FYI

Studies of tire safety show that maintaining proper tire pressure, observing tire and vehicle load limits (not carrying more weight in your vehicle than your tires or vehicle can safely handle), avoiding road hazards and inspecting tires for cuts, slashes and other irregularities are the most important things you can do to avoid tire failure, such as tread separation or blowout and flat tires. These actions, along with other care and maintenance activities, can also:

- Improve vehicle handling
- Help protect you and others from avoidable breakdowns and accidents
- Improve fuel economy
- Increase the life of your tires

STEPS FOR MAINTAINING PROPER TIRE PRESSURE

Step 1: Locate the recommended tire pressure on the vehicle's tire information placard, certification label or in the owner's manual.

Step 2: Record the tire pressure of all tires.

Step 3: If the tire pressure is too high in any of the tires, slowly release air by gently pressing on the tire valve stem with the edge of your tire gauge until you get to the correct pressure.

Step 4: If the tire pressure is too low, note the difference between the measured tire pressure and the correct tire pressure. These "missing" pounds of pressure are what you will need to add.

Step 5: At a service station, add the missing pounds of air pressure to each tire that is underinflated.

Step 6: Check all the tires to make sure they have the same air pressure (except in cases in which the front and rear tires are supposed to have different amounts of pressure).

If you have been driving your vehicle and think that a tire is underinflated, fill it to the recommended cold inflation pressure indicated on your vehicle's tire information placard or certification label. While your tire may still be slightly underinflated due to the extra pounds of pressure in the warm tire, it is safer to drive with air pressure that is slightly lower than the vehicle manufacturer's recommended cold inflation pressure than to drive with a significantly underinflated tire. Since this is a temporary fix, don't forget to recheck and adjust the tire's pressure when you can obtain a cold reading.

SAFETY BEFORE GLORY

CHIEF WARRANT OFFICER 4 ROBERT C. RUSSELL
1st Military Intelligence Battalion (Aerial Exploitation)
Wiesbaden Army Airfield, Germany

"Dakota" was announced over the Air Battle Net, indicating the flight of four CH-47s with dual shotgun HMMWVs on long lines had reached the release point and would starburst to four separate landing zones. After about one minute of flight, all aircraft lost communication with each other due to the limited line of sight and aged, failing equipment. In zero illumination, I was in the lead aircraft using my limited experience and flight training to find an LZ, which was located along the border of a non-allied country in a very austere environment. Once we delivered the load and our passengers, we exited the LZ en route to the start point. Our plan was to link up with the flight as we returned to the pickup zone for one more trip into the objective area. Just shy of the SP, I heard a broken radio transmission over the ABN: "The HMMWVs are in a pile, but we're OK."

One of the infantryman's mottos is, "Close with and destroy the enemy by fire and maneuver." There is no mission we cannot conduct, no piece of high ground we cannot secure and no objective we cannot conquer — by any and all means necessary. Sometimes these thought processes overextend our abilities. As leaders and Soldiers, we educate ourselves to recognize and ensure we do not put ourselves in vulnerable situations. We must adhere to our knowledge and training and the experience of those around us to ensure we accomplish the mission while taking care of Soldiers. It's an age-old thought, I know; however, this way of thinking has helped us create the most feared military force on the planet.

As with all air assaults, there's a ton of planning that occurs prior to the aircraft reaching the RP. Many different planning techniques and procedures have surfaced over the years. Most factors can be controlled or overcome with some thought and creativity. However, some factors simply cannot be changed. We cannot control the weather, illumination or landing environment. We can engineer better aircraft, night vision goggles, weather reporting equipment and tools to help mitigate risks and ensure crewmember safety and mission accomplishment.

Mitigation seems simple; all we have to do is change times, move our location or change techniques. We hold extensive planning and coordinating meetings to ensure missions are prepared with the expectation that no individual or equipment will be harmed, killed or destroyed. There are times in planning when some risks just cannot be mitigated; these instances require the approval from appropriate levels of command. However, most risk factors can be mitigated in the planning process. We cannot eliminate the risk, but we can definitely reduce the level of severity.

Composite risk management was used extensively during the planning of the aforementioned mission. Great aircraft, global positioning systems, improved NVG and superior imagery enabled the mission to be conducted very close to an unfriendly border. External load training while using NVG was completed in the months prior to execution. This training allowed the pilots to perfect their skills for this extremely difficult long-line external load. Long lines allow the aircrew to increase the distance of the aircraft from the load that hangs below. Hovering over 100 feet while the load remains at 10 feet above the ground increases the difficulty of the maneuver and the need for superior-skilled pilots.

This leaves the weather, illumination and environment to be mitigated. The weather forecast for this particular night was great for aviators, with visual flight rules and visual meteorological conditions. The LZs were chosen with top-notch imagery and overhead video, with few, if any, hazards expected. Lastly was the factor of illumination. All aviators know that it's easier to see with larger percentages of illumination. This night and the time of insertion was a zero-illumination night. Easy mitigation, right? Just move the insertion time later to increase the illumination.

Wrong! Based on that exact recommendation, the planning officer in charge decided to execute the mission while the illumination was zero percent.

Thankfully, all that was lost that night were two HMMWVs. With zero illumination, the damages could have been a lot worse, including crashed CH-47s, dead or injured aircrew members and/or dead or injured infantrymen.

Once back in the PZ, I contacted the crew that jettisoned the load and asked how they felt. The crew assured me all was good and they could continue the mission for the second trip to the LZs. The second insertion went without an issue. By then, 30 minutes had passed and the moon had risen, allowing for 60 percent illumination. It's too bad that a simple and legitimate recommendation was denied for a one-hour time change. We all want success and victory, but don't let the glory of your idea get in the way of safety!

> "**WE** must adhere to our **KNOWLEDGE** and **TRAINING** and the experience of those **AROUND** us to ensure we **ACCOMPLISH** the **MISSION** while taking care of **SOLDIERS.**"

Refresher Training Saved Me

1ST SGT. GEORGE DESROCHERS
Headquarters and Headquarters Company, 126th Aviation Battalion
North Kingstown, R.I.

Home on leave during Operation Iraqi Freedom III, my wife and I wanted to do something special. We booked a 10-day dive trip to Cozumel, Mexico, with 16 of our closest friends and Family. Our timeline was tight; I had only 26 hours at home before we had to leave for our vacation. Thinking ahead, my wife had my dive gear serviced and suitcase packed before I even arrived home.

