OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY

MOTORCYCLE SAFETY MONTH

WHEN BIGGER ISN'T BETTER 1.4

DIY ELECTRICAL DANGERS p. 6
MOTORCYCLE MODIFICATIONS p. 16
CREW COORDINATION p. 28











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KNOWLEDGE

OFFICIAL SAFETY MAGAZINE OF THE U.S. ARMY







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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.

THIS MONTH ••• NITENTS

- 4 When Bigger Isn't Better
- **6** A Shocking Surprise
- 8 One Simple Word
- 10 Never Sacrifice Training
- **12** Knowing Your Limits
- 14 Small Step, Big Consequences
- 16 If it Ain't Broke
- **18** Cover Your Cranium
- **22** Who's in Control

- 24 Attack of the Water Buffaloes
- **26** Keep Your Eyes on the Road
- 28 Look Out for the Other Guy
- 30 Good Training Pays Off
- **32** Diver Down
- 34 A Cross Country Flight From Hell

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ometimes you'll hear a new rider rationalize buying a powerful sport bil with the philosophy, "I might as well buy what I am going to end up with COMPILED BY THE KNOWLEