



THIS MONTH SEPTEMBER 2016



Staying on Track

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The military's use of the railroad system began during the Civil War, and it is still a vital part of sustaining the warfighter today. Rail is the primary way the military moves large quantities of equipment and ammunition. While rail transport has proven itself capable of supporting war efforts over many decades, it can be hazardous. That's why safety is paramount during railroad operations.

Military rail comprises four major areas that contribute to its success: track maintenance, railcar and locomotive repair, rail loading operations, and train and engine operations.

The rail operations program could fail if all four of these areas do not work as a team.

Track maintenance

In accordance with the Code of Federal Regulation, Title 49, Part 214, maintenance-of-way personnel must protect themselves while working on railroad tracks to prevent accidents, injuries or fatalities. They must follow on-track safety procedures to ensure worker protection and prevent a train or runaway railcar from entering their work zone.

In recent accidents resulting in injuries and fatalities, roadway worker protection was not enforced. One such accident closed an installation's railway for more than 30 days and proved detrimental to the mission. Mission failure can lead to catastrophic consequences that include derailments, washouts and grade crossing incidents

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that could cause injury and damage to equipment or close the tracks to traffic.

Railcar and locomotive repairs

When personnel are conducting maintenance on a locomotive or railcar, special care must be exercised. General Code of Operating Rules, rule 5.13, outlines the requirements for protecting personnel who are inspecting, testing, repairing and servicing rolling equipment. In particular, because these tasks require work on,

80-pound bags of sand to the top of the locomotives to fill the receptacles. The personnel performing this task should use fall arrest or fall protection systems while working to help prevent accidents. The preferred method for lifting sandbags is to use a sand hopper that operates off the locomotive's air system.

Rail loading operations

Rail loading operations require coordinated teamwork and attention to detail. Both Soldiers and civilians load and secure

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Mission Statement:

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

“Most of these accidents could have been prevented if the train crew and vehicle operators were following proper procedures.”

under or between rolling equipment, workers are exposed to potential injury from moving equipment.

Locomotives use sand for traction, so part of the duties of a locomotive mechanic is to replenish the sand receptacles on board. These sand receptacles, such as ones on the GP10 locomotive, are located in the rear, about 15 feet above the ground. It has been a common practice for locomotive mechanics to lift

equipment on railcars. All personnel must be properly trained prior to the loading operation.

Proper spanners (platforms for bridging gaps between railcars) must be used, and personnel need to ensure the spanners are secure and in the correct position. There have been occurrences in which a spanner slipped off and the vehicle being loaded fell between or off the railcar. This resulted in



property damage and drastically slowed down the operation.

In other accidents, railcars were en route to a port of embarkation or debarkation when the vehicles became unsecured, up-armored doors came open and secondary loads became unsecured. This resulted in damage to railway signals and passing trains. The keys to a successful loading operation are making safety the first priority and being familiar with all of the publications that reference loading operations.

Train and engine operations

One of the most vital parts of train operations is the train operating crew. This crew usually consists of a locomotive engineer, conductor and brakeman. Their jobs have many associated hazards, so they must be alert and follow all proper procedures to prevent accidents.

Trends show most accidents are from runaway railcars. In fact, in the past few years, numerous incidents have involved runaways. In one case, a runaway DODX railcar loaded with two M1 Abrams tanks proceeded six miles at about 86 mph before it

Did You Know?

To mitigate risk, the Army has a number of rail publications that govern the management of rail equipment, operations, airbrakes and train handling, rail safety, railroad maintenance, track safety, and tie-down procedures for rail movements. All of these publications are driven by Army Techniques Publication 5-19, Risk Management.

derailed at a split-point derail, which prevented the railcar from entering the mainline. Although no injuries occurred, the cost of the accident was estimated at \$5 million. Properly applying handbrakes and chocking railcars could have prevented these accidents.

There have also been several accidents at railroad crossings involving motor vehicles and trains that have resulted in injuries and property damage. Most of these accidents could have been prevented if the train crew and vehicle operators were following proper procedures.

Preventive measures

To reduce rail accidents, the Transportation Regimental Safety Office of the Combined Arms Support Command, the Joint Munitions Command, the

Army Sustainment Command, the Military Surface Deployment and Distribution Command, and the Army Combat Readiness Center have partnered to conduct rail safety assistance visits. These visits identify safety concerns and enable installations to address them before they contribute to an accident.

During these visits, an Army rail safety specialist can present the Rail Safety for Safety Professionals Course. This course teaches attendees to identify safety concerns that could affect rail operations. It can be requested by organizations that oversee military rail operations. To schedule this training, contact the Transportation Regimental Safety Office. ■

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FYI

According to Technical Manual 4-14.21, Rail Safety, the Transportation Regimental Safety Office investigates accidents. Notifications and investigations are used to identify problem trends in order to develop accident prevention methods for the entire Army rail community. Accidents can be reported by contacting usarmy.lee.tradoc.mbx.rail-safety@mail.mil.

RIDE FOR YOUR LIFE

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



MMP

MOTORCYCLE MENTORSHIP PROGRAM

Check out the USACRC MMP website for some examples of active mentoring programs.

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A Nightmare at Daylight

SGT. JOHN CARKEET IV
U.S. Army Japan

CAMP ZAMA, Japan — The man scanned the trail of red liquid streaming along the roadside.

“At first I thought it was transmission fluid, but I soon realized it was blood pouring from my friend’s body,” he said.