The trip was easy, with just a short layover in Atlanta and then straight to Cozumel. Once we arrived at the hotel, our group agreed to unpack, have a bite to eat, grab our gear and meet at the dock for our checkout dive. Knowing it had been more than a year since my last dive, our friend, Dave, a professional dive instructor, took me aside to review emergency procedures and hand signals. I'd logged more than 250 dives and taken both Professional Association of Diving Instructor advanced and rescue diver courses. I wasn't convinced I needed a mini refresher on diving, but I was too tired to argue.

We did our checkout dives in front of the hotel that afternoon and everything went well. The equipment functioned perfectly and the water temperature was 84 F with unlimited visibility. We saw some spotted eagle rays, schools of jacks and there were huge parrotfish everywhere. There was a hint of anticipation among the group as we were all looking forward to the next day's dive.

The second day started better than the first. On the way to the dive destination, a group of dolphins led the way. For our first dive, we descended to about 90 feet and drifted along the colorful reef. However, about 20 minutes into the dive, my regulator had a catastrophic failure. At first, I wasn't sure what had happened. The water around me was filled

"The WATER around me was FILLED with compressed air bubbles and I WAS UNABLE TO TAKE A BREATH!"

with compressed air bubbles and I was unable to take a breath! I spat out my main regulator and attempted to clear and breathe off my secondary regulator. With all the air rapidly leaking from my tank, I gave the signal to my wife to buddy breathe. We ascended to the surface and the boat picked us up.

I inspected my equipment and discovered my regulator failed because of unseen cracks in the internal housing. I ended up renting a new regulator from the dive shop and, after good preventive maintenance checks and services on the equipment and a checkout dive, we headed out for more diving. The trip ended up being one of my most memorable — on many levels— and well-deserved vacations.

I'm convinced the refresher training my buddy gave me on the first day saved my life. Even though I was tired and not completely focused, the quick refresher on emergency procedures and hand signals helped me avert disaster. Take it from me — applying composite risk management works in everything we do both on and off duty. We can never give safety a day off, even on vacation.«

DID YOU KNOW?

According to familydoctor.org, most severe dive-related injuries and deaths happen to beginner divers. To be safe, always dive within the limits of your experience and training level. Good rules to follow for safe diving include:

- **Never dive if you feel uncomfortable with your equipment or surroundings.**
- **During descent, you should gently equalize your ears and mask. At depth, never dive outside the parameters of the dive tables or your dive computer (information that helps you avoid decompression sickness).**
- **Never hold your breath while ascending. You should always ascend slowly while breathing normally.**
- **Become familiar with the underwater area and its dangers. Learn which fish, coral and other hazards to avoid so injuries do not occur. Be aware of local tides and currents.**
- **Never panic underwater. If you become confused or afraid during a dive, stop, try to relax and think the problem through. You can also get help from your dive buddy or dive master.**
- **Never dive without a buddy.**
- **Always plan your dive; then always dive your plan.**
- **Be sure your diving equipment can handle the dive you have planned and your equipment is working well.**
- **Don't drink alcohol before diving.**
- **Never dive while taking medicine unless your doctor tells you it's safe.**
- **Diving can be dangerous if you have certain medical problems. Ask your doctor how diving could affect your health.**
- **Cave diving is dangerous and should only be attempted by divers with proper training and equipment.**
- **If you don't feel good or if you are in pain after diving, go to the nearest emergency room immediately.**
- **Don't fly for 12 hours after a no-decompression dive, even in a pressurized airplane. If your dive required decompression stops, don't fly for at least 24 hours.**

For more information on scuba diving, visit familydoctor.org.

CLICK IT OR TICKET FOR LIFE

STAFF SGT. VASIL MENCEV
A Company, 209th Aviation Support Battalion, 25th Infantry Division
Wheeler Army Airfield, Hawaii

A little more than two years ago, a friend of mine was involved in an accident where an oncoming car crossed the centerline and struck his truck head-on. The tremendous impact forces caused by the vehicles' combined 120-mph speeds crushed my friend's truck, trapping him inside for two hours before rescue personnel could free him. He suffered multiple fractures to his feet, legs and knees, and doctors estimated it would be a year before he could walk again.

Medical personnel said if my friend had not been wearing his seat belt, he could have been instantly killed or his spine or neck broken. Despite the advances in automobile safety such as seat belts and air bags, thousands of people are killed and injured in accidents each year. Police officers are confronted daily with reasons why people don't wear their seat belts. Here are some of the most common myths they encounter:

"I don't need a seat belt when I'm traveling at low speeds or going on a short trip." In reality, more than 80 percent of all accidents occur at speeds less than 40 mph. Three out of four accidents occur within 25 miles of home.

"I stand a better chance if I am thrown clear of an accident." Actually, your chances of being killed are almost 25 times higher if you are thrown from the car in an accident. Seat belts can keep you from being thrown through the windshield or sunroof, scraped along the ground or crushed by your own car.

"If I wear a seat belt, I might be trapped in a burning car." Less than one-half of 1 percent of injury accidents involves a fire. If you are not restrained, you could be stunned or knocked unconscious and unable to get out of your car. You are also more likely to be crushed between the floor and dashboard if you don't wear your seat belt.

"If it is my time to go, it won't matter if I am wearing my seat belt." Don't leave your life in the hands of fate to decide whether you live or die. Choose to improve your chances of survival by wearing your seat belts.

Since the invention of air bags, many people believe they no longer have to wear their seat belts. Relying on air bags alone and not using your seat belt is more dangerous than not having air bags at all. Air bags should be considered additional protection, not a replacement for safety belts.

Set the example for your children. If you don't wear your seat belt, chances are they won't wear theirs. Don't jeopardize your children's lives by not restraining them while in the car.

Editor's note: Drivers who choose to not buckle up and rely on air bags to protect them fail to understand the dynamics occurring during a collision, according to the Insurance Institute for Highway Safety. The Institute reports that such drivers tend to move forward in their seats when braking or maneuvering to avoid a frontal collision. This puts them dangerously close to their air bag and more likely to hit it while it is still expanding at its greatest force and velocity. The result is a greater likelihood of serious or even fatal injuries.

