

# KNOWLEDGE

VOL 4 APRIL 2010

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

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ARMY STRONG.



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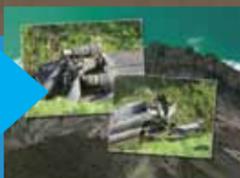


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U.S. ARMY COMBAT READINESS/SAFETY CENTER

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Brig. Gen. William T. Wolf Commander/Director of Army Safety

Command Sgt. Maj. Michael P. Eyer Command Sergeant Major

JT Coleman Acting Director, Strategic Communication

Chris Frazier Managing Editor

Bob Van Elsberg Editor

Paula Allman Editor

Blake Grantham Graphic Design

Taryn Gillespie Graphic Design

Leslie Cox Graphic Design (CinetiQ)

Kami Lisenby Graphic Design (CinetiQ)

**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 e-mail comments to [safe.knowledge@conus.army.mil](mailto:safe.knowledge@conus.army.mil).

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# PLAYING IT SAFE

**B**y now, the weather is finally nice enough for many of us to shed our layers of winter clothing and head outdoors for some eagerly awaited sunshine. As you embrace all the fun spring and summer can bring, whether it's lounging by the pool or hitting the open road for the season's first motorcycle ride, I ask that you keep risk management in mind and "Play It Safe."

These days, our Soldiers are working hard and often playing harder. Our men and women in uniform are releasing stress and filling off-duty hours with activities like rock climbing, motorcycle riding, road trips and sports. All these great events are perfect opportunities to create lasting memories with friends and Family but, without proper planning and risk management, have the potential to cause serious trouble for our Army team.

Historically, our off-duty fatality rates inevitably increase from April to September. In fiscal 2009, almost

40 percent of our fatal accidents occurred during this timeframe, with privately owned vehicle (POV) and motorcycle accidents leading the way every month. We don't like to see these statistics, and the U.S. Army Combat Readiness/Safety Center team stands ready to help our Total Army Family bring these numbers down.

April 1 marks the official launch of our 2010 Safe Summer Campaign, and we need each of you to Play It Safe in everything you do these next few months. This year's campaign is packed with information and interactive multimedia you can use to build a personalized safety program tailored to your unit's needs. Campaign products, including feature articles, posters and public service announcements covering more than 20 summer safety topics, are all available via the "Campaign Corner" at <https://safety.army.mil>.

Our Army achieved some impressive milestones during last year's campaign, including our first accident- and fatality-free Memorial Day weekend in more than 20 years. I'm proud of this outstanding effort, but to make this our safest summer yet, we need to look at the lessons learned from last year's accidents. Several are particularly disconcerting, but they provide important talking points our Leaders, Families and peers can use as they engage with their Soldiers on off-duty risks.

One of last summer's earliest motorcycle fatalities involved a 26-year-old sergeant who lost control of his newly purchased motorcycle on a curve. The Soldier locked the bike's front brake as he attempted to regain control, causing the rear wheel to lift off the ground. He was thrown from the motorcycle with such force that his helmet came off, completely exposing his head to the asphalt roadway.

This accident highlights a crucial problem we've had with motorcycles over the past few years: Leader indiscipline. Not only was the Soldier involved a Leader, he bought the motorcycle from another sergeant within the unit. The Soldier was also dangerously inexperienced; he received his motorcycle learner's permit the day he died, and he hadn't attended the mandatory Basic RiderCourse. Since neither Soldier reported the sale of the bike to the chain of command, there was no higher-level intervention that might have saved this young sergeant's life. Both were Leaders and both knew better, but neither played it safe.

As dramatic as most POV and motorcycle accidents are, we can't forget about other activities that have historically been problem areas during the warmer months. We lost three Soldiers to drowning between April and September last year, all on fresh water lakes or rivers. Another three Soldiers died in off-duty negligent

FROM THE DASAF

Our **ARMY** achieved some impressive **MILESTONES** during **LAST YEAR'S** campaign, including our first accident- and fatality-free **MEMORIAL DAY WEEKEND** in more than **20 YEARS.**



discharge accidents, all involving privately owned weapons and occurring in the late evening or early morning hours. There was also a smattering of other accidents that, while isolated, all resulted in a Soldier's untimely death. These incidents included a sport parachuting accident, a fall from a moving vehicle and a bicycle collision.

This diverse collection of accidents proves all of us — Leaders, Families, civilians and peers — must put our ears to the ground and listen to what our Soldiers are saying. Plans don't happen in a vacuum, and chances are many of your Soldiers are talking about their off-duty lives while they're at work. It's up to us to help them Play It Safe by giving them the tools they need to succeed not only this spring and summer, but every day of the year.

Thank you for what you do every day for our Band of Brothers and Sisters. Enjoy the weather, but remember to Play It Safe!

**Army Safe is Army Strong!**

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

# BEAT the HEAT

**F**rom the first day of our military careers, the Army has stressed the importance of preventing serious heat illnesses. Despite these warnings, hundreds of Soldiers still suffer from heat illnesses each year.

In 2008 alone, there were 299 hospitalizations for heat stroke and 1,467 hospitalizations for heat injury/exhaustion. In addition, over the past 20 years, the incidence of heat stroke in the Army has increased sevenfold.

## What Can Leaders Do?

There are several preventive measures Leaders can take to reduce the risk of serious heat illness in their Soldiers. For example, training schedules should be arranged so the most physically strenuous activities take place in the early morning, not during the hottest part of the day. Likewise, strenuous activities should not be scheduled back-to-back. There is a cumulative effect of repetitive days of training in warm or

hot conditions; therefore, Leaders might also need to modify training based on the prior day's weather and the Soldier's activity level.

A Soldier's physical activity intensity and clothing/equipment might also need to be adjusted for the weather conditions. Altering clothing and equipment guidelines, such as unblousing boots and exchanging Kevlar helmets for patrol caps, can help a Soldier stay cool. In addition, Leaders should consider changing the order of training events and providing cooling stations between them.

When a Soldier suffers a heat-related injury, the unit's Leaders need to watch their other Soldiers for symptoms of heat injuries. Often the

first Soldier to succumb is a warning that others might follow. Leaders should also be aware of the overall health of their Soldiers, and Soldiers need to communicate health concerns to their superiors. Prior exertional heat injury and certain chronic conditions or medications can increase a Soldier's risk of becoming a heat casualty, so Soldiers should share this information with Leaders.

## What Can Soldiers Do?

The prevention of heat casualties is not just a Leader's responsibility. The individual Soldier has an obligation to do what he or she can to mitigate the risk, and that starts with taking care of their bodies. A male Soldier who is out of shape, as indicated by a two-mile run time greater than 16 minutes, is at three times the risk of suffering an exertional heat injury — as is a Soldier who is overweight. A Soldier who is both out of shape and overweight is at eight times the risk of suffering

an exertional heat injury. Preparing for the heat starts with a year-round approach to maintaining physical fitness and a healthy body weight.

Acclimating to the heat is also critical to preventing heat injuries. An acclimated Soldier's body temperature during activity is lower and sweating begins sooner and at a higher rate. This improves heat loss. Complete heat acclimation requires up to two weeks of daily progressive heat exposure and physical exercise for at least 100 minutes per day. A highly fit Soldier is already partially heat acclimated and acclimates faster than a less-fit Soldier, which is another reason they should maintain a high level of physical fitness. Take note that acclimation begins to degrade with lack of exposure to the heat in as little as one week.

## Proper Hydration

The more a Soldier sweats, the more fluids he needs to maintain proper hydration. Dehydration negates many of the

**CAPT. DAVID DEGROOT, PH.D.**  
U.S. Army Research Institute of Environmental Medicine  
Natick, Mass.

**MAJ. ROBERT CARTER, PH.D., MPH**  
Office of the Assistant Secretary of the Army for  
Acquisition, Science and Technology  
Medical Systems Directorate  
Arlington, Va.

## FYI

Additional information on heat injury prevention can be found on the U.S. Army Institute of Environmental Medicine Web site at <http://www.usariem.army.mil/pages/downloads.htm> and the U.S. Army Center for Health Promotion and Preventive Medicine's heat injury prevention page at <http://chppm-www.apgea.army.mil/heat/>.



advantages gained through being fit and acclimated to the heat, reducing physical work capacity and increasing body temperature and the risk of becoming a heat casualty. Proper hydration should not only occur during training, but also continue throughout the day so the Soldier starts the next training day properly hydrated. (Editor's note: For more information on proper hydration, see the article "Get to Know H<sub>2</sub>O" on page 8.)

**Heat Illness Treatment**

If a Soldier suffers a serious heat illness, cooling the body rapidly is of paramount importance.

While dehydration can contribute to heat stroke incidence, replacing fluids is secondary to cooling a heat stroke victim. Wrap iced sheets (bed sheets soaked and stored in ice water) around a hyperthermic Soldier to provide rapid cooling in the field. This can reduce heat stroke mortality from 50 to 5 percent.