That was the scene that laid before John D. Trent, a Defense Commissary Agency contractor and motorcycle enthusiast. The blue, sunlit sky that blanketed Shizuoka Prefecture, Japan, on the afternoon of July 3, 2016, stood in stark contrast with the mangled man moaning in agony.

“What started as a dream ride turned into a nightmare,” Trent said. “In my 35 years of riding motorcycles in Japan, I had never seen anything like this.”

Trent and his close friend, Makoto Tanabe, joined five fellow motorcyclists from the Hard n’ Fast international riding club for a leisurely ride along Shizuoka prefecture’s picturesque countryside. After several hours traversing through city streets and rural roads, the seven-man group started their trek back to their original meeting location at Sagamiyara.

“We were riding home in a



standard staggered formation,” said Trent, a former U.S. Air Force dependent and U.S. Army veteran who has called Japan home since 1978. “Makoto was riding at a close but safe distance to my right. He began to turn as the

“Blood was gushing out of his leg at an alarming rate,” Trent said. “I knew he had minutes to live while I had seconds to act.”

road banked toward a bridge. That’s when tragedy struck.”

A bridge too close

Trent recalled Tanabe’s 2013 Harley Davidson rolling across a patch of gravel. The tires slipped as they lost contact

with the paved surface. Tanabe, a seasoned rider, regained partial control before the road gave way to a small bridge.

“Makoto’s decades of experience riding bikes likely prevented a head-on collision with the bridge’s side wall,” Trent said.

“He instead bounced off the wall from his left side. It looked to me that his first contact the bridge left him unscathed, but the second hit proved near fatal.”

After his second bounce off the

bridge’s wall, Tanabe managed a controlled stop before he and his bike collapsed on top of each other. Trent stood by his friend’s side less than a minute later.

“I pulled his bike off him only see that his left foot was nearly severed from just above the



ankle," Trent said, recalling the ghastly scene. "The impact from the second hit was so great that the sole of his left riding boot had blown clean off."

Cause and effect

Trent's initial (and later confirmed) conclusion as to the cause of the horrific sight stemmed from the bike's foot pegs.

"His Harley has forward controls, so the foot pegs protrude outward and closer toward the front of the engine," Trent said. "The peg pinned his foot between the bridge's wall and the bike's engine, and the weight of these objects combined with the speed of the collision generated almost enough pressure to cut through skin and bone. His heavy riding boot likely prevented his foot from completely sheering off at the ankle."

Trent quickly overcame the initial shock and took the first crucial step that saved his friend's life.

"Blood was gushing out of his leg at an alarming rate," Trent said. "I knew he had minutes to live while I had seconds to act."

Trent began to take off his belt to use it as a tourniquet when an idea rooted from his days at Army basic training took hold.

"I remembered that I had a bungee cord in my bike's storage compartment," Trent said. "Applying my Army first-aid training at Fort Leonard Wood,

Missouri, I tied it tight around his ankle, and the bleeding fell to a trickle."

After checking his handiwork, Trent used his Bluetooth device connected to his helmet to call 119.

"First responders arrived at the scene within 10 minutes," said Trent. "Makoto was fully conscious during that time. The other riders and I did what we could to alleviate his pain."

The injured rider was loaded onto a medical helicopter and flown to nearby hospital in Shizuoka. Trent's follow-up visits brought some relief knowing his friend was in stable condition with his foot firmly reattached to his ankle.

"He'll be in the hospital for a while," Trent said. "However, I have no doubt we will ride again."

Of men and motorcycles

Trent's passion for motorcycles began at age 7 when he first took hold of the handlebars of his brother's 2.5 horsepower mini-bike. Although Trent has ridden dozens of more powerful models for tens of thousands of hours in the 51 years since, he feels every motorcycle owner should continually strive to be a better, safer rider.

"I believe motorcycle riding is inherently more dangerous than driving a car," said Trent, a proud owner of a Harley XL1200V Model 72. "The tragedy that nearly took Makoto's life could

have happened to any one of us riding that day. There's simply no substitute for proper training and preparedness."

Trent and his fellow Hard n' Fast riders plan to turn their words into action.

"We are working with local hospitals and other riding clubs to develop a first-aid course designed to treat wounds commonly caused by motorcycle accidents," Trent said. "Makoto was lucky in the sense that he suffered an injury that I knew how to treat. If he had broken a bone, punctured a lung or lost consciousness, I can't say for certain that I would have known what to do."

Despite the hazards, Trent encourages every motorcycle enthusiast protected under the Status of Forces Agreement between Japan and the United States to ride together in the Land of the Rising Sun.

"Japan is one of the safer Asian countries to ride," Trent said. "Drivers here are more aware of riders, and the slower speed limits mitigate high-speed collisions."

Trent also feels that riding can forge friendships that break cultural barriers and build international camaraderie.

"Service members should join local riding clubs," Trent advised. "It's a great way to explore Japan, experience its culture and interact with its people." ■

HERE IT COMES

Ride Safe, Ride Long!



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Know Your Threshold

CHIEF WARRANT OFFICER 3 JOEL BARLOW
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Boise, Idaho

I remember my first night vision goggle flight in a UH-60 at flight school. It was a beautiful Alabama night with great illumine and we were at one of the stagefields practicing roll-ons. There were trees at the approach end of the runway and I had to level my approach above the tree tops and then descend quickly past them to have enough room to terminate the roll-on at the departure end of the runway.

As a typical flight school student capable of misjudgment, I didn't descend quickly enough on my second approach and touched down midfield. At that point I had a choice to increase power and perform a go-around or try to commit to the landing and use aggressive braking. I committed to the landing and pumped the breaks to slow down. When it was apparent I would roll off the departure end of the runway, I applied firm constant pressure in an attempt to stay on the improved surface.

We ended up about 10-15 feet into the grass and I was amazed — not because we didn't crash, but because my instructor pilot had his arms folded the entire time. He never took the controls and never seemed worried for a second. I erupted in a kind of



nervous laughter and said, "Wow! Apparently I didn't exceed your threshold for fear of crashing." He chuckled calmly and said, "No, I saw what you were doing and figured it would be a good lesson for you. What could you have done differently?"

He later explained that as time goes on you develop a much more advanced awareness of the aircraft and what you can do with it. He said a small amount of fear caused by a mistake can teach you valuable lessons about knowing your limits and not getting complacent.

As I have accumulated more hours and flight experience since flight school, I have also developed confidence in my abilities as a pilot. I have made mistakes and I have approached

my threshold, but I have always made a conscious effort to make every flight safe. We can't always see far enough ahead in the cockpit to avoid making mistakes. The goal is to make the fewest number of mistakes possible that have the least amount of impact on completing the mission.

One small mistake is capable of producing catastrophic consequences. By having a better understanding of our own limitations, as well as the limitations of the aircraft, we can increase our chances of avoiding those catastrophic mistakes. If you let your threshold for danger grow too large, you may not live to learn from your mistake. ■

HERE IT COMES

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So are **YOU** ready ... or not?



<https://safety.army.mil>



Riding on Empty

GUNNERY SGT. KEVIN L. JONES
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As a kid, I was into sports and played basketball in the park during summers in the Bronx. Back then, my coaches always warned me to stay hydrated. That's some advice I should've carried into adulthood.

I was just finishing my three-year tour as a drill instructor at Marine Corps Base Camp Pendleton, California, and rode my Yamaha R1 as often as I could. I planned to celebrate finishing my DI tour by meeting a friend and riding in the mountains east of San Diego. We scheduled the ride for the first Saturday that August. The temperature was 101 F, typical for a mid-summer day. I was wearing all the proper personal protective equipment, including my motorcycle jacket.

We started riding about 10 a.m. and, before long, I was feeling lightheaded. Although I hadn't drunk any water since the previous day, I just thought this feeling was due to the hot weather. When we stopped to get gas, I bought a soda. Later I'd wish that I'd bought water.

As soon as we resumed riding, I began feeling light-headed again. We were in the mountains going through a series of curves at a pretty good clip when we came upon a two-lane road. My



friend took off down the road, but I decided to slow down and found myself behind an older couple driving uphill at maybe 25 mph. As I was following them, the effects of my dehydration set in, causing me to pass out and hit the guardrail. As I did, I apparently woke up and put out my right arm to catch myself. When the bike fell, it shattered the ulna bone in my right arm and the radial bones in my hand. I didn't realize my arm was broken until I tried moving it. I wouldn't have wished that pain on my worst enemy.

A few drivers stopped to help and eventually called the California Highway Patrol. When I finally stood up, I realize how close I'd come to being killed. I'd only survived because I was going slowly when I hit the guardrail. Had I been going any faster, I'd have gone over the guardrail and down a 175-foot cliff onto some jagged rocks.

I was taken to the hospital, where doctors placed two rods and 14 screws in my arm. It took 50 staples to close the wound. Due to the bones not healing properly, I had to go back for another surgery five months later. Four months after that, I had a third operation where doctors did a bone graft by taking bone marrow from my hip and putting it in my arm. The pain was excruciating.

In the state of California, if you pass out or blackout while driving or riding, your driving privileges are automatically revoked. The Department of Motor Vehicles revoked my driver's license because of my blackout and I had to get a CT scan and be interviewed by a physician. It was later determined that I blacked out because I was dehydrated. After the results of the CT scan and the documentation from the physician, my



driver license was reissued.

As a youth, I was taught the importance of staying hydrated. It was a lesson I had to relearn the hard way as an adult and I'm glad I survived to tell my story. Before I take any long rides now, I not only make sure my bike's fluid levels are where they should be, I make sure mine are too! ■

Keep Your Cool

With all the possible accident causes when riding, it is easy to overlook the danger of becoming dehydrated. Yet, if it's important to stay properly hydrated when you train and fight, why would it be any less important while cruising down the road? Here are some tips to help you ride safely.

- Drink plenty of water before and during your ride. Avoid coffee, tea, soda or sports drinks with caffeine or sugar, as they promote dehydration. However, sports drinks that don't have caffeine or sugar can be helpful in maintaining your electrolyte balance.

- Consider wearing a hydration

system that will allow you to sip water as you ride.

- Exposing your skin to the sun's heat and wind will accelerate dehydration. Instead, wear riding clothing designed to both cover you and keep you cool.

- Wear a vented helmet, which can help keep your head cool.

- Schedule rest stops so you can get out of the heat and into air-conditioning.

- Ride during the cooler parts of the day, such as the early morning or late afternoon.

RIDE FOR YOUR LIFE

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MMP
MOTORCYCLE MENTORSHIP PROGRAM

Check out the U.S Army Combat Readiness Center MMP website for some examples of active mentoring programs.

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



Know the Limits

RETIRED SGT. MAJ. JAMES GAMBLE
2nd Brigade Combat Team, 10th Mountain Division
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During the Gulf War, I learned a valuable lesson that I shared with every unit I was assigned to afterward: While technological advancements can help make our jobs as Soldiers a little easier, we must fully understand the capabilities and limitations of new equipment. Here's what happened to us.

As a part of the 101st Airborne Division (Air Assault), which was tasked with defending Saudi Arabia during the buildup to the ground war to liberate Kuwait, my anti-armor team was deployed into the desert as part of a defense in depth. Our TOW weapon system had a maintenance issue, so we were going to have to drive a HMMWV across 25 miles of desert terrain to a maintenance unit located to our rear.

During the trip, we traversed a variety of terrain that included low hills, sand dunes and odd rock formations. We were operating in this area for a few months, and the three other members of my crew and I thought we had figured out this desert-mounted land navigation business. We arrived at the maintenance area without incident early in the morning and spent all day getting our equipment repaired.



Just as the sun was setting, we departed for the return trip to our assembly area.

We didn't think the trip back would be that difficult because of the landmarks we noticed on our way to the maintenance repair area, as well as a well-defined vehicle trail we followed. In fact, the first part of the journey passed by without difficulty, and the boredom soon had the two Soldiers in the back of the vehicle snoozing in their seats. We were driving 15-20 mph and wearing our NODs. The night was clear, but the moon hadn't risen yet. We still had good conditions for driving under NODs, and my driver was very experienced with their use.

As we followed the trail back toward our assembly area, we noted what we thought were the landmarks we saw during our earlier trip. However, as we

began to climb what appeared to be a small hill, both my driver and I became uneasy about our route and discussed whether we'd driven down any similar grades on our journey to the maintenance area. Since neither of us recalled any terrain like this, we decided to stop at the top of the hill and look around. This proved to be a lifesaving decision because the trail ended at the top of the hill; on the backside was a steep, 200-foot cliff.

When we took off our NODs and looked around, we discovered we had lost our trail and had actually climbed one of the landmarks we had used to navigate to the maintenance area. It quickly became apparent to us that we had depended too much on the NODs. The things we thought were our landmark hills were just low rises that



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appeared larger under the limited visibility range of the NODs.

We backtracked to the main trail and for the remainder of the trip periodically checked our route without the NODs on. We wanted to make sure what we were seeing with the NODs

was really one of our landmarks. Eventually, we made it back to the assembly area safe and sound.

After we shared our lesson learned with our platoon, we set a policy to identify landmarks at 400 meters or closer when driving with NODs. We also stopped

periodically to check our route with the NODs turned off. Like other equipment, NODs provide great capabilities to our Soldiers, but we have to understand their limitations to use them safely. ■

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Dangerous Conversations

CHIEF WARRANT OFFICER 3 JAMES MCLAIN

The B-17 bomber was closing fast as I made a swift right turn to evade the heavy iron climbing toward my airplane. It happened when I was on a very routine mission flying a Cessna 182 as a law enforcement pilot.

The flight was a surveillance and photo mission for another state agency that occasionally used our aviation services. I'd flown on these types of missions in the past and had only one passenger, who served as the observer and photographer. He was a nervous flyer who would talk nonstop from taxi to landing. As an accommodating pilot, I would let him gab — even though he was really distracting and talked over air traffic control, oblivious to any conversation other than his own.

The mission went well and I turned the airplane toward my home airfield. The day was spectacular with light winds and clear skies. I called the tower controlling the airspace and informed the controller I was ready to clear to the north. The controller answered and sent me on my way.

When I was 10 miles from my home field, I called the tower for landing clearance. The controller responded and cleared me into the airspace with instructions to enter the left downwind for



Runway 20. I acknowledged the instructions as my passenger simultaneously described how he was going to work on his boat over the weekend.

At about 8 miles, I started a gradual descent to the field. As I

“Lessons learned on this flight taught me to focus on situational awareness on all flights.”

finished scanning my instrument panel, I looked out and observed a B-17 bomber climbing into my flight path. I think my brain blinked for a second because I had never before seen a B-17 flying directly at me. So with a quick evasive maneuver, I turned to the right and kept the bomber

in my sight until it lumbered past me, oblivious that they had just passed my airplane.

As I turned my airplane away from danger, I immediately analyzed what had just happened. How did a B-17 bomber get within

500 feet of my airplane without a call from the tower? How did I not hear the tower clear the bomber for takeoff? I knew the bomber was giving rides at my airfield and missed the call.

When I scanned my radio panel I immediately knew what led to this dangerous situation. The tower frequency I thought I had been talking on was loaded in the stand-by position. The active frequency was still tuned to the last tower I had been working during the mission. Since the



last tower was only about 25 miles from my home field, my call to the wrong tower was loud and clear.

The other consequence of having the wrong frequency tuned was missing the departure of the B-17 that had just careened past my airplane. To recover, I quickly called the tower from where I had departed and canceled my request for landing, followed by a request to clear the airspace. Once I cleaned up that mess, I called my home tower and calmly requested clearance for landing. The rest of the flight went as advertised.

When I reviewed the flight, I identified the links that almost completed an accident chain that day.

1. The controller working at the tower where I flew the mission also worked at my home field on a regular basis. So when I erroneously called the wrong tower, his familiar voice did not alert me to my mistake.
2. I fly department aircraft single pilot, so I am used to a quiet cockpit. My talkative passenger decimated the quiet cockpit on this flight.
3. My home airport and the mission airport both have Runway 2 and 20 as the primary runways. Both airports were using 20 on the mission day. When I was cleared to enter the pattern for Runway 20 by the wrong tower, I was given what I expected at my home field.

The ideal weather conditions helped me see the B-17 and break this accident chain. Lessons learned on this flight taught me to focus on situational awareness on all flights. This especially applies to "routine" flights that can lull a pilot into a complacent wasteland. And, when converging with a B-17, always give the right of way! ■

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Safe Waters COMPILED BY THE KNOWLEDGE STAFF

I always considered myself a good swimmer. Growing up in Michigan, I began swimming in Lake Superior at an early age and swam in pools, lakes and oceans all my life. One fine day on a beach in Hawaii, however, changed my view on my swimming abilities.

While “PCS-ing” from Korea back to the U.S., my family and I decided to stay a week in Hawaii for a much-needed vacation. While there, my 15-year-old daughter begged me to take her to a beach to snorkel like we had in Guam, so I planned a trip for us to the northwest side of Oahu, near the North Shore.

It was early afternoon when we left, so we stopped to grab lunch and then hit the beach. When we arrived, we saw the locals were surfing on waves between 4 and 6 feet tall. It looked like a lot of fun, but after lunch, I was feeling full and tired. I wasn't sure I would enjoy swimming on a full stomach, but I was going to try and have some fun while at this beautiful beach.

My daughter wanted to swim



to a rock about 40 yards out, so we jumped into the water. Having never been to Hawaii, we did not know the strength of the trade winds in December. As we made our way out, it became apparent that swimming in the Pacific with these waves was completely different than swimming in the local pool.

I swallowed about three mouthfuls of seawater and felt my lunch becoming heavier and heavier. I was getting nervous and my heart rate dramatically

increased, which caused my breathing to accelerate and lose rhythm. For the first time in my life, I was scared in the water and decided to turn around and head back toward the beach.

At the time, I was only about 30 yards from shore; however, as I found out later, most drowning deaths occur just 20 feet from shore. I was sure I could make it and rolled over and started using the backstroke, keeping my head out of the water and trying to slow my pulse to a comfortable level.

As soon as I turned back, I heard my daughter yell, “Dad!” Now I was frightened for her — although she is also a good swimmer. She had pulled ahead of me on our way to the rock and was now only a few feet from it. How was I going to save her in these rough seas when I was having trouble myself?

Did You Know?

The greatest safety precaution to take is to recognize the danger of rip currents and always remember to swim at beaches with lifeguards. The United States Lifesaving Association has calculated the chance that a person will drown while attending a beach protected by USLA-affiliated lifeguards at 1 in 18 million.

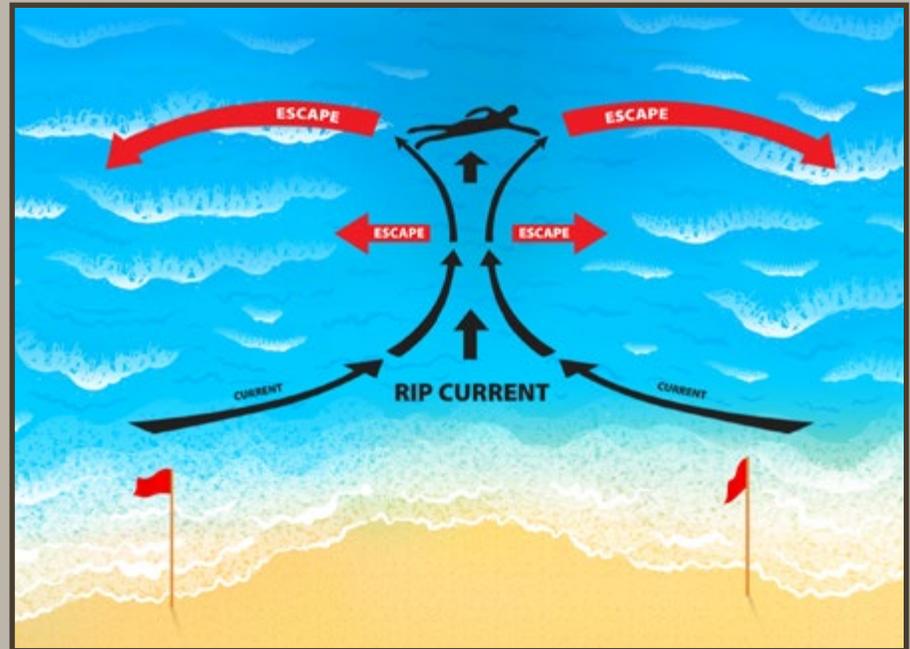


Fortunately, she was only yelling at me to keep on swimming toward the rock. She didn't realize I was in trouble. I yelled for her to come back to shore with me. In typical teenager style, she complained that she was already to the rock, but she eventually followed me. I was exhausted when we made it back to shore and felt like collapsing on the sand. I was relieved we had made it back, although my daughter was still complaining that I made her come back to shore.

I've never been scared in the water before, but this trip was a good lesson for me. I realized swimming in the ocean is totally different than swimming in a public pool. I also learned that you should swim only when you feel comfortable and not push yourself beyond your limits.

The day after our swimming scare, I took my daughter to a calmer beach. The conditions there were more favorable for swimming, and I ate my lunch after getting out of the water. Overconfidence in my abilities almost cost me my life, but it left me with a valuable lesson. I will never underestimate the ocean again. ■

Breaking the Grip of the Rip



Rip currents are powerful, channeled currents of water that flow away from shore. They typically extend from the shoreline, through the surf zone and past the line of breaking waves. Rip currents can occur at any beach with breaking waves, including the Great Lakes.

The United States Lifesaving Association estimates more than 100 people die each year on U.S. beaches due to rip currents. Rip currents also account for more than 80 percent of rescues performed by beach lifeguards. The National Weather Service offers the following tips on how to survive a rip current:

- Don't fight the current. It's a natural treadmill that travels

an average speed of 1-2 feet per second, but has been measured as fast as 8 feet per second — faster than an Olympic swimmer.

- Relax and float to conserve energy. Staying calm may save your life.

- Do NOT try to swim directly into to shore. Swim parallel to the shoreline until you escape the current's pull. When free from the pull of the current, swim at an angle away from the current toward shore.

- If you feel you can't reach shore, relax, face the shore and call or wave for help. Remember: Wave and yell ... swim parallel.



There You Were ...

CHIEF WARRANT OFFICER 2 JARED LOOMIS
Virginia Army National Guard

We've all told stories that start with, "There I was ...". This story, however, doesn't begin like that. Whether you were right or left seat with 3,000 hours of experience or fresh out of Mother Rucker, most of us have been in this situation. At the very least, all of us have witnessed it. This time, the story starts with, "There you were ..."

Here's the setup: A seasoned instructor pilot and a new pilot are signed up to fly. Maybe they've already met, maybe they haven't. Maybe the PI has heard rumors about the IP; maybe the IP has heard rumors about the PI. Maybe you start off with a little table talk, or maybe you jump right in to the brief. At some point along the way, the IP asks a question and the PI doesn't have a clue what the answer is. Maybe the IP gives the PI a little ribbing. But then there's another question that stumps the PI. And another. And maybe even one more.

The two walk out to the flight line to preflight, during which the IP asks a few more questions that the PI can't seem to answer. At this point, the PI may even know the answer but just can't spit it



out. The IP, on the other hand, is starting to get a little annoyed that this "qualified" PI doesn't seem to have learned a thing in flight school. Both are starting to get frustrated — to say the least.

During the start-up sequence, the PI is a little slow finding

as far as asking the crew chief some of the questions the PI can't answer. The crew chief might even show up the PI.

At some point in the process, the PI isn't answering any of the questions any more. It's not due to a lack of knowledge,

but because he's so frustrated at himself and the IP. They soon come to the conclusion that the less they talk, the sooner the whole ordeal will be over.

So there you were, an experienced aviator and a new pilot, sitting in a hostile cockpit, ready to take to the skies. Except you no longer have a PI; the PI has effectively transformed into the most dangerous clam in the world.

We are required to live and

"There may be times when we all need to take a step back, address the issues at hand and start over."

certain switches or remembering his abort-start criteria. There may even be a crew chief listening to the whole thing. The IP is now starting to become impatient, and maybe even makes a few comments that frustrates the PI even more. The IP might go



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breathe aircrew coordination — if not by regulation, at least by this little thing called survival. We teach it, brief it and even require an annual refresher — a meeting at which we all sit around, listening and telling stories and nodding in agreement at how important effective crew coordination is in our occupation. I don't think I've ever flown with an aviator that didn't agree on, or stress the importance of, effective communication in the cockpit. But if that's true, then how can the above scenario play out?

By no means am I suggesting IPs lighten up on PIs. We operate in a high-stress, dynamic environment. It would be a disservice to not apply some additional stress in training. Additionally, I'm not suggesting that new PIs need to find themselves a new career path if they find themselves in the above

scenario. We all have our bad days and bad flights.

Might I suggest a middle ground? There may be times when we all need to take a step back, address the issues at hand and start over. Aircrew coordination is more than just a theory on how you could potentially have a cockpit full of butterflies and unicorns holding hands while singing

"Kumbaya." We preach a world where we live and die by effective aircrew coordination. My simple suggestion is less preaching and more living. So there you were. How is your story going to end? ■

HERE IT COMES Are you ready to crank?

READY ... OR NOT?

Ready ... or Not is a call to action for leaders, Soldiers, Army Civilians and Family members to assess their "readiness" for what lies ahead—the known as well as the unknown.

Throughout our professional and personal lives, events happen all around us. We are often able to shape the outcome of those events, but many times we're not. Navigating life's challenges is all about decision-making.

So are **YOU** ready ... or not?

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HERE IT COMES

Frontal Collisions

In a collision, you can't escape the laws of physics. Always leave room to maneuver.

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Unrestrained Flying Object

CHIEF WARRANT OFFICER 2 BILL HUTCHENS
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82nd Attack Reconnaissance Battalion
Fort Bragg, North Carolina

It was just after morning formation and I was on my way to an appointment. As I pulled out of the airfield, I found myself behind a very slow driver. We stopped at a red light and, when it turned green, she just sat there. I tapped my horn and she finally began moving. I followed her through a left-hand turn and, because I felt she was driving erratically, passed her. I glanced in my rearview mirror and I saw her come to a complete stop for a blinking yellow caution light.

I continued down the road and stopped at a red light. When I glanced again in my rearview mirror, I saw her quickly approaching. I realized she wasn't going to stop. I looked down and saw I wasn't wearing my seat belt. All I could think to do was lean back in my seat and prepare for the impact.

The woman never braked and slammed into me at full speed, causing my air bag to deploy. However, without my seat belt to restrain me, my head hit the air bag and went around its right side and struck the dash next to the stereo. To make matters worse, the previous night I'd tried to remove my truck's stereo. Unfortunately,



the metal rods I'd been using to pry the stereo out were still sticking out of its sides. One of the metal rods scraped the left side of my forehead, temple and ear and caused a nasty gash. Looking back, I realize how lucky I was that I did not lose an eye.

I got out of the truck, my

“Most importantly, before you back out, buckle up.”

adrenaline pumping so hard I didn't notice the gash or the blood coming out it. When I went back to check on the lady who hit me, her teenage daughter got out. She immediately began apologizing and told me her mother was taking several prescription drugs.

My truck was totaled. When

she rear-ended me, she pushed me into the vehicle ahead. Fortunately, no one was injured and they only suffered some minor damage to their rear bumper. After the police arrived, they filled out the accident reports and ticketed the woman.

An emergency medical technician cleaned the blood off the side of my head and asked if I needed an ambulance. I told him I didn't, but later I had my wife take me to the

emergency room. Although I was extremely sore for a few weeks after the accident, I was thankful my injuries were so minor.

From a safety standpoint, there were many things I should have done differently. I should have put my seat belt on immediately after I got into my vehicle. If I'd been wearing it, it would have kept me



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in the proper position to benefit from my air bag. Instead, I became unrestrained flying object headed for a nasty collision with the dash. When I noticed the woman was a hazard on the road, I should have immediately called and reported her. That might have caused her to be stopped, which would have prevented the accident. Finally, leaving sharp objects protruding from the dash or lying loose inside a vehicle is never a good idea. In a crash, they can cause serious — even deadly — injuries.

I learned from my mistakes so as not to repeat them. Before you get on the road, make sure you've done all you can to protect yourself and others riding with you. Most importantly, before you back out, buckle up. You won't have time to reach for your seat belt when an approaching driver's grill suddenly fills your rearview mirror. ■

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RELIABLE
TRUSTWORTHY

BE a SMART SOLDIER

Be **SMART**. Protect yourself and those around you.
The Army was built on discipline, leadership and regulations, and the regulation says someone has to ensure everyone in the vehicle wears a seat belt.

Be that **SMART** someone.
Learn more at <https://safety.army.mil>



Throwing Shade

CHIEF WARRANT OFFICER 2 JOHN D. CURATELLA
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Joint Base Lewis-McChord, Washington

It was the last month of our deployment in Afghanistan and things were pretty routine. My back-seater and I were sitting in our Apache on Mustang Ramp in Kandahar, Afghanistan, preparing for an air assault. We were on the auxiliary power unit, ensuring all of our systems were functioning, when I looked to the right and saw something that caught my eye.

I asked my back-seater if he also saw it and, sure enough, he did. The aircraft next to us had a situation with sun shades, which protect the cockpit from extreme heat, flying all around the helicopter and dangerously close to striking the rotor blades before the crew chief was able to secure all of them. Luckily, a mission-stopping incident was averted and the crew was able to continue on time. I remember thinking, "What just happened and how can I ensure it doesn't happen to my battle buddies or me?"

With temperatures reaching 114 F, it was standard to ensure the sun shades were placed back in the aircraft after every flight. On a planned mission we had time to preflight, remove the shades and secure them in the storage bay. While performing quick-reactionary force duties, however, we would preflight at



the beginning of our shift, run-up the aircraft to ensure there were no deficiencies and then place the sun shades back in the windows to keep the cockpit temperature down. Once called out for a QRF mission, we would quickly begin our run-up while our crew chief secured all the shades to save valuable time in responding to the situation.

On this day, the crew next to us removed the shades and proceeded to "spin blades" without verifying all of them were secure. That sent the shades flying — literally. They were in a hurry and that mistake could have caused damage to the aircraft as well as delayed their reaction time to support the Soldiers on the ground.

This incident reminded me of something our commander

reiterated at every meeting, "Don't become complacent." Here was a perfect example. Trying to rush instead of taking 30 additional seconds to confirm the shades were secure could have damaged the aircraft and caused the crew to miss the mission. There will be countless times in our Army aviation careers we feel rushed and timelines are critical, but it is our duty to not skip steps and become victims of complacency. ■



Into the Woods

STAFF SGT. TRAVIS HAUSLER
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During the land navigation training block, students are encouraged to share with instructors any questions or concerns they have about the exam. Some students ask questions due to their lack of navigation experience. In those cases, the instructors recognize the students' lack of confidence and provide additional training to circumvent a potential failure in the course. Other students, however, might not ask any questions and have no problem passing the written and pinpoint exams. But then there is another group of students — Soldiers who have problems but don't ask questions. They are unwilling to admit they are weak in certain areas, which often results in a failure on pinpoint day. Here's an example.

It was a normal start to a routine land navigation pinpoint exam. The exam would include navigating through a heavily wooded training area to find four out of six points during one hour of darkness and four hours of daylight. In the days leading up to the exam, the students received four days of classroom and practical training — to include written exercises and instructor-led walkthroughs. The students were trained to use a compass and protractor and to read a map; how to navigate without a



protractor during low-visibility situations; and everything else that encompasses navigating any type of terrain at any time of day during any situation.

Before starting the pinpoint exam, students were given their boundaries, which included hardball roads and a river for the northern boundary. They were advised that if they got lost in the woods, head to a cardinal direction and reorient themselves. They were also instructed to use the roads on their return. In addition, the students were told that just north of the boundary river was a small-arms impact area. They were then released to complete the exam.

While the students were on the course, the instructors started our current safety plan of roving the boundaries every half-hour to

ensure no one had walked outside the training area. This plan had been very successful for the past eight years of training operations. After four hours of the pinpoint exam, most of the students had returned to be evaluated, leaving only a few remaining in the training area. At the five-hour completion deadline, we still had not received all of the students, so we started conducting our search-and-recovery mission.

Search-and-recovery had become an easy task over the last few classes due to some new GPS trackers our unit had received. We were able to find all but one student in the training area, which meant we needed to increase our search area. We were shocked to find the remaining student had crossed the northern river and hardball road and wandered into



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the arms impact area, which is surrounded by “KEEP OUT” signs.

We immediately notified range control, who told us 26 ranges where live. In fact, all of the ranges were converging on this one location. After informing range control there was a student in the impact area, all small-arms and heavy-weapon ranges were immediately shut down. In total, 30 ranges were ordered to cease fire.

We continued to carefully monitor the student’s position on the GPS tracking system

and were getting worried. Although we knew his location, we noticed he was no longer moving and believed he might be injured or, even worse, dead.

Range control coordinated with EOD and sent them to our location. We also noticed there was a CH-47 conducting operations in the area. After an hour of coordinating with EOD and the air asset, we were able to extract the student from the range without injury. When questioning the student about his whereabouts, he said he had

no idea where he was on the course. He also thought it was standard protocol to be picked up by a helicopter if you were lost. We then asked if he was aware he’d been in the impact area. He said he had no clue.

While no one was injured, this whole event could have been prevented had the Soldier just put his ego aside and asked questions. As instructors, we are here to help. Fortunately, this Soldier’s mistake didn’t cost him his life. ■

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REDUCE ACCIDENTAL LOSS.
INCREASE COMBAT POWER.**

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Paying for Life

NAME WITHHELD BY REQUEST

Sometimes you spend the rest of your life paying for a hard lesson learned. My son, Bryan, was only 14 when he was permanently injured in an all-terrain vehicle accident. At that time, I had no idea riding an ATV could be so potentially dangerous. After all, if it was dangerous, they wouldn't let kids ride them, right?

Bryan frequently went to his friend's house where he would join several other boys riding their ATVs during the afternoon. He enjoyed that and often talked about how much fun he had. One evening after giving Bryan permission to spend the night at his friend's house, we received the phone call every parent dreads. We were told Bryan had been in an accident and was rushed to the hospital.

When we arrived, hospital personnel were wheeling him into one of the emergency rooms. Shortly thereafter, doctors told us he would require emergency surgery for a head injury, along with internal injuries. It felt like



the clock had stopped as we waited during the surgery. Finally, we were called in to talk with the surgeon. Although the news was relatively good — Bryan would survive — we were told he'd lost the vision in his left eye. To me, that was devastating news.

We found out after the accident that Bryan and his friends had been riding their ATVs along a dirt road. As he rode, Bryan's ATV hit some loose gravel on the side of the road and careened into a culvert and flipped. When

he landed, he apparently struck his head on a pile of rocks. It's a wonder he even survived.

Bryan remained in the hospital for more than a week before we could bring him home. His recovery took months and it was hard for him and us to accept the fact he'd never see again out of his left eye. For years afterward, Bryan exhibited behavioral and substance abuse problems. Although I'll never know for sure, I've always suspected his head injury precipitated his bad behavior.

I can't turn the clock back and undo the damage my son suffered that day. All I can do is share what I learned so someone you care for won't have to pay the price Bryan did.

First, it's important to understand ATVs aren't toys. They can be very powerful and

Get Smart

Did you know there is a nationwide organization dedicated to making you the safest and most skillful ATV rider you can be? The All-Terrain Vehicle Safety Institute can take new riders and train them to handle their ATVs without having to pay the price of

bumps, bruises or broken bones in the process. To check into this training, just go online to <http://www.atvsafety.org/>. There you'll be able to take an online course, enroll in hands-on training with instructors and watch some entertaining and informative videos.



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fast, and no one should ride them without first having the proper training. Had I ensured Bryan was trained to ride, this accident might have never

occurred. Second, helmets aren't just for motorcyclists; they're for ATV riders too. Had Bryan been wearing one, his injuries would have been much less serious

and he'd still have his vision in his left eye. Unfortunately, that's something he'll never get back. ■

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



Knowledge is looking for contributors in the field to provide us with ground, aviation, driving and off-duty safety articles. You say you've never written an article for publication? Don't worry — our editorial staff is here to help. Just write about what you know and they'll take care of the rest. By sharing your story, you might just save someone's life or an expensive piece of equipment.



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HERE IT COMES

Family Disaster Plan

IF YOU EVACUATE

Take with you:

- Medicines and first aid kit
- Flashlight, radio and batteries
- Important documents and cash
- Blankets and extra clothes
- Personal sanitary items
- Any additional items you feel are needed

September is National Preparedness Month

During a disaster is no time to make a plan. Think ahead and be prepared.

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