> "**SET** the **EXAMPLE** for your **CHILDREN.** If you don't **WEAR** your **SEAT BELT**, chances are **THEY** won't wear **THEIRS.**"

Guiding to Safety

MICHAEL WOOD
Ground Directorate
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

Moving large pieces of equipment in tight spaces requires a properly trained and positioned ground guide. However, it only takes a split second to lose sight of your ground guide, or for him or her to make a wrong move that could result in major damage to a piece of equipment or, even worse, a fatal injury. The Army's equipment is often large and can be awkward to move into position, and rough terrain and adverse weather create extra hazards.

As a new division safety manager on my first deployment, one of the first lessons I learned was to visit the surgeon's and provost marshal's offices before each battle update brief. As a safety manager, you never want the commander to ask you about an injury or accident you don't know about. Reviewing injuries treated by the medical staff and accidents reported in the military police blotter will provide you with information to analyze hazards in your area of operations. This information was invaluable to me as I prepared to brief commanders during the nightly BUB. I was able to talk about incidents and recommend what measures/controls we needed to implement in our

DID YOU KNOW?

Army Regulation 385-10, The Army Safety Program, provides detailed guidance on safe motor vehicle operation. Chapter 11-4 outlines the requirements of using a ground guide. It states:

c. Assistant driver scheduling guidance.
(1) If more than 10 hours are needed to complete operations, commanders will assign to each vehicle an assistant driver who is qualified to operate the vehicle.
(2) Assistant drivers for other operations will at a minimum, be familiar with the vehicle operations and trained for ground guide duties. Other operations that require assistant drivers include—
(a) **More than 4 hours of the mission are expected to be during darkness.**
(b) **The need to wear mission-oriented protective posture equipment is anticipated.**
(c) **Night vision goggles will be worn during the mission.**
(d) **Travel over unfamiliar terrain will require detailed en route navigation.**
(e) **Use of a ground guide is anticipated and required.**
(f) **Deteriorating weather or road conditions are expected.**
(g) **High-value or mission-critical weapons systems or equipment is being transported.**
(h) **Other unusually difficult mission conditions are expected.**

h. Ground guides. **Ground guides are required when wheeled and tracked vehicles are backed, or when moved within an assembly area or motor pool.**
(1) Ground guides will be properly trained in accordance with FM 21–60, Visual Signals; TC 21–305-20, Manual for the Wheeled Vehicle Operator and TC 21–306, Tracked Combat Vehicle Driver Training.

AR 385-10, Chap. 11–10. Army combat vehicle safety guidelines
d. Bivouac and assembly areas.
(4) Operators will move ACVs in motor pools, parking areas, cantonments, assembly, and sleeping areas only when a dismounted ground guide assists. When visibility is reduced, guides will use flashlights to direct vehicles. The TC or VC, driver, and dismounted ground guide will maintain visual contact at all times.

efforts to prevent future mishaps.

After the first few weeks of reviewing the MP blotter, a trend began to develop. The failure to use ground guides was causing minor fender benders with Army motor vehicles as they maneuvered. In hopes of reversing this trend, I stepped up my efforts and provided additional information related to ground-guiding procedures. Unfortunately, our first major accident was caused by failure to use a ground guide.

A wheeled convoy mission began at 7 a.m., traveling a route that included traversing an armored vehicle-launched bridge over a mountain pass, and concluded with a return over the same route after completing the mission. The convoy consisted of four HMMWVs and one HEMTT tanker. The first leg of the mission was completed successfully; but on the return trip at 8:40 p.m., complacency and indiscipline resulted in a fatal accident. Two HMMWVs crossed the AVLB without a problem. However, as the HEMTT attempted to cross, the driver noticed that because of the turn radius and the width of the bridge, he could not make the turn. He made the decision to back up and make a second attempt to line up with the bridge. As he drove onto the bridge, the HEMTT's left-rear wheels slid off, causing the tanker to tumble into a deep gorge and land upside down. The driver only fractured his shoulder, but the assistant driver was killed.

The driver's failure to use a ground guide caused the accident. The day before, a different HEMTT crew completed the same type of mission. It took them four attempts to cross the bridge, but with the use of ground guides, they made it safely. In the Army, we must maneuver equipment in all types of operations, including uploading/downloading equipment on rail cars, lining up for convoys, movement in motor pools and maneuvering on unimproved roads, mountain passes and narrow roads. Ground guiding procedures must be included in your unit's training and used to ensure the personnel and equipment are maneuvered safely.

Keep the following tips in mind when conducting ground-guiding operations:

- Ensure drivers understand they must immediately stop if they lose sight of the ground guide or don't understand a signal.
- Make sure everyone understands the basic signals to control vehicle drivers (don't forget about flashlight signals) from Field Manual 21-60, Visual Signs.
- Position front ground guides to the left front of vehicles. Never allow a ground guide to walk directly in the vehicle's path. Ground guides and drivers must understand this.
- When using two ground guides, they must maintain visual contact with each other. The front ground guide must stop the vehicle if he or she loses sight of the rear ground guide.
- Ensure the ground guide, not the vehicle commander, is in charge of the vehicle. Whenever the vehicle is under the control of a ground guide, the only command the vehicle commander should issue to the driver is "stop."

Efficient vehicle operations and safety of personnel depends on clear, accurate and secured communication among ground Soldiers and through the use of arm and hand signals. For standardized visual signals, check out FM 21-60, GTA 17-02-091 (Visual Signals Armor Fighting Vehicle) and ground guide materials currently posted in Driver's Training Toolbox. Convoy and Ground Materials are also located in the toolbox. Visit https://safety.army.mil/drivertrainingtoolbox for more information.

BY THE NUMBERS

MASTER SGT. JOHN COLLINS
U.S. Army Combat Readiness/Safety Center
Fort Rucker, Ala.

It is amazing how the Army has changed in the 19 years since I reported for basic training at Fort Knox, Ky. I remember going through basic continually doing the same drills that were done step-by-step or by the numbers. That method of training is forever etched in my mind as the way things are done. In talking with junior Soldiers, that method of training is still conducted today. The systematic order of operations ingrained into our daily routines is designed to make all our actions as safe as possible while simultaneously accomplishing the mission. However, in the last 14 months that I have served as the operations noncommissioned officer and an accident investigator at the U.S. Army Combat Readiness/Safety Center, I have seen a trend that is alarming and confusing at the same time.

The trend I'm referring to is accidents involving Soldiers of all ranks and military occupational specialties from different backgrounds making poor decisions. Seemingly, an epidemic of "how to forget" is plaguing the highly trained individuals who survive combat and feel invincible upon their return.

For example, Soldiers receive training on their assigned weapons. We are taught to have muzzle awareness, how to properly clear weapons, not to point weapons at anything we don't intend to shoot and to treat all weapons as if they're loaded. If we, as professionals, are taught to handle weapons properly, why are Soldiers being injured or killed by negligent discharges? Why are we not going by the numbers?

In the motor pool, we're taught to ensure chock blocks are used, along with proper jack stands, when working underneath vehicles. Soldiers receive a brief on safety procedures and how to mitigate risk when conducting maintenance operations. Yet cars are falling on Soldiers working on privately owned vehicles because they weren't properly chocked or supported. Why are we not going by the numbers?

Serving in the aviation community has broadened my knowledge of aviation. I believe aviators and maintainers are the most safety-conscious group of Soldiers serving today. When it comes to aircraft, they are meticulous about every aspect of their machines, both internally and externally. Before they fly, there's always a final walk-around to ensure the outside of the aircraft is visually inspected and there are no foreign objects near the intended path of departure. Yet aircraft are hitting portable fire extinguishers sitting on the parking pads. Did that aviator forget his or her checks? Again, why are we not going by the numbers?

Usually each Friday at the close of business, commanders brief Soldiers on the use of seat belts, tell them to not drink and drive and cover other important issues they should be aware of before they head out for the weekend. Recently, I was part of an investigation where a supposedly strong leader — who trained the Army's future leaders — died in a single-vehicle automobile accident. This senior NCO was intoxicated and not wearing his seat belt at the time of the accident. Each day, this individual instilled values in young Soldiers that will affect the rest of their careers. However, it's evident this Soldier felt the steps taken at work only applied when he was wearing the uniform. Why did he not go by the numbers he instilled in young Soldiers?

It's time we get back to going by the numbers and follow the values impressed upon us as young Soldiers. The only way to get back to the basics is simple. We, as leaders, need to enforce the standards and hold individuals accountable for their actions. Reiterate the importance of the basics at all levels. Most importantly, begin instilling the tenets of safety in your junior Soldiers and put an emphasis on the importance of maintaining these values throughout their careers.

As leaders, don't just talk the talk in front of your Soldiers; live by the numbers even when you think no one is looking. The old saying "Actions speak louder than words" goes a long way on impressionable minds. We are Soldiers 24/7, and we need to live by the numbers to promote a safety-conscious environment for all.

Just like many Army aviators, I've lost friends to helicopter accidents. I'd like to share what happened in one of those accidents so others can learn the hard lessons and correct the way they do business and improve the safety of operations in their units.

STICK TO THE STANDARDS

CHIEF WARRANT OFFICER 3 RACE BAKER
A Company, 1107th Theater Aviation Sustainment Maintenance Group
Missouri Army National Guard
Springfield, Mo.

My friend, Chief Warrant Officer Smith, lost his life in the summer of 2009. The accident investigation identified many root causes and systemic defects. What is truly unfortunate about this accident is another member of the organization, CWO Jones, had brought these deficiencies to the attention of our previous supervisor. When the supervisor failed to take corrective action, Jones went to the next supervisor in the chain of command. Again, no action was taken. It wasn't long after this that the tragic accident occurred. Sadly, this is often the case.

Smith had been promoted to the section supervisor after the previous supervisor retired. He had a true love of flying, dedicated himself to the organization and tried to make it better — largely by listening to the other aviators around him. His loss had a tremendous impact on the organization. With Smith gone, Jones was the only helicopter pilot in the organization and was put in charge of the section.

The loss of the aircraft had shut down the helicopter section. Jones was determined to fix the system defects before the new helicopter arrived to the unit. He went to work immediately. He started with the basics, drafting standing operating procedures based on operations he had previously noted at other locations. He identified training defects and manning shortages and lobbied in the name of aviation safety to have them filled. Using this back-to-basics approach, Jones was able to have programs and policies in place when the new helicopter arrived.

Jones was under extreme pressure to rush the new program; however, he refused to cave in. He demanded everyone to follow the program. He flew missions only when necessary and put training ahead of all else. New pilots and additional aircrew members were hired and placed in the training program. When opportunities came for more efficient operations, Jones made the changes. When unexpected problems were encountered, they were evaluated and appropriate actions were taken. The program continued and was actually ahead of schedule. Pilots received the required training, and aircrew members, in this case tactical flight operators, were developed. No one was flying missions before they were ready.

Fast-forward two years. Another pilot in command, CWO Dixon, had been "raised" through the program. He had been signed-off the previous week and, for his first mission, took the aircraft to a location where it would be a static display. A simple mission, if there is such a thing, in which he could become more comfortable operating the aircraft as PC. The crew was briefed,

another process developed by Jones, and a pilot and the TFO flew the mission. Everything was normal during takeoff and the 30-minute flight, but that was about to change.

During the final approach to landing, the aircraft began to yaw uncontrollably. Dixon immediately identified the problem and maintained his airspeed so he could control the aircraft. He directed the TFO to get out the operator's handbook and go through loss of tail rotor emergency procedures. Dixon notified tower of the emergency, and the airfield began preparations for an aircraft crash. Dixon continued to troubleshoot the problem, but it matched nothing in the handbook. His only course of action was a power-off autorotation. The airfield was prepped, the aircraft entered autorotation and Dixon completed a perfect landing without damage to the aircraft or injury to the crew.

I don't want to take anything away from Dixon's superior airmanship. It was superb; but what I want is leaders to take something away from this whole scenario. Everyone has been in a unit where one guy thinks the sky is falling, but the commander briefs how great his unit is doing. What I would like is to challenge leaders at all levels to determine the true status of your organization. I once had a commander sum it up for me when it came to hearing differing opinions: "The truth lies somewhere in the middle." Recognition of a unit's systemic defects is vital to preserving its fighting capabilities.

> "Recognition of a **UNIT'S SYSTEMIC DEFECTS** is **VITAL** to preserving its **FIGHTING CAPABILITIES.**"

Sometimes an organization is forced to take a step back to move forward. The goal of all leaders should be to recognize the need to reset the unit prior to a tragic accident like the one that occurred in this organization. Set standards and stick to them. Ensure your organization is combat ready with clear, defined and obtainable standards before sending them into combat.

Editor's note: The names of the individuals involved in this incident have been changed to protect their privacy.

I was tired as I sat in class thinking, "I can't wait to get in my bed." I'd woken up at 4:30 that morning to report to work and, as soon as I got off, headed to class. As I tried to pay attention during the four-hour-long class, I kept wishing it would get over early. I had already worked 40 hours that week and it was only Wednesday.

As I hopped into my car after class, I checked my phone and realized I'd missed several calls. I decided to return them immediately because I knew once I arrived home, I wouldn't have time. I popped in my favorite CD, dialed the number to return a call and headed home.

> "I looked around inside the car **THINKING**, "Oh, where is my **PHONE?**" Now, however, I wasn't concerned about returning calls; **I NEEDED TO CALL FOR HELP.**"

MULTITASK equals MAXI-RISK

SAMANTHA MARTIN
Safety, Security and Occupational Health Office
Army Corps of Engineers, New Orleans District
New Orleans, La.

I was traveling 70 mph in the fast lane and talking on the phone when I crested a hill on the interstate. Suddenly, the car in front of me swerved to the right to avoid a stopped vehicle in our lane. Before I could react, I sideswiped the stopped car. Fortunately, I missed the people standing beside the car trying to change a flat. However, I lost control and slammed into a concrete barrier. Everything happened in a matter of seconds. When I finally stopped, the impact of the crash and my air bag deploying managed to bust my lip, fracture my wrist and demolish my car. I looked around inside the car thinking, "Oh, where is my phone?" Now, however, I wasn't concerned about returning calls; I needed to call for help.

We have all juggled in-car distractions. Because of that, we can benefit from developing safer, less distracted driving habits. Driving is a task that needs our undivided attention. Here are some driving distractions we all may be able to relate to:

Physical Driving Distractions

- Eating or drinking
- Cellphones
- Passengers such as small children
- Putting on makeup or shaving
- Adjusting a radio, MP3 player or inserting CDs
- Other cellphone-related operations such as text messaging and voicemail

Mental Driving Distractions

- Fatigue
- Aggression
- In-depth conversations with passengers in the car
- Listening to audio books
- Preoccupation with personal or work-related problems

Safety Tips

- **Cellphones** — Turn off or use only when the vehicle is safely stopped.
- **Eating and drinking** — Avoid eating while on the road. Only eat when your vehicle is safely stopped.
- **Radio, MP3 player and CDs** — Select one station and set the volume level. Preselect CDs for the trip.
- **Fatigue and drowsiness** — Get eight hours of sleep each night. If fatigued on the road, pull over where it is safe and take a nap.
- **Passengers** — Avoid potentially emotional conversations. Properly restrain children.
- **Reading and writing** — Avoid flipping though the map while driving. Only read or write when the vehicle is safely stopped. Review driving directions ahead of time. If needed, make a large-print copy to tape to the dashboard.
- **Makeup or grooming** — Do these things at home or only when the vehicle is safely stopped.
- **Aggression** — Be a courteous driver. Allow plenty of time for commutes so a tight schedule doesn't lead to a short fuse.
- **In-car electronic systems** — Use only when the vehicle is stopped.

For additional useful safety tips concerning distracted driving, visit www.drivingtips.org/distracted-driving.html.

DID YOU KNOW?

According to the Insurance Institute for Highway Safety, motorists are prohibited from talking on a hand-held cellphone while driving in California, Connecticut, Delaware, Maryland, Nevada, New Jersey, New York, Oregon, Washington and West Virginia, as well as the District of Columbia. In addition, texting while driving is banned in 38 states and the District of Columbia. To view the cellphone and texting laws for your state, visit the IIHS website at http://www.iihs.org/laws/cellphonelaws.aspx.

DON'T FORGET THE CHOCK BLOCKS

STAFF SGT. SALVADOR GUTIERREZ
E Company, 1st Battalion, 2nd Aviation Regiment
Fort Carson, Colo.

Several years ago while stationed at Fort Lee, Va., my company rolled out for a routine field training exercise. It was a gloomy, overcast day as my commander and first sergeant led our convoy to Fort Pickett, about 60 miles away. As we occupied a bivouac area, we were focused on the mission and unaware that as the FTX progressed, an easily preventable incident would snowball into a near catastrophe for our unit.

We began staging/parking our vehicles and equipment in a designated area, which happened to be located on a hill next to a cliff. We were instructed to park the vehicles and equipment facing the road (combat parking) and reminded to use chock blocks to prevent them from sliding down the hill.

The next morning, we received safety briefings from our first-line supervisor and team leader. We then began installing an Inland Petroleum Distribution System — a rapid deployment, general support, bulk fuel storage and pipeline system designed to move bulk fuel forward. That afternoon, dark clouds filled the sky and it started to rain, so our company commander decided to stop the mission. As soon as everyone got back in the bivouac area, we parked the equipment. The rain continued throughout the night.

Early the next morning, everyone got up and went about their business. After I grabbed some breakfast, I went back to my tent to get gloves and a CamelBak for the day's mission. Along the way, I ran into one of my Soldiers, Spc. Mills. As we were chatting, we happened to be looking at the vehicle/equipment parking area. We couldn't believe our eyes … both Mills and I watched as a 30k forklift started to roll backward. Mills yelled, "Look, sergeant, that forklift is heading off the cliff!"

Instinctively, we sprang into action. I was about two steps behind Mills when she got a grip on the forklift's door. As soon as she opened it, she dived inside the cab and tried to engage the brake. While I was holding her feet, she exclaimed, "Sergeant, the brake isn't working!" I told her to hang on and let go of her feet. I ran to the nearest parked vehicle — 5-ton truck — and took its chock blocks and hurried back to the forklift. I put the first chock block behind the left-rear tire and told Mills to turn the forklift wheel to the left to prevent it from sliding. Once Mills turned the wheel, the forklift started to slow down. I put the other chock block behind the right-front wheel, which did the trick. With tragedy averted, the commander and first sergeant immediately changed the location of the parking area and briefed the company on the importance of safety, especially the use of chock blocks.

Several factors contributed to this incident, and we were fortunate no one was injured or, even worse, killed. Indiscipline was a big factor; the forklift didn't have any chock blocks even after we were briefed at the beginning of the exercise to use them. Materiel failure also played a part, as the emergency brake wasn't working. In addition, the parking area wasn't in an ideal location, and the rain-soaked ground didn't help matters any.

As leaders, it's important we check and recheck not only ourselves, but our Soldiers too. Soldiers do what is checked. If Leaders let the standards slip, can we hold our Soldiers accountable?«

FYI

In addition to possessing specific skills to operate tactical equipment, operators must also know how to properly park vehicles, use proper-sized chock blocks and conduct preventive maintenance checks and services. Army Regulation 385-10, The Army Safety Program, states Army motor vehicles, except nontactical vehicles, are required to be equipped with properly sized chock blocks for use when parked on sloping terrain, while maintenance is being performed or when a vehicle is parked and a trailer is attached. To access equipment technical manuals, training guides for material handling equipment and a copy of AR 385-10, visit the Driver's Training Toolbox at https://safety.army.mil/drivertrainingtoolbox. An AKO login is required.

Decisions, Decisions

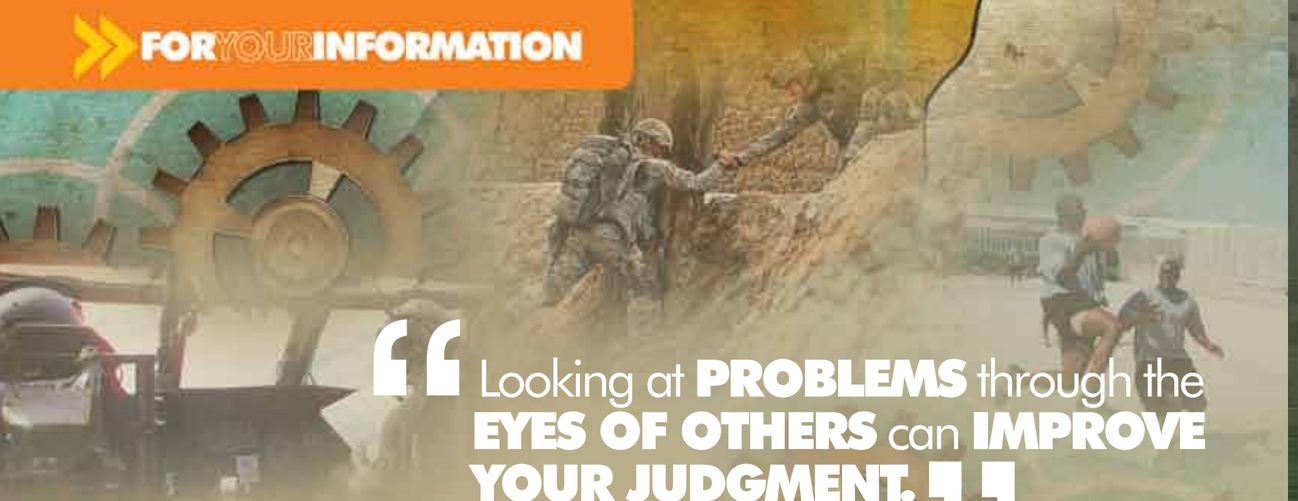
PETER ZIMMERMAN AND JENNIFER S. LERNER
Harvard University
Cambridge, Mass.

Do emotions influence your decision-making? Should they? Do they mislead or convey important information and aid your decision-making? The answer to all these questions is "Yes."

In January 2003, the space shuttle Columbia lifted off from Cape Canaveral, Fla., with seven astronauts on board. Eighty-one seconds into flight, a piece of foam insulation fell from the external tank that fueled the main engine. Cameras recorded the foam striking Columbia on its left wing. Foam had struck the spacecraft on prior flights but never caused much damage. Some engineers were alarmed by this latest incident, but senior NASA managers were reluctant to check for damage. To do so, they would have had to track down satellite imagery from other agencies or improvise a space walk. Neither approach was attractive. More troubling, officials seemed unwilling or unable to face the possibility of serious damage. "I don't think there is much we can do about it," said one senior manager.

The damage wasn't detected until Columbia re-entered Earth's atmosphere 15 days later. As sensors sent erratic, confusing data, the shuttle lost control, broke apart and plunged to Earth, tragically ending the lives of its crew. The investigations that followed the disaster cited many failures, from technical problems to flaws in NASA's organization and culture. Investigators identified numerous opportunities in which management decisions could have led to an assessment of the damage. Decisions based on emotion and assumptions sealed Columbia's fate.

Longtime decision-making models assume people base decisions on evidence and rational analysis of alternatives, including attendant risks and uncertainties. But scientific discoveries about the brain undercut that basic assumption. Research shows the model of rational, self-aware decision-making rarely plays out in the real world. To begin with, most human cognition is unconscious. People absorb millions of bits of data per second through the senses and then compress, screen and process this data automatically through shortcuts in the brain. Neuroscience breakthroughs show the brain's emotional pathways engage more rapidly than



> "Looking at **PROBLEMS** through the **EYES OF OTHERS** can **IMPROVE YOUR JUDGMENT.**"

cognitive pathways. Consequently, the emotional centers of the brain influence what people see, hear and feel in response to an event or task well before they experience a conscious thought. What emerges in conscious awareness are snap judgments, instant recognition, intuitions and feelings of certainty that can't be fully explained. Though wondrously efficient, these processes generate biases that can result in errors.

Two types of emotion influence decision-making: integral emotions arise from the situation at hand, while incidental emotions carry over from past events. Integral emotions are legitimate decision inputs. Your brain is sending you an alert. In the Columbia case, the apprehension, alarm, even fear many NASA engineers felt were integral to judgments about safety. No one knew where foam had struck Columbia or with what effect, and the engineers wanted to find out. Incidental emotions can be misleading.

Top NASA managers harked back to past incidents of foam strikes that caused little damage. They drew false comfort from the past, diverting their attention from the situation at hand and the risk to Columbia and its crew. Their failure to recognize and act on integral emotions helped seal Columbia's fate.

Here are some ways managers can recognize and deal with their emotions when it's decision time.

- **Diagnose your feelings.** A common mistake among experienced executives is to assume the types of decision-making errors seen in the Columbia case don't affect them. Yet countless studies conducted in the Harvard Decision Science Laboratory reveal incidental emotions affect everyone, whether or not they're aware of them. Any situation can trigger cognitive and emotional biases that spill over into current experience. Probe whether your emotions are integral or incidental and whether they are appropriate.

- **Consider other perspectives.** Consultants, advisers and confidantes can help you identify how your personal history and the situations you encounter are likely to bias your thinking. Education and training also can help. When asked what prepared him for leadership in Iraq as head of U.S. Central Command, Army Gen. David Petraeus cited the diverse perspectives he encountered in civilian graduate school. Looking at problems through the eyes of others can improve your judgment.

- **Treat each situation as unique.** Our minds are hard-wired to assume the past reliably predicts the future. In fact, the neural pathways associated with prediction mirror those associated with memory. This explains why NASA managers felt comfortable with their decision based on incidents that turned out fine. If they instead had categorized earlier foam losses as near misses worthy of investigation, rather than as successes, catastrophe might have been averted.

Emotions can lead you astray, but they are time-tested evolutionary adaptations to universal life challenges. Rather than writing off your fears, investigate them fully and carefully weigh their role in your decisions.

Editor's note: This article was reprinted with permission from the authors.

The Hard, Right Choice

CHIEF WARRANT OFFICER 4 HUGH BOUCHELLE
Battalion Safety
National Capital Region, Information Operations Command
Adelphi, Md.

As the wind whipped by at 155 mph, I noticed two things. First, the Porsche I was racing had finally dropped off — not even he was this crazy. Second, with the turbo kicked in full-bore to hold this speed, I could actually see the needle on my motorcycle's gas gauge dropping. I backed it down and took the next exit as the Porsche screamed past and the driver waved.

It was 1986 and I was, at least in my mind, a hotshot military pilot. My buddy and I had bought sport bikes and spent our free time tearing up the German countryside, doing wheelies at 60 mph and racing fast cars on the autobahn.

We flew hard and played harder, and I never worried about what my wife and four children would do without me. After all, I was invincible — even though friends kept saying my motorcycle was going to get me killed.

Less than a year later, I was back at Fort Rucker, Ala.

"Want to take it for a ride?" said the Soldier selling a 750 Honda sport bike.

"Sure," I responded in an even, steady voice. This was no time to let him see how eager I was to get this screamer on the road. I had just returned from Germany and was assigned to the flight school as a training and counseling officer. I had left my bike in Germany because it was illegal in the states and, as a result, hadn't ridden in months.

As I mounted the bike, the kids gathered around to look at daddy's potential new toy. My wife stood off under the carport, arms crossed. She saw it in my eyes — the decision to buy had already been made.

The engine roared to life and I carefully pulled out of the driveway and headed out of military housing toward the road leading to Lowe Army Airfield. It was a quiet two-mile stretch of curvy country two-lane I had been longing to try out on a fast bike. Within seconds of turning onto it, I was at 110 mph.

I don't know if it was coincidence or the sound of a sport bike in full-throated roar that attracted the military police. However, just as I turned near the entrance to the airfield and was about to pour on the power again, I spotted a patrol car rounding the corner and heading my way. I eased it down and smiled at them as they drove past, trying to stare a hole through my dark-tinted helmet visor. They knew.

That was a close one. A reckless driving charge could have cost me my license and maybe even my career, as the Army was starting to come down hard on stuff like this. I began to think about other close calls I'd had. There was the time I barely missed a Mercedes that pulled in front of me in Nuremberg, or the time I laid down my bike when I braked too hard trying to round a curve on a rain-slicked road. My helmet and leathers saved me that day.

I thought about my wife and children. My oldest son was playing sports now and my daughter was turning into a beauty; they needed Dad in their lives. I even thought about my flight school Soldiers. Who would keep them in line?

As I pulled into the driveway, the kids stopped playing and ran toward the bike. My wife remained on the porch leaning against the support pole, arms still crossed. The Soldier selling the bike, confident of the sale, walked up.

"So, what did you think?" he asked.

"Great bike," I responded, as I dropped the keys into his outstretched hand. "But sorry, no sale. This thing will get me killed."

My wife stood up straight from where she had been leaning against the pole. The kids fell silent as I walked into the house, not looking back.

More than 25 years later, I'm still flying and playing hard. Luckily for me, I learned early on when challenging myself and just being stupid needed to take separate roads. That day, I made the right choice that my Family came before my fun. While rocketing down the road on a fast bike gives a few moments thrill, the joy of watching your children grow up lasts a lifetime.

> "**THAT WAS A CLOSE ONE.** A reckless driving charge could have **COST ME MY LICENSE** and maybe even my **CAREER**, as the Army was **STARTING TO COME DOWN HARD** on stuff like this."

LOST

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

AVIATION

AH-64D

CLASS A

- The aircraft was at a 25- to 40-foot hover when the crew experienced loss of lift during a soft-pedal turn. The aircraft impacted the ground and the main rotor system struck the canopy, injuring the front-seat pilot. The aircraft was destroyed.

CLASS B

- The aircraft contacted and severed a Persistent Ground Surveillance System aerostat tether as the crew was flying security over a combat outpost under forward-looking infrared radar. The sister ship observed the suspected strike, although the aircraft crew detected nothing. Damage to the No. 2 main rotor blade tip cap found on postflight inspection confirmed contact.

OH-58A

CLASS C

- During a demonstrated autorotation, the aircraft experienced an N2 spike (113 percent) at 200 feet above ground level.

OH-58D(R)

CLASS C

- The aircraft experienced an NP exceedance (124 percent/8 seconds) while in Full Authority Digital Engine Control manual mode at 100 percent RPM during engine run-up.

UH-60A

CLASS C

- A postflight inspection revealed damage to all four MRBs due to contact with the Blue Force Tracker antenna during night roll-on landing training.

- The aircraft landed on rocks in snow-covered terrain during night vision goggle training. The aircraft was released for return flight to the Army Aviation Support Facility, where damage was found on the undercarriage.

UH-60L

CLASS C

- During landing at a training site, a landing marker was ingested into the MRS. Two MRBs were damaged.

- The aircraft was being run-up for a high-speed shaft balance check as part of post-phase maintenance when the crew experienced caution readings and noise from the No. 1 engine. The initial indication was failure of the No. 1 input module, resulting in further damage to the horizontal stores support sleeve and gimbal seal.

- The aircraft was in the process of a hot-refuel when the clip separated from the grounding cable during handling and blew into the MRS. One MRB required replacement.

UAS

MQ-1B

CLASS A

- The unmanned aircraft exhibited low oil temperature and pressure indications, accompanied by manifold temperature spikes. The crew lost link as the UA was returning to base.

GROUND

ACV

CLASS A

- A Soldier was killed when the Mine Resistant Ambush Protected vehicle he was ground guiding struck him. The Soldier was attempting to reach a local national child that had ducked under the MRAP.

AMV

CLASS A

- A Soldier died when the Light Medium Tactical Vehicle she was ground guiding struck her.

Personnel Injury

CLASS A

- A Soldier was killed when the 40 mm round he was handling detonated. Six other Soldiers were seriously injured in the blast.

- A Soldier died from blast injuries while training with the Anti-Tank 4 weapon system.

DRIVING

POV

CLASS A

- Three Soldiers were returning to post when the driver swerved to avoid an animal. One of the Soldiers was killed when he was ejected as the vehicle overturned.

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

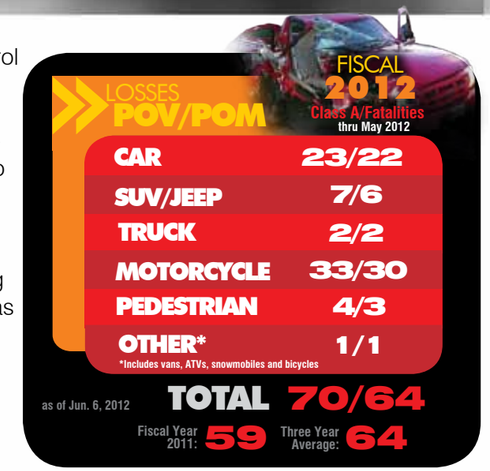
- A Soldier was killed in a hit-and-run after exiting a vehicle to help another Soldier involved in a minor motorcycle accident.

- Two Soldiers were walking along a highway at night when one was struck and killed by a vehicle driven by another Soldier.

CLASS C

- A Soldier was injured when he was rear-ended by a texting driver.

- Two Soldiers were injured when they struck a tractor-trailer they were attempting to pass. The Soldiers' vehicle spun off the road, struck a ditch and overturned.



POM

CLASS C

- A Soldier was injured when he ran off the road to avoid being struck by an oncoming vehicle that entered his lane.

BE A SMART SOLDIER

Be **SMART** – protect yourself and those around you.
When in a car, ensure everyone wears their seat belt.
Learn more at https://safety.army.mil.

WEAR YOUR SEAT BELT

U.S. ARMY
ARMY STRONG.

U.S. ARMY COMBAT READINESS/SAFETY CENTER

ARMY SAFE IS ARMY STRONG

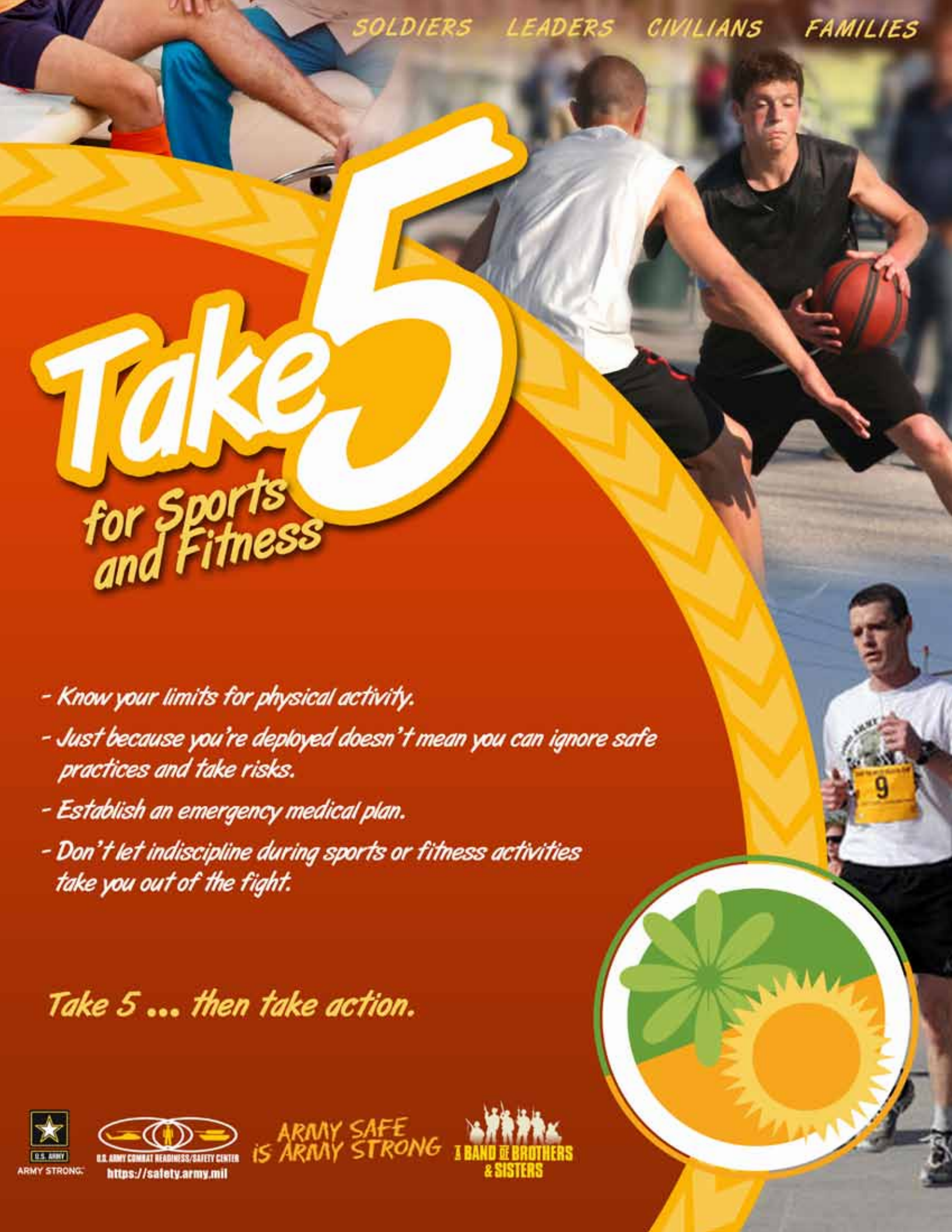
A BAND OF BROTHERS & SISTERS

SMART

SAFE
MATURE
ACCOUNTABLE
RELIABLE
TRUSTWORTHY

SOLDIERS LEADERS CIVILIANS FAMILIES

Take 5 for Sports and Fitness



- Know your limits for physical activity.
- Just because you're deployed doesn't mean you can ignore safe practices and take risks.
- Establish an emergency medical plan.
- Don't let indiscipline during sports or fitness activities take you out of the fight.

Take 5 ... then take action.

U.S. ARMY
ARMY STRONG.

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

ARMY SAFE IS ARMY STRONG

A BAND OF BROTHERS & SISTERS