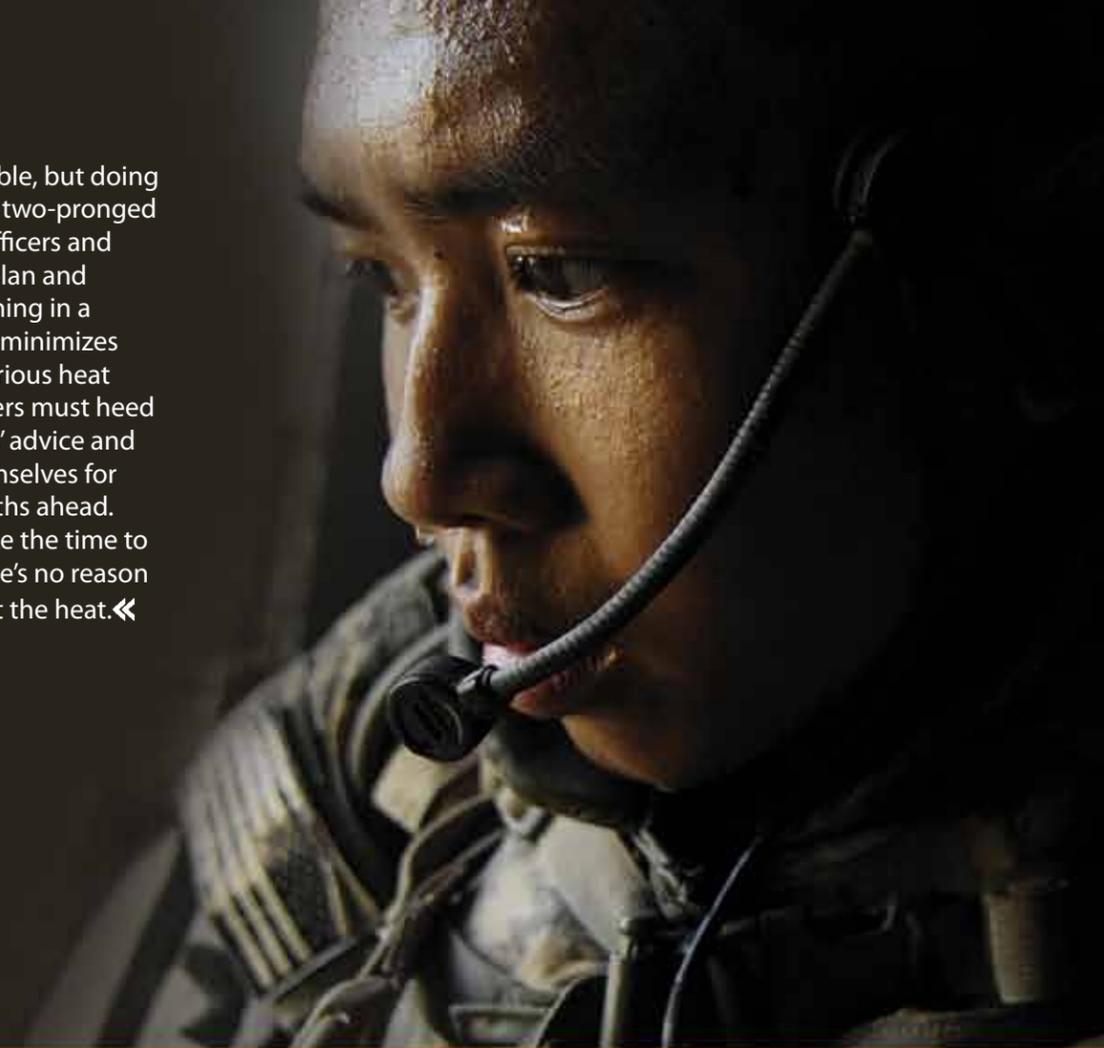
Personnel at the U.S. Army Research Institute of Environmental Medicine (USARIEM) are actively engaged in developing new preventive measures to mitigate heat stress for the Soldier. By their very nature, certain training events could increase a Soldier's risk of hyperthermia, so an

efficient and practical cooling method is necessary. USARIEM is developing an Arm Immersion Cooling System (AICS), which is designed to provide rapid cooling during rest breaks or after training events where heat stress is high. The AICS can help reduce body temperature by 1 to 2 F in 8 to 10 minutes and accommodate up to six Soldiers at a time. This can be used as part of an integrated composite risk management approach to reducing the incidence and severity of heat illnesses throughout the military.

**Conclusion**

Serious heat illnesses

are preventable, but doing so requires a two-pronged approach. Officers and NCOs must plan and conduct training in a manner that minimizes the risk of serious heat illness. Soldiers must heed their Leaders' advice and prepare themselves for the hot months ahead. When we take the time to prepare, there's no reason we can't beat the heat.◀



# MANAGE THE HEAT

Use composite risk management to reduce heat casualties in your formation.



**1. Identify hazards: HEAT**

- High heat category.
- Exertion level of activity.
- Acclimatization (don't forget altitude).
- Time (length of activity and time of day).

**2. Assess hazards**

- Ambient temperatures (i.e., a heat category assessment using wet bulb globe temperature should be conducted

and adjusted for temperature variance).

- Know your Soldiers (e.g., their hydration status, risk factors or certain medications that might increase risk).

**3. Develop controls**

- Education: Establish standing operating procedures (SOPs) and train as you'll fight.
- Planning: Develop a plan to have ample

hydration sources available based on activity levels and provide rest cycles as needed.

- Identification: Identify and note previous heat casualties along with current illnesses.
- Develop a hydration monitoring system. Use current guidelines; Soldiers should hydrate continuously to produce urine that's clear to very light yellow in color.

**4. Implement controls**

- Ensure risk decisions are made at the appropriate level.

- Enforce and monitor the hydration standard.
- Execute random checks.
- Follow clothing and equipment recommendations.

**5. Supervise and evaluate**

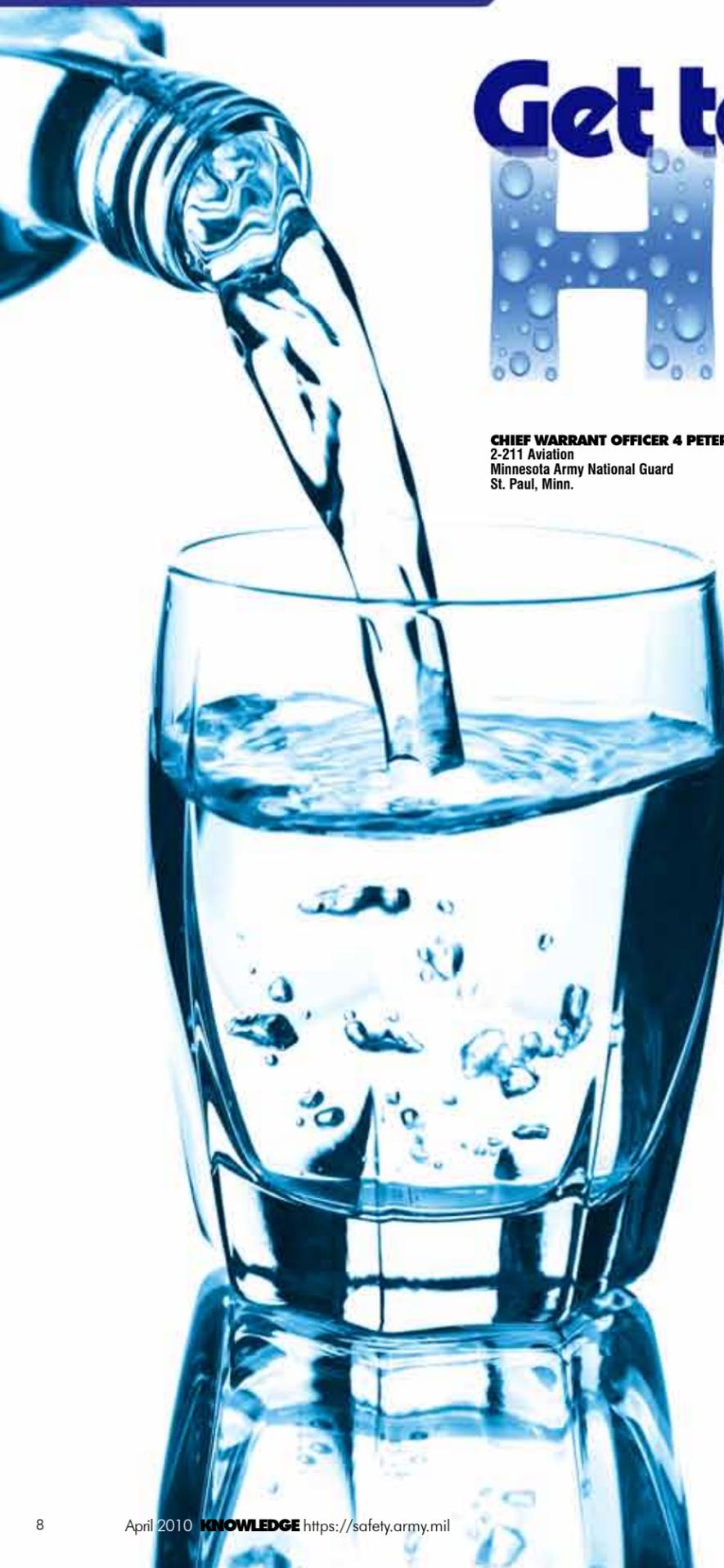
- Enforce SOPs through constant monitoring and frequent walk-throughs.
- Conduct spot checks.
- Develop contingency plans for injuries that might occur despite preventive measures.
- Continually re-evaluate the situation and adjust controls as needed.

LEADERS SOLDIERS FAMILIES

# PLAY IT SAFE

SAFE SUMMER

GO TO  
[HTTPS://SAFETY.ARMY.MIL](https://safety.army.mil)  
FOR MORE INFORMATION



# Get to Know H<sub>2</sub>O

**CHIEF WARRANT OFFICER 4 PETER PANOS**  
2-211 Aviation  
Minnesota Army National Guard  
St. Paul, Minn.

**A**s we prepared to deploy to Iraq, my brigade was inundated with information stressing the importance of proper hydration. None of us wanted to be a noncombat casualty and, thereby, a hindrance to our fellow Soldiers and the mission, so we all took the message to heart. During our six-month train-up, not one Soldier succumbed to dehydration. That would soon change.

We deployed to Iraq at the beginning of summer and, within 30 days, had 50 heat casualties. During that first month, not one day passed without Leaders insisting we stay hydrated. We had an abundant supply of non-caffeinated fluids to choose from, so what went wrong?

**Why Hydrate?**  
The human body is made up of about 60 to 70 percent water. Blood is mostly water, and your muscles, lungs and brain all contain a lot of water. We need water to regulate

body temperature and provide the means for nutrients to travel to our organs. Water also transports oxygen to cells, removes waste and protects joints and organs. Therefore, allowing your body to become dehydrated has a more profound effect on your overall health than just causing thirst or a headache.

We lose water through urination and by sweating. If you're very active, you lose more water than if you're sedentary. Diuretics such as caffeine pills and alcohol result in the need to increase our fluid intake because they trick the body into thinking we have more water than we need.

Symptoms of mild dehydration include chronic pains in joints and muscles, lower back pain, headaches and constipation. A strong odor to your urine, along with a yellow or amber color, indicates you might not be getting enough water. Thirst is an obvious sign of dehydration. However, you need water long before you feel thirsty.

**What's Your Daily Need?**  
So how much water or fluids do we need to take in each day? According to the U.S. Army Center for Health Promotion and Preventive Medicine, a good rule of thumb is to drink at least eight to 10 cups of water per day at regular intervals. Ten to 12 cups is even better. In extreme climates, such as the desert, you'll need even more water to prevent dehydration. In addition, if you exercise, you should further increase your daily water intake. And if you drink alcohol, you should consume at least an equal amount of water to counter its dehydrating effects. As you can see, your daily need for fluids can add up to quite a lot.

If we eat a healthy diet, we can get as much as 20 percent of our fluid requirements from foods. The rest should come from the beverages we drink. Of course, water is the best choice. Sodas have a lot of sugar and most are caffeinated. Drinking soda may also

cause us to take in unnecessary calories, while the diuretic effect will actually cause you to need more fluids. For coffee drinkers, decaf is the best choice if you don't need the caffeine to help stay alert.

Sports drinks containing electrolytes, such as Gatorade or PowerAid, may be beneficial. Just ensure you look out for added sugar and calories your body doesn't need. Juices are also good because they have vitamins and nutrients. If you're like me, plain water isn't very satisfying. I add raspberry, orange or lemon flavoring to my water, which makes consuming

large amounts tolerable.

**Conclusion**  
You might find it difficult to drink enough fluids every day. But if you make it a habit (do something for eight straight days and it will become a habit) to have a water bottle handy when you're working, traveling or exercising, you will avoid the headaches, vomiting, cramping and embarrassment of being a heat casualty.◀

## TOO MUCH OF A GOOD THING?

Just as Soldiers can suffer a heat injury by not drinking enough fluids, they can also drink too much. Hyponatremia is a condition where the sodium concentration in human blood is lower than normal. Causes include overhydration, skipping meals or dieting, loss of body salt or misdiagnosis and treatment for dehydration.

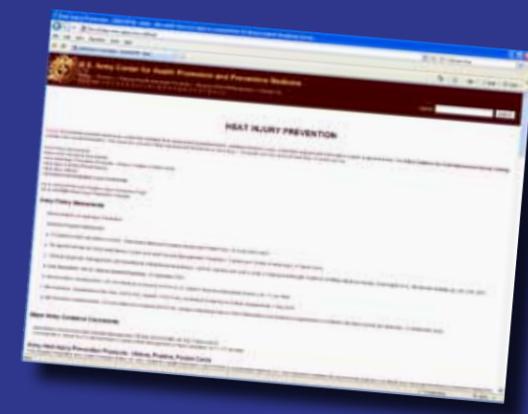
Those suffering from hyponatremia can exhibit symptoms such as confusion, weakness, nausea or vomiting. If you suspect a Soldier is suffering from hyponatremia, help replace salt loss and follow the measures for heat exhaustion. If symptoms persist or become more severe, evacuate the Soldier to a medical facility.

To prevent hyponatremia:

- Follow fluid replacement guidelines.

- Replace lost salt by consuming meals and sports drinks as directed.
- Provide snacks or carbohydrate electrolyte beverages during long training events.
- Don't take dietary supplements.

For more information, posters and tip cards about proper hydration, visit the U.S. Army Center for Health Promotion and Preventive Medicine Web site at <http://chppm-www.apgea.army.mil/>.



# Catching Air at Irwin

**STEVE KURTIK**  
QinetiQ North America  
U.S. Army Combat Readiness/Safety Center  
Fort Rucker, Ala.

I have ridden motocross and off-road motorcycles for 35 years and still get the same thrill from banging gears, busting berms and catching air as when I started. Some Army installations recognize many Soldiers have the same desire to push themselves and their bikes to the limit on a track or trail. Fort Irwin, Calif., is one of those posts and has provided an off-road vehicle (ORV) park where riders can fulfill this desire.



“The **BENEFIT** of having an **AREA** like this on an **INSTALLATION** is that it **PROVIDES** Soldiers and Families a **SAFE** and **CONTROLLED** environment to **DEVELOP** off-road riding **EXPERIENCE** and spend **QUALITY** off-duty **TIME** together. It also provides experienced **RIDERS** the **OPPORTUNITY** to **MENTOR** less experienced **RIDERS.**”

The ORV park is located near the main gate on NASA Road and has been in existence for several years. The track was built following an accident in August 2002 when a Soldier died after crashing his motorcycle in the desert and was not found until the next day.

According to Kimberly Schmidt, Fort Irwin garrison safety director, “The track was located on Fort Irwin to preclude any further accidents such as the one in 2002. A phone located at the track and a mandatory buddy ride system was put in place to ensure an

accident like this never happens again.”

I had heard from many of my friends and co-workers about the track, but I never had the opportunity to see it. As I approached the gate, I had a huge urge to ride. I was immediately impressed with the layout of the course and its close proximity to main post. A professional motocrosser designed the main track, and he definitely knew what he was doing. A mixture of table-top jumps and doubles were well placed

throughout the course. Many of the turns were stadium-style berms that connected the switchback straightaways with plenty of room to maneuver on the 20-foot-wide track. It’s the desert, so a mixture of hard-packed and loose sand made up the track surface.

Adjacent to the full-size track is a well-designed peewee track with small rolling mounds with low berms for the youngsters to negotiate. This small C-shaped track is a great place for the next motocross

or all-terrain vehicle (ATV) star to learn and practice their riding skills or just putt around under mom's and dad's supervision.

The third track is a little more forgiving than the full-size motocross track and is better suited for ATVs. The ATV track also has some jumps and bermed turns, but not as many switchbacks as the main track. The tracks are co-located adjacent to the ATV/dirt bike course training area and cover about seven acres of the ORV park. If riding

on a closed course doesn't fulfill your off-road needs, you can use the remaining unimproved 75 acres to test your riding ability. The entire area is fenced and secured when not in use.

According to Fort Irwin Outdoor Recreation, the ORV park is used primarily during the late September to mid-April time frame. The reason usage increases during those months is "tolerable temperatures." Only the hardcore riders will use the track in the summer months, when

temperatures are well above 100 F.

Fort Irwin is one of the few posts that provides an off-road riding area on the installation. To my knowledge, the only other installations that have off-road riding areas on post are Fort Riley, Kan., and Fort Hood, Texas. If there are more, please let us know.

The benefit of having an area like this on an installation is that it provides Soldiers and Families a safe and controlled environment to develop off-road riding experience and spend quality off-duty time together. It also provides experienced riders the opportunity to mentor less experienced riders.

There are many safe areas where Soldiers can ride off-road, and some that probably are not. Since fiscal 2005, there have been 106 ATV accidents reported, resulting in 16 fatalities. There have also been 45 dirt bike accidents reported, with one fatality, for the same period. Many of these accidents occurred at places other than an approved riding area. Providing an area to ride on post will help ensure riders are operating their off-road machines in a safe environment.

If your installation is considering establishing a riding area such as the one at Fort Irwin, contact the U.S. Army Combat Readiness/Safety Center Driving Task Force at [drivingtaskforce@conus.army.mil](mailto:drivingtaskforce@conus.army.mil) or (334) 255-2892. Be safe, have fun and get dirty!◀◀



▲Track 1

## ► FYI

**Before you can ride at the Fort Irwin Off-Road Vehicle (ORV) Park, you must complete an ATV/dirt bike rider's course. The course is conducted at the ORV park and registering is easy. Contact the Fort Irwin Installation Safety Office to enroll.**

**After you've completed the course, contact the Fort Irwin Outdoor Recreation office to obtain your ORV card. There is a large off-road riding population at Fort Irwin. Currently, 277 riders are registered and authorized to ride at the ORV park.**

**The Privately Owned Vehicle (POV) Risk Management Toolbox is a tool for commanders, Leaders, supervisors and subordinates to use in their organizations. The toolbox contains best practice examples and lessons learned that can be used as accident prevention measures when developing a unit POV safety program.**

**Give it a Test Drive Today!**

**<https://safety.army.mil/>**



# 30 SECONDS START TO FINISH

COMPILED BY THE KNOWLEDGE STAFF

**U**nder demanding combat conditions, excitement can cause hesitancy or indecisiveness in the best aviators and crews. So what can we do when faced with a difficult situation? Be prepared! Understanding emergency procedures means knowing what happens to the aircraft with every action you take.

The day started out like any other for the Scout Weapons Team (SWT), flying out of a combat forward operating base. The flight crew for Chalk 1 consisted of the air mission commander (AMC) in the left seat and the pilot in command (PC) flying right seat. Both pilots had 900 hours of total flight time. The mission called for Chalk 1 to perform low-level reconnaissance at several named areas of interest (NAI) while their wingman provided overall security at the objective. The specific key task on this day was to deny the enemy's ability to emplace improvised explosive devices against coalition forces and their partners.

The crew completed the required risk assessment worksheets and the mission was rated moderate risk. The brigade commander approved the mission and crew mix during the concept of operation brief the day before.

Both flight crews conducted preflight activities the day of the mission, a go/no-go brief and an AMC back brief. The team's AMC then contacted squadron task force flight operations to inform them of the flights' departures from the airfield.

Chalk 1 was flying about 200 feet above ground level (AGL), while their wingman was flying 1,000 feet AGL and 800 meters behind. A few minutes into the mission, the team arrived at its first NAI and the lead aircraft crew observed and relayed a suspicious site to their wingman. Suddenly, the crew of Chalk 1 heard the full authority digital electronic control (FADEC) "Fail" audio tone. The PC retarded the throttle to the index mark as he initiated the emergency procedure for a FADEC failure. He reacted to the emergency with initial throttle reduction within 2½ seconds of the FADEC failure and attempted to control the engine power turbine speed (NP) and main rotor speed (NR) with the collective without success.

Because the crew failed to execute step two of the emergency procedure and place the FADEC AUTO/MAN switch to the MAN (manual) position, the PC's attempt to control NP with throttle had no effect. This is because the engine remains in a fixed fuel state based on the power setting at the time of the FADEC failure. As the PC began to reduce collective,





the engine began to overspeed. The result of not placing the switch to the manual position and reducing the collective in a fixed fuel state caused the engine to begin surging from 118 to 124 percent. The aircraft's overspeed trip point activates when NP reaches 124 percent. The PC initiated an autorotational descent as the surges caused by the overspeed governor activation induced severe aircraft vibrations and yaw excursions. As a result, the aircraft crashed and slid until it collided with a rocky ledge.

### Lessons Learned

The crew had repetitively flown this mission for four months. In the heat of the moment at 200 feet AGL, many concerns race through an aviator's mind when warning audios and caution lights go off. One in particular, "Have we just been shot?"

When the FADEC failed, the PC executed the first step in the emergency procedure; however, he failed to accomplish the remainder of the steps as required by Technical Manual 1-1520-248-CL, Operator's and Crewmember's Checklist

for Army OH-58D Helicopter. As a result, the PC wasn't able to control the surging engine and rotor rpm and, subsequently, entered an autorotational descent and crashed. Although the aircraft was destroyed, the crewmembers walked away.

This crew could have prevented this accident if one of them had placed the FADEC system in the manual mode and effectively controlled engine and rotor rpm manually with the throttle. The PC knew the proper emergency procedures but failed to execute them due to a desire to get the aircraft on the ground as soon as possible. Having said that, the fact both pilots walked away is a tribute to the PC's airmanship.

A second area of concern is crew coordination. Although the PC is the aircraft commander and has overall responsibility, the presence of a second crewmember requires effective crew coordination. It would have been nearly impossible for the pilot on the controls to place the FADEC AUTO/MAN switch into the manual mode while maintaining helicopter control. This situation required immediate action by both crewmembers. The PI also knew the correct procedure but was hesitant to place the FADEC system in the manual mode. The crew failed to coordinate their actions properly. They did not coordinate the actions necessary to complete the emergency procedure and safely land the aircraft as required by Training Circular 1-248, Aircrew Training Manual OH-58D Kiowa Warrior.

So what can we do? Ensure all pilots receive adequate crew coordination training as it pertains to this emergency procedure. Command emphasis is necessary to reinforce the importance of this action at all levels. Additionally, spend the extra minutes during the aircrew brief to discuss specific crew actions in the event of an emergency. You never know when you're going to have an emergency in flight. In this accident, the estimated total time from the initial indication of a FADEC failure to aircraft impact was 30 seconds. If confronted with a similar in-flight situation, what would you do? Be prepared! <<

## DID YOU KNOW?

The technical manual outlines the emergency procedure steps for FADEC Manual Operation as:  
Perform –

- (1) Throttle – Reduce
- (2) AUTO/MAN switch – MAN
- (3) Collective – Adjust to maintain RPM within limits
- (4) Throttle and Collective – Adjust to maintain RPM within limits
- (5) LAND AS SOON AS PRACTICABLE
- (6) If RPM cannot be maintained within limits, LAND AS SOON AS POSSIBLE

## LEAD to SUCCEED

Get the tools and information necessary to be an engaged Leader



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Keep your Soldiers safe on and off duty. Log on TODAY!



# HANDLE WITH CARE

**LARRY BAKER**  
U.S. Army Forces Command  
Fort McPherson, Ga.

**W**hile attempting to simulate an improvised explosive device blast during training, a Soldier pulled the pin and released the safety lever on what he believed was a standard smoke grenade. Unfortunately, he was actually handling a fast obscurant grenade (FOG). Almost immediately, the device detonated in the Soldier's hand, resulting in the loss of two fingers, as well as burns and minor shrapnel wounds.

Although the FOG looks similar to the M8 and M83, it's not a typical smoke grenade. Once the pin is pulled and safety lever is released, the FOG has an extremely short delay compared to other smoke grenades. This feature was designed to allow the FOG to be thrown for immediate effect in a tactical situation. As such, Soldiers should never "cook off" or "milk" the FOG. Doing so could result in catastrophic injury.

The basic FOG (version 1.0) is distinguishable by its fiberboard body, flat top with four visible screw heads and identifying nomenclature "Fast Obscurant

Grenade." The improved version of the FOG (version 1.2) can be identified by the confidence clip on the fuze. Version 1.0 does not have this clip. It is imperative Soldiers correctly identify the type of grenade before use.

Because of the potential hazards associated with the FOG, users must wear ballistic eye protection, as well as ear plugs and gloves. The fuze assembled to the FOG is a modified "flash-bang" fuze that can also cause serious burns.

Leaders at all levels need to be aware of the safety precautions associated with the FOG and take the proper measures when training personnel in its features and use. Soldiers must be trained and knowledgeable on the FOG's identifying characteristics; employment tactics, techniques and procedures; and safety precautions.

As seen in the accident above, misidentifying or treating the FOG as a standard smoke grenade can result in serious safety consequences. However, these types of accidents are preventable. Training, leadership and adherence to ammunition handling procedures can keep Soldiers safe. During

pre-deployment operations at both home station and training centers, Leaders must emphasize the ability to distinguish between variants of grenades. During relief-in-place operations, Leaders should ensure their Soldiers are trained on the ammunition they receive. Engaged leadership and focused training will improve the safety and operational effectiveness of our forces.◀



## DID YOU KNOW?

Conduct pre-combat inspections (PCIs) on your fast obscurant grenade (FOG) before and after training and combat to ensure the readiness and safety of the device.

The following is the recommended PCI checklist:

- Remove the FOG from its shipping container.
- Inspect the FOG for any damage (water damage, cracked case, exposed/leaking payload, missing label, etc.).
- Inspect the external fuze (M201A1 MOD3) for any damage, including the safety pin (straightened, broken, missing, etc.), spoon, pull-safe (pull ring inside of the retaining well) and its connection to the FOG.
- If any damage is observed, remove the device from operation and return it to your issuing authority as Condition Code H.

## FYI

The fast obscurant grenade (FOG) represents a fragmentation hazard to personnel within 200 feet of explosion. When employing the FOG, always wear ballistic eye protection, body armor, single ear protection and gloves.

# Out to Sea

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

**M**y favorite memories from childhood are of our Family vacations to Myrtle Beach, S.C. We made the trip every year from Kentucky to enjoy a week filled with coastal luxuries like breezy ocean winds and the feeling of sand between our toes. I loved the ocean. I was an avid swimmer and enjoyed success as a member of my local swim team. One day, however, my overconfidence in my abilities almost cost me my life.

In the summer of 1995, I was 15 years old and lacked a fear of things more powerful than me. We traveled that summer to Myrtle Beach and, after the long drive, I hopped out of the car and sprinted straight toward the ocean. I was coaxed out of the water for dinner, but was eager to return the next day.

I woke up early the following morning and headed to the beach with my father. We decided to do some boogie-boarding and wave-riding. He was also a great swimmer and taught me how to swim when I was very young. We were the “fish” of the Family. Naturally, we

spent hours in the ocean that day before we got tired and decided to lie back and float on the waves, relaxing with the momentum of the current.

I don’t recall how long we floated there, but when I finally raised my head to look around, I quickly realized we were in trouble. I looked toward the beach, where the sunbathers looked like ants and the beachfront hotels seemed distant on the horizon. I yelled at my father, who was floating nearby, and pointed toward the beach. I could see the fear in his eyes, despite his efforts to hide it for my sake. He immediately yelled,

“Swim!” and we frantically began paddling toward the shore.

I didn’t even raise my head to check my progress for the first five minutes. I swam as hard as I could, but I could not keep up with my father’s strong legs and arms. He picked me up and tossed me ahead of him and I swam until he caught up to me again. We kept this up for several more minutes until we were exhausted and gasping for breath. To our horror, the shore was still far ahead in the distance.

We both knew that to make it to shore we would have to swim with the current in a diagonal direction. We kept swimming and fell into a rhythm with the tide. Although time was hard to estimate, I’m sure more than an hour passed before we collapsed on the shore. We landed miles away from the point where we entered the water.

We had to take a taxi back to our hotel to find the rest of the Family and let them know we were all right. My mother, helped by three lifeguards, had been frantically scouring the beach for us. The feeling of reuniting with loved ones after such a big scare is hard to describe. Exhaustion and emotion overcame us, and my father and I collapsed into the arms of our Family members.

The lifeguards informed us that the rip tides were especially strong that day. A red warning flag had been displayed to indicate the water conditions were hazardous. I never even noticed the flag. I was so overconfident that I didn’t stop to consider the unrelenting power of the sea. I have since returned to the ocean several times, but I approach it with respect and a healthy fear of the danger behind its power.◀◀

## HOW TO AVOID AND SURVIVE RIP CURRENTS

Rip currents are particularly dangerous for weak or non-swimmers and can even sweep the strongest swimmer out to sea. The following tips will help keep you from becoming a victim of a rip current.

### When at the Beach

- Whenever possible, swim at a lifeguard-protected beach.
- Never swim alone.
- Learn how to swim in the surf. It’s not the same as swimming in a pool or lake.
- Be cautious at all times, especially when swimming at unguarded beaches. If in doubt, don’t go out!
- Obey all instructions and orders from lifeguards. Lifeguards are trained to identify potential hazards. Ask a lifeguard about the conditions before entering the water. This is part of their job.
- Stay at least 100 feet away from piers and jetties. Permanent rip currents often exist alongside these structures.
- Consider using polarized sunglasses when at the beach. They will help you to spot signs of a rip current by cutting down glare and reflected sunlight off the ocean’s surface.
- Pay especially close attention to children and the elderly when at the beach. Even in shallow water, you can lose your footing.

### If Caught in a Rip Current

- Remain calm to conserve energy and think clearly.
- Never fight the current. Think of it like a treadmill that you cannot turn off and you need to step to the side.
- Swim out of the current in a direction following the shoreline. When out of the current, swim at an angle — away from the current — toward shore.
- If you are unable to swim out of the rip current, float or calmly tread water. When out of the current, swim toward shore.
- If you are still unable to reach shore, draw attention to yourself by waving your arm and yelling for help.

### If You See Someone in Trouble, Don’t Become a Victim Too

- Get help from a lifeguard.
- If a lifeguard is not available, have someone call 911.
- Throw the rip current victim something that floats such as a lifejacket, cooler or inflatable ball.
- Yell instructions on how to escape.
- Remember, many people drown while trying to save someone else from a rip current.

Source: National Weather Service

# STILL CONFUSED? ON ACT-E

**CHIEF WARRANT OFFICER 3 BILL NEAL**  
Directorate of Training and Doctrine  
U.S. Army Aviation School of Excellence  
Fort Rucker, Ala.

**The Aircrew Coordination Training-Enhanced (ACT-E) training process has recently had considerable changes made to its courseware. After reading this article, you should have full “knowledge” of all ACT-E courses.**

I'll start with an example of a new aviator and follow him throughout his career. As of June 2006, all aviators graduating flight school are ACT-E “initially qualified.” New aviators receive blocks of instruction on all aspects of ACT-E in Initial Entry Rotary Wing training and follow-on instruction at the flightline. There might be an instance, such as an interservice transfer, where a student failed to receive initial qualification. In this case, the student is required to take the initial qualification course available on the U.S. Army Blackboard server at <https://ellc.learn.army.mil>. Upon completion of the course, the student's training is documented in his individual aircrew training folder. A certified instructor must conduct this course, as with all ACT-E courses.

Now, let's take that same aviator a few years down the road and send him to the instructor pilot (IP) course. Upon completion of any Army-approved IP qualification course, the aviator is qualified to be an ACT-E instructor. This is retroactive, meaning any IP, regardless

when he completed IP training, can conduct ACT-E training. A “train the trainer” course is no longer required.

The same highly trained IP now goes to Fort Hood, Texas. The company standardization pilot (SP) tasks him to conduct annual ACT-E sustainment training for four pilots. Before the IP can conduct any training, he must first register on the U.S. Army Blackboard Web site. If for some reason he is not registered, he should go to [https://training.rucker.army.mil/Protected/ACT\\_E/ACTE.html](https://training.rucker.army.mil/Protected/ACT_E/ACTE.html) for information on the process. Once registered, he'll receive a confirmation e-mail, Web site link and instructions to navigate through the site. The IP is now ready to conduct annual sustainment ACT-E training.

ACT-E courseware is not intended for use as stand-alone instruction. The intent is for ACT-E sustainment training to be “instructor led.” To clarify what instructor led means, the instructor logs onto the site and conducts the training. This is a great opportunity to promote group discussions outside the cockpit on aircrew coordination topics. There is no requirement to disclose your specific airframe. If you find a scenario in a different airframe that you feel is important in your class, use it. The training support package, provided by the Web site, is a great tool and affords instructors the ability to move from slide to slide at a pace in line with group discussion. This allows the instructor to fine tune the course so the students get the most out of it.

Training Circular (TC) 1-210, Aircrew Training Program Commander's Guide to Individual, Crew and Collective Training, is now TC 3-04.11. The ACT-E portion is published in TC 3-04.11, Chapter 4, and through the Directorate of Evaluation and Standardization portal on Army Knowledge Online. The following is an excerpt:

**4-67.** The following standardization personnel (SP/IP/IE/SI/FI) are authorized to conduct ACT-E training as an ACT-E instructor:

- Standardization personnel (SP/IP/IE/SI/FI) upon completion of an USAACE-approved IP or Aircrew Standardization Instructor course.
- Standardization personnel (SP/IP/IE/SI/FI) previously instructor-qualified to teach ACT or ACT-E qualification training.

- Current and qualified ACT-E instructors may qualify other standardization personnel (SP/IP/IE/SI/FI) as ACT-E instructors.

**4-68.** Instructor-qualified rated crewmembers (RCM) may conduct initial ACT-E qualification, sustainment and instructor qualification training for RCMs, non-rated crewmembers (NCM) and unmanned aircraft systems (UAS) personnel. Instructor-qualified NCMs may conduct initial ACT-E qualification training for NCMs only.

**4-69.** ACT-E initial qualification, trainer qualification and annual sustainment training will be annotated on the individual's DA Form 7122-R as an event and in the remarks section of the individual's DA Form 759 during the annual closeout.

As noted above, standardization instructors and flight instructors (SI/FI) are qualified to do initial qualification on NCMs only. It does not say they are qualified to do sustainment training. Although RCMs and NCMs have different jobs in the aircraft, aircrew coordination is essential between the two.

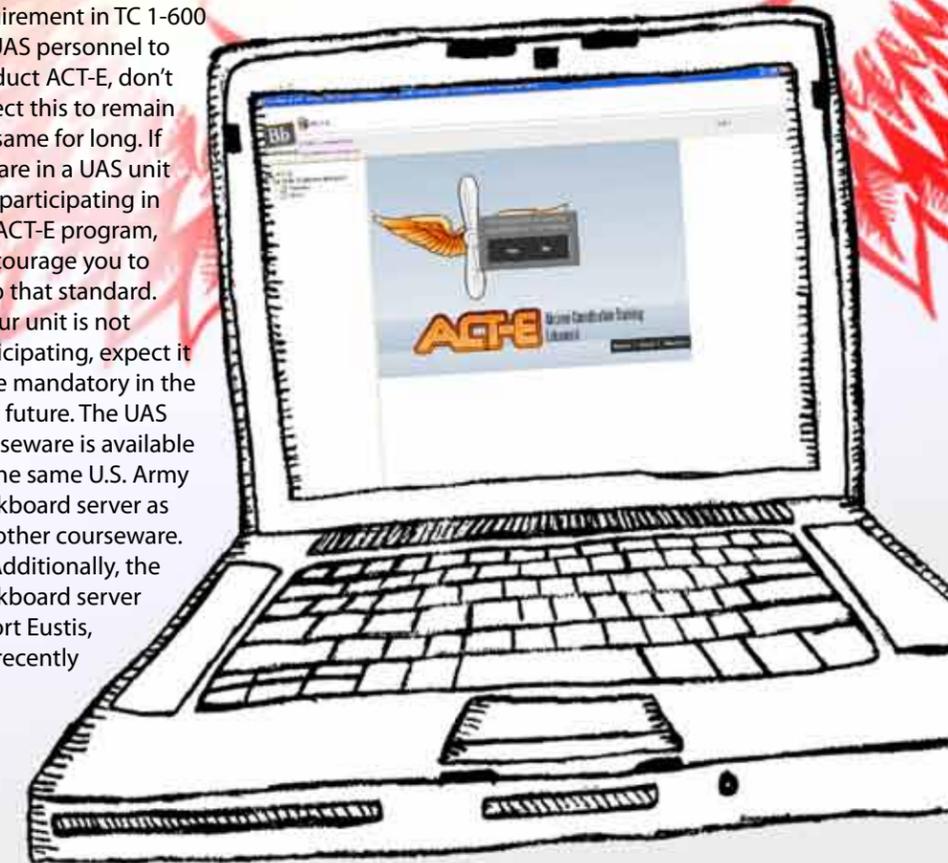
The UAS has its own regulation pertaining to ACT-E and is not addressed in TC 3-04.11. Although there is no requirement in TC 1-600 for UAS personnel to conduct ACT-E, don't expect this to remain the same for long. If you are in a UAS unit and participating in the ACT-E program, I encourage you to keep that standard. If your unit is not participating, expect it to be mandatory in the near future. The UAS courseware is available on the same U.S. Army Blackboard server as the other courseware.

Additionally, the Blackboard server at Fort Eustis, Va., recently

changed its Web address. Although the format is similar to the old server, the new system has more capability. Please note that it has a new registration process, and students must register on the Blackboard server every fiscal year.

The first requirement date for either registering or re-registering is May 1. All prior user records will be removed from the system on that date. After May 1, user records will be purged on Oct. 1 each following year. Users will receive an automatic message via the Blackboard to alert them to preregister prior to the purging. If users are preregistered, the purge will seem less cumbersome.

This process might seem awkward, but as you use it, the system will become more familiar and user-friendly. Nonetheless, with any new server, we will have issues and will resolve those problems as they emerge. If you have any comments, suggestions or complaints, contact me at (334) 255-9663, DSN 558-9663 or e-mail [ruck.acte@conus.army.mil](mailto:ruck.acte@conus.army.mil). The e-mail address for the project manager should not change, regardless who is in the position. <<



DAILY NEWS

# A DRUNK KILLED MY DAD

RETIRED LT. COL. JOHN PASTINO  
Springfield, Va.

**“Car wreck in Crystal Beach leaves one dead,” read the headline in the April 16, 2001, issue of the Galveston County Daily News. Further down the article reported, “A two-car wreck on (Texas) state Highway 87 Sunday afternoon left one man dead and two others in the hospital.” The article also quoted a police officer saying, “This one was real bad.”**

The headline held more than passing interest for me. You see, the man who died that Easter Sunday in 2001 was my father, a retired U.S. Marine colonel and Vietnam veteran.

That Sunday afternoon, my wife and I and our sons were enjoying Easter dinner at my mother-in-law’s house when the phone rang at 4:30. Recognizing my brother’s voice, I said, “Hey, Philip!” thinking he was calling to wish me a happy Easter. Unfortunately, that wasn’t the case.

“John — mom and dad were in a car accident,” he said. “Dad’s dead and mom might not make it through the night.” I hung up the phone, stunned as a hundred things raced through my mind at that moment.

My wife and I immediately made reservations to fly to Galveston. Before leaving, I called the hospital

to check on my mother’s condition and was told she was still alive. She hadn’t been told of my father’s death. The doctors feared it would affect her condition and whether she’d make it through the night.

We got to the hospital at 2 a.m., talked to the physicians and then went to see mom in the intensive care unit. My wife entered the room ahead of me and I heard my mother’s voice say, “Oh, it’s Sharon.” At that moment I knew I’d be able to see mom and, hopefully, talk to her. She had suffered multiple contusions and broken ribs and also had a concussion. I was grateful she was still alive for me to talk to that night. The next day, Philip flew down as mom was recovering in the hospital. Together, he and I went to the accident scene.

Mom and dad had rented a new Dodge Intrepid for their vacation in Galveston. The Intrepid and the truck that hit them had been removed from the crash scene. However, you could see the skid marks on the road and the tire tracks where the grass was torn up. From looking at the accident scene, you could tell it had been a horrific crash. Shattered glass from the headlights and pieces of metal from the car were scattered over a 100-yard area. When you see wreckage like that, you don’t have to imagine what a head-on collision can do — you’re looking at it. It was what killed my father.

My father’s loss affected all those who knew him and more than 400 people attended his funeral. My mother is strong; but to lose her husband of 30 years — one

can only be so strong. Although she has physically recovered, losing her best friend in a senseless, meaningless act of irresponsibility has left scars that will never go away. Not only did my brother and I lose our father, mentor and best friend, our children will never get to really know their grandfather.

The drunk driver, who I refer to as my dad’s “killer,” was sentenced to eight years, but was placed on probation and released a year early. How well does seven years in prison balance against the loss of a man’s life? Does the punishment fit the crime of drunken manslaughter?

I have a simple message to those who drink: I am not against drinking, but I am against drinking and driving, especially since there are plenty of ways to keep from doing that.

If you plan to drink, then plan not to drive. Make sure you have a designated driver to take you home safely. If you’re tempted to “change course” while you’re out drinking, don’t. Even though you may feel fine, once you’ve had a drink or two, your ability to make good decisions diminishes.

You can also try keeping a \$20 bill in your pocket for a taxi. Taxi fare may not be cheap, but it’s cheaper than paying legal fees and repair costs if you crash. Or, if your unit offers a free pickup service for those who’ve been drinking and need a ride home, use it. Driving your car home the following day beats having it hauled to a junkyard that night.

Also, consider calling a friend or Family member (if they live in the area) for a ride home. Understand they’d much rather take 45 minutes out of their time now than attend your funeral next week.

And, finally, think about others on the road and the funerals their Families don’t want to attend. By making one wise choice, you may save two Families from tragedy.◀



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# "PLUSSED-UP"

**CHIEF WARRANT OFFICER 3 JUSTO PEREZ III**  
 B Company, 1st Battalion, 223rd Aviation Regiment  
 U.S. Army Aviation School of Excellence  
 Fort Rucker, Ala.

**T**he aircraft started to shake violently as we maneuvered onto a pinnacle at 9,100 feet mean sea level (MSL). I grabbed the controls and landed at the bottom of the landing zone (LZ) in the rugged terrain. That night, 30 Soldiers and a flight crew survived a CH-47D falling prey to the unforgiving terrain of Afghanistan. I relive that moment in my head repeatedly and struggle to comprehend how we could have prevented this incident. I'm passing on my story in hopes that others will learn from my experiences on that pinnacle in the dead of night. As the old adage goes, "Learn from everybody else's mistakes because you can't make all of them yourself."



It was the middle of June 2008 and the deployment was wearing on my unit, having only been in Afghanistan for six months. We were flying on the edge every day and night and were making life-changing decisions on each mission. My wife and I had a son in February and I was eager for this deployment to end so I could go home to be with my Family. Like many others in my unit, this was not our first deployment and we all knew what to expect during this rotation.

We received a mission to insert troops in the Nuristan province, which is southwest of Naray, now known as Bostic. Our initial focus was on planning the mission and ensuring all required items were completed in accordance with brigade standing operating procedures. The LZ imagery depicted the typical mountainous terrain for eastern Afghanistan with steep, jagged mountains and cliffs with numerous trees.

The mission required three aircraft, which consisted of two

Chinooks and one Black Hawk. Night vision goggles (NVG) were not mandatory for every mission in Afghanistan, but we used them for this mission, as planned. All pilots were "plussed-up" — the slang term used for seasoned aviators who are capable, experienced and knowledgeable to accomplish the mission safely. We completed a risk assessment worksheet to identify and develop controls for the mission's hazards. The risk assessment total number is lower if the pilots have over the set amount of flight hours and NVG hours. The same applies to the nonrated crewmembers (NCM). For this mission, the NCMs met the requirement. In Afghanistan, the colors green, amber and red represent the level of crewmember experience. For our mission, the risk assessment was "moderate" with all conditions noted and approved at the appropriate risk authority.

Everything was going according to plan with no delays. Prior to the mission, I got on TaskView, a feature of FalconView that displays the terrain and flies the mission either day or night. TaskView is

an integral planning tool that shows the crew what to expect for the routes and LZs. For this mission, it depicted extremely steep terrain. We knew that we would be facing a challenge, but we all agreed it was manageable.

We departed after sunset and, as we arrived on short final to the LZ, I announced on the radio that this was a one-ship LZ. Chalks 2 and 3 started orbiting to the south while we attempted to insert our troops. We came to a high hover over the LZ with no suitable area to land. According to S-2, the maximum slopes to be expected were only 6 to 7 degrees. However, the slopes below us were steep on all sides with 40- to 70-degree inclines.

While hovering out-of-ground effect and trying to find a suitable area to safely land the aircraft, we noted a pinnacle to our southwest suitable for us to perform a two-wheel aft landing. This type of landing was not uncommon in Afghanistan, especially under goggles. The crew discussed the new LZ and my co-pilot announced his actions and I acknowledged, as did the crew. We proceeded to reposition the aircraft to the pinnacle. We then cleared the aircraft appropriately.

“ All **PILOTS** were “**PLUSSED-UP**” — the slang term used for **SEASONED AVIATORS** who are **CAPABLE**, experienced and **KNOWLEDGEABLE** to **ACCOMPLISH** the mission **SAFELY**. ”

As we were backing the aircraft to position the rear wheels on the slope, the flight engineer (FE) yelled, "Hold your back!" Simultaneously, the aft blade struck a tree, causing the aircraft to shake violently. I looked at my co-pilot and said, "Land!" He said, "Let's fly it," which I followed with, "F\*\*\* no!"

I grabbed the controls and moved the aircraft forward and down the steep terrain. As we descended to the bottom of the ravine, the blades began to strike the side of the mountain. I could hear each blade ram the massive rocks, causing the aircraft to shake violently with each impact. The aircraft settled onto the bottom of a streambed with the forward transmission sheared off and the aft blades horizontally stacked into the mountain.

I pulled the engine control levers to stop power and then pulled the fire pull handles. Suddenly, the overhead console dropped down to eye level and I could hear the loud screaming of the engines winding down. We checked on the flight crew and the 30 passengers onboard. Everyone was OK, so we began our egress.

**Lessons Learned**

What I have learned from this preventable accident is the entire crew needs to be "plussed-up." When conducting missions, whether day or night, all crewmembers should be capable and have experience. The two pilots and an FE were the only experienced crewmembers who had done this type of mission before. Unfortunately, the FE had to pick up the slack of the other NCMs (a crew chief [CE] and gunner) who had little experience in this type of maneuver.

While attempting to land on the pinnacle, the CE on the ramp focused his attention inside the aircraft without announcing his actions to the crew, which compromised his sector of scan. Ultimately, the responsibility was left to the inexperienced gunner and the experienced FE to clear the aircraft for landing. The FE, positioned at the cabin door, couldn't watch for obstacles because the door blocked his view of anything directly behind the aircraft. The gunner was situated on the left side and unable to view any impediments to the rear of the aircraft.

During this mission, the CE had the responsibility of clearing the aircraft aft; however, he misjudged the aircraft's distance and rate of closure while maintaining obstacle avoidance during the landing and hovering sequence. This was due, in part, to the hasty decision to reposition the aircraft from the original LZ, which the crew had studied prior to the mission, to the new area with reasonable slope. In addition, had the CE announced, "Ramp's inside!" the pilot on the controls would have stopped the maneuver and possibly prevented this accident.

The crew did not consider this a high-risk mission because crew selection met the criteria and was adequate for the mission. However, taking into account the limited experience of the CE and gunner, the risk assessment should have been elevated. In addition, better crew coordination techniques could have been applied to the pinnacle landing attempt and the selection of the CE and gunner could have been changed for this mission.

If you have access to the Risk Management Information System (RMIS), found on the U.S. Army Combat Readiness/Safety Center Web site, you can learn from my mishap on June 17, 2008. I am thankful no lives were lost that day; however, a significant amount of equipment was destroyed.

Another accident similar to this one occurred about a year prior to mine; however, the entire crew died attempting the same task. A close friend of mine died in that accident, along with other brave and courageous Soldiers. Let's pay them honor and respect by learning from these valuable lessons and completing our future missions successfully.◀



**ARE YOU READY?**

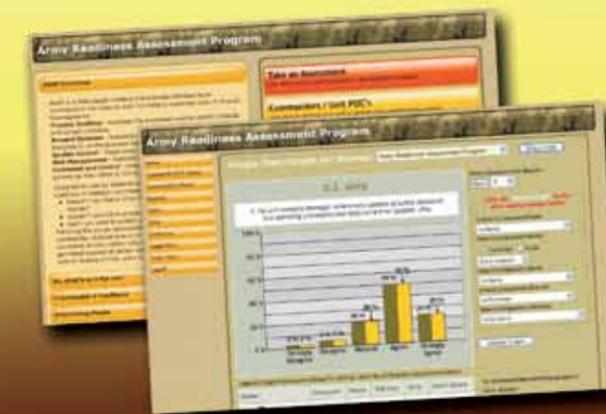


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# SHAFTED

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

**Several years ago, I read an interesting article by a California Highway Patrol officer on what he called “high-horizon driving.” He pointed out how important it is to look far enough down the road so you can avoid accidents, debris and other dangers. It didn’t take a rocket scientist to see his ideas made sense. However, his point seems to be lost on some people — especially tailgaters. Not long after reading that article, I saw that graphically demonstrated.**

I was driving southbound in a highway’s left lane when I saw a 3-foot-long piece of angle iron a short distance ahead in the right lane. I wasn’t particularly surprised. In the past, I’d seen pallets, mufflers and other debris turn this road into a slalom course for drivers. What really piqued my interest was what was going on in my rearview mirror. A short distance back in the right-hand lane was a car with two vehicles bunched up behind it. The speed limit was 55 mph and the two drivers were eating up each other’s back bumpers as they tailgated the leading car.

Having no way to warn them, I briefly glanced into my rearview mirror to see what would unfold. The driver in the lead car could easily spot the

angle iron in time to avoid it. The two tailgaters, however, would be in for a rude surprise.

Much to my amazement, the lead driver didn’t react until the last second. Maybe she wasn’t paying attention or maybe she thought it might be fun to teach the tailgaters a lesson. Whichever it was, she veered just enough to miss the piece of angle iron. Talk about a “teachable” moment for the drivers behind her!

The second driver ran over the angle iron with his left-hand tires. I half expected a blowout, especially since a lot of drivers there drove their tires down to the cords. Instead, the iron came out spinning like a helicopter rotor, headed straight for the second tailgater.

The iron went twirling beneath the second tailgater’s car. I watched to see if a shower of sparks or a puff of smoke would

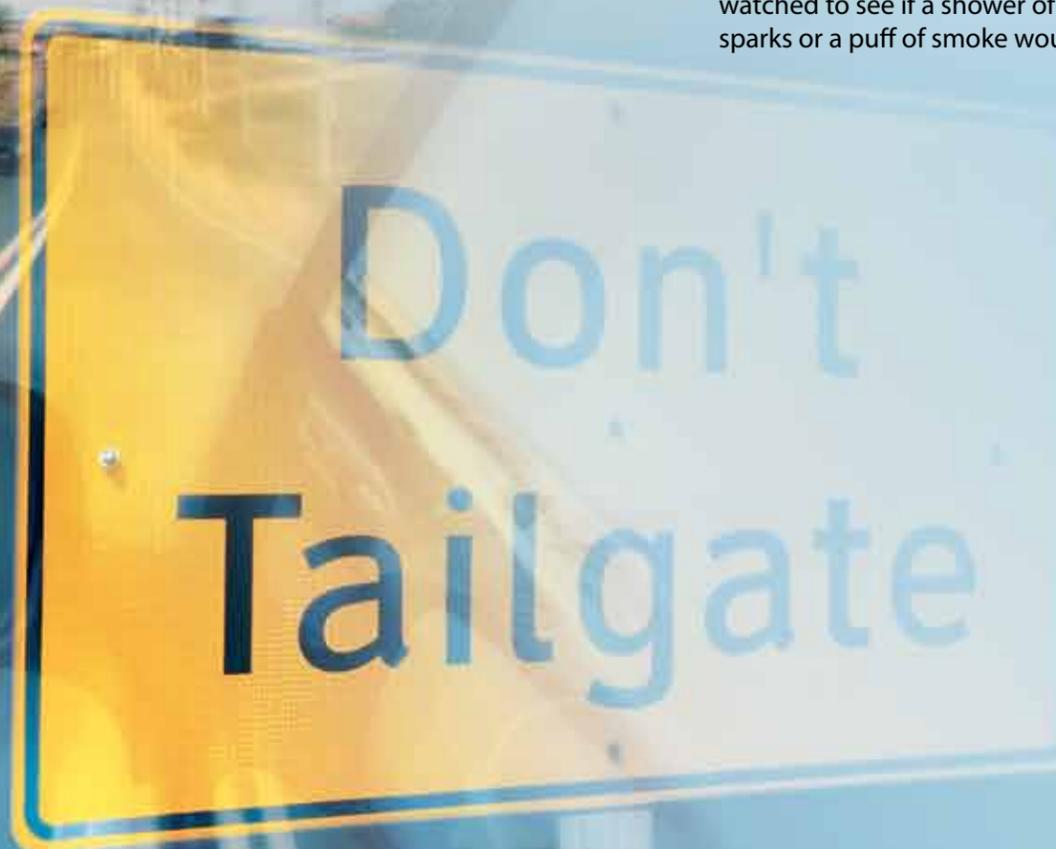
indicate something worthwhile had just become “non-op.” Key parts of an automobile’s anatomy such as the engine, transmission, brake lines and steering components don’t react well to being “shafted.”

By some miracle, both tailgaters survived apparently unscathed. It could have been worse. I’ve also seen cinder blocks and other “goodies” lying on the road that might not pass so easily beneath your typical automobile.

That got me thinking. I asked myself, “Do I allow enough following distance to see and dodge nasty objects in the road ahead?” That’s not the same as, “Am I allowing a safe interval behind the car I’m following?” You see, short of hitting a stopped 18-wheeler, the car ahead of me is not likely to stop instantly. There will be a certain amount of time and distance involved.

By contrast, road debris is normally immobile. It doesn’t warn you with brake lights, turn signals or flashers, nor is it moving forward and giving you more space to stop. If you can’t spot it in time to avoid it, you get to “eat” it.

If you’re tempted to crowd the back bumper of the vehicle ahead, you might want to play out this scenario inside your head. Then ask yourself which you’d rather be on the highway — slightly delayed or seriously “shafted.”



MAJ. JEFFREY L. WEBBER  
 Joint Force Headquarters, Armor  
 South Carolina Army National Guard  
 Columbia, S.C.



**W**e all know what the best “safety” feature on a car is — the reflection of a police cruiser in the rearview mirror! That’ll make anyone drive more defensively and stay well within the posted speed limit. But how often is our rearview mirror filled with something else just as attention-getting — a tailgater riding our back bumper and pushing us to go faster?

That recently happened to me when a “soccer mom” was eating up my back bumper on a two-lane state highway with a 55-mph speed limit. She was driving a Dodge minivan carrying two children and what looked like half the groceries from her local Wal-Mart.

I wondered why she was in such a hurry. Maybe she was trying to keep the ice cream from melting after her grocery run. Maybe she was attending to a crying, car-seat-restricted child

that needed changing. Maybe she needed to get home to let the dog out before it soiled the carpet. In any event, she clearly wanted me to drive faster, move over, pull over or otherwise get the heck out of her way.

What can you do about drivers who see you doing the speed limit as an impediment to their travel? If you try using the “3 Es” of safety — enforcement, engineering and education — you’ll be faced with certain limitations. Enforcement is not a reliable

option because you can’t expect a police officer to be on hand every time someone tailgates you. And while engineering — like antilock brakes — has shortened vehicle stopping distances, that doesn’t really help tailgaters. They don’t leave themselves enough time to react and put those brakes to good use. The only option left is education. Drivers need to understand what a proper following distance looks like.

So, you ask, how can you figure out the proper following distance?

While the answer depends on the road conditions and speed you’re driving, the “Two-Second Rule” is a good foundation. Fortunately, it’s easy for anyone to use.

To practice this rule, choose a stationary object such as a sign, tree or overpass as a landmark along the road ahead. Watch the rear bumper of the vehicle ahead of you to see when it passes that landmark. When it does, start counting, “one thousand and one, one thousand and two.” If you reach the landmark before you’re finished counting, you’re following too closely.

Two seconds is the minimum following distance you should maintain and applies to daytime driving in good weather at speeds of less than 40 mph. In poor weather or when traveling faster than 40 mph, you’ll need more time to react. The National Highway Traffic Safety Administration offers the chart below to help you adjust to the road conditions you may encounter. (If several conditions apply, just add up the extra seconds for all of them.)

IF	ADD
You’re traveling at more than 40 mph	2 seconds
You’re driving at night	1 second
There is a motorcycle in front of you	1 second
There is fog or poor visibility	1 second
The pavement is wet	1 second
You’re being tailgated	2 seconds
The tailgating vehicle is a bus or tractor-trailer	4 seconds
You’re towing a trailer	2 seconds

Using the Two-Second Rule and adjusting for the conditions can keep you from running out of time, space and options. And remember, avoiding an accident is a lot easier than filling out a police report, swapping insurance information and waiting for a tow truck. Isn’t that worth a couple seconds of your time?◀



# Nuts and Bolts: Who Spiked the Bike? True Story

CHIEF WARRANT OFFICER 2 JUAN C. GARCIA  
Company B, 563rd Aviation Support Brigade  
Fort Campbell, Ky.

*Editor's note: This column is dedicated to keeping readers up to date on vehicle recalls, crash test information and other items of interest on automotive and motorcycle safety. This month's "True Story" tells how a motorcycle rider on a Florida highway was nearly speared like a fish. And the kicker is — this wasn't a freak accident — it could happen to you!*

*If you have an automobile or motorcycle "True Story" to share, just e-mail it to [safe.knowledge@us.army.mil](mailto:safe.knowledge@us.army.mil). Please send pictures if you've got them.*

**I was riding my motorcycle on Florida State Highway 22 toward the town of Wewahitchka when I noticed another biker on the side of the road using his cell phone. He was standing next to his bike and, while there didn't seem to be any problem, I stopped to offer assistance. When I did, he pointed to the bottom of his bike and I noticed a 3-foot-long metal rod poking through the engine oil reservoir!**

The gentleman introduced himself as Nick and, from the pictures on this page, you can see he was lucky to still be conscious, standing and unhurt. The bike is a 2004 Suzuki Marauder. Prior to this nonstandard "modification," it was in perfect condition — it didn't even have a scratch on it.

### This was NOT a Custom Modification!

I asked him how this happened. He said he was cruising to work at Tyndall Air Force Base near Panama City, Fla., and didn't see the object lying in the road until it was too late to avoid it. He said he felt something hit the bottom of his bike and knew there was a problem when he looked in his mirror and didn't see anything come out behind him. A driver following him saw a puff of smoke that got thicker and thicker. He said Nick was



able to bring the bike to a quick stop and, while he wasn't sure what Nick had hit, he knew it wasn't going to be good. They were both as amazed as I when they saw the size of the metal rod and how little apparent damage it did.

### It Could Have Been Worse

You can see from the pictures that the rod is slightly bent, which is probably what caused the bike's front tire to kick it up off the road. This thing could've easily come up at a slightly different angle and gone through Nick's leg. Imagine trying to stop a bike at 70 mph with a rod sticking out of your leg or after a rod had gone through it! The rod also could've punctured the tire. I'll leave it to your imagination to consider what that would have done.

I think the lesson for us riders to learn from this incident is to watch where we're going. We need to pay attention to the road far enough ahead so we'll have time to avoid an object or, at least, slow down to limit the damage. For riders who tend to follow the vehicle ahead too closely, this is a perfect example of the nasty surprise you can get.

Remember to maintain a proper following distance and be alert for road hazards. You never know when a steel rod or something else on the road might be waiting for the chance to impale your bike — or you.

### Heads-up for Riders

If you ride either a 2005-2009 Triumph Sprint ST 1050 or a 2009-2010 Ducati, your motorcycle might be under a safety recall. For more information on these motorcycles and their safety-related problems, go online to <http://www-odi.nhtsa.dot.gov/recalls/recallsearch.cfm>.

**INFORMATION ON DEMAND**

**U.S. ARMY COMBAT READINESS/SAFETY CENTER**

<https://safety.army.mil>

Accidents occurred between Dec. 1-31, 2009



# LOST

**AVIATION**  
**CH-47D**

**CLASS C**  
 Postflight inspection revealed damage to the undercarriage and aft ramp of the aircraft. Damage was determined to

**HH-60M**

**CLASS B**  
 The main rotor blades contacted the tail rotor driveshaft during landing.

**UAS**  
**MQ-1C**

**CLASS C**  
 The unmanned aircraft (UA) entered an uncommanded roll during ground movement and contacted a data terminal tower.

be caused from contacting rocks during an infil landing.

**MQ-5B**

**CLASS A**  
 The UA crashed during takeoff after the aircraft operator lost video link.

**RQ-7B**

**CLASS B**  
 The UA contacted a barrier/wall shortly after launch and sustained damage.

**CLASS C**  
 While returning to base, the UA experienced an engine failure at 4,000 feet above ground level. The recovery chute deployed; however, the aircraft sustained damage.

The UA sustained damage when it experienced a simultaneous generator/ignition failure during landing.

**GROUND**

**Other**

**CLASS A**  
 An Army contractor was driving a government vehicle when he left the road and veered into the opposing lane. The contractor attempted to regain control but collided head-on with a privately owned vehicle (POV). The driver of the POV was fatally injured.

**Personnel Injury**

**CLASS B**  
 A Soldier's toes were amputated when they were crushed by a 700-pound medium girder bridge panel he was helping move.

A Soldier lost two fingers when a smoke grenade detonated in his hand during combat simulation.

Get the tools before the road gets rough.

**Driver's Training Toolbox**

<https://safety.army.mil/drivertrainingtoolbox/>

**ARMY AVIATION LOSSES**  
 Fiscal 2010  
 as of Mar. 7, 2010

Class A/Fatalities

ATTACK	0/0
RECON	2/4
UTILITY	3/4
CARGO	1/0
TRAINING	0/0
FIXED-WING	1/0
UAS	3/0
<b>TOTAL</b>	<b>10/8</b>

**ARMY GROUND LOSSES**  
 Fiscal 2010  
 as of Mar. 7, 2010

Class A/Fatalities

AMV	6/4
ACV	4/2
PERSONNEL INJURY	9/10
<small>includes weapons-handling accidents</small>	
FIRE/EXPLOSIVE	0/0
PROPERTY DAMAGE	0/0
<b>TOTAL</b>	<b>19/16</b>

# ARE WE THERE YET?

## TRAVEL RISK TRIPS PLANNING SYSTEM

Be realistic about the distance you can cover in a day. Find out before hitting the road. Use the easy, online TRIPS tool today!

<https://safety.army.mil>

# POV DRIVING LOSSES

as of Mar. 7, 2010

Class A/Fatalities

CAR	21/22
SUV/JEEP	3/3
TRUCK	3/3
MOTORCYCLE	7/7
PEDESTRIAN	3/4
OTHER*	1/1

\*Includes: vans and ATVs

# 40

## TOTAL DEATHS

Fiscal 2009: 45 3 year average: 47

■ A Soldier's finger was amputated when his wedding band became caught as he dismounted a Mine Resistant Ambush Protected vehicle.

### DRIVING

#### POV



#### CLASS A

■ A Soldier was entering the autobahn in his POV when he lost control, spun and was struck on the driver's side by another vehicle. The impact caused the Soldier's POV to burst into flames, resulting in fatal injuries.

■ A Soldier was driving a POV when it left the road, struck a tree and caught fire. The Soldier was not wearing his seat belt and suffered fatal injuries.

■ A Soldier on leave was speeding in his vehicle when

he lost control in adverse road conditions and struck a guardrail. The impact killed the Soldier.

■ A Soldier was riding in the backseat of a POV that was broadsided by another vehicle that failed to yield right of way at an intersection. The Soldier was taken to a hospital, where he later died.

#### POM



#### CLASS A

■ A National Guard Soldier was riding his privately owned motorcycle to his assigned armory when he lost control, overturned and slid into the path of an approaching vehicle. The Soldier died en route to the emergency room.



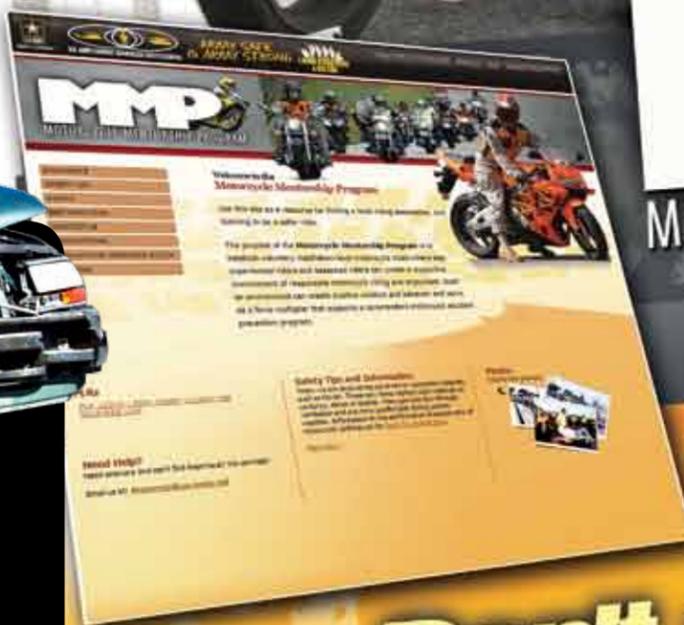
# RIDE FOR YOUR LIFE



# MMP

MOTORCYCLE MENTORSHIP PROGRAM

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



Don't ride alone. Mentor a battle buddy!

# ARE YOU A SHARP SHOOTER?

The Range & Weapons Safety Toolbox contains information and tools related to the safe handling of privately owned weapons in addition to resources to establish and maintain effective range and weapons safety programs with military weapons.



**CHECK IT OUT TODAY!**

<https://safety.army.mil/rangeweaponssafety>



**ARMY SAFE IS ARMY STRONG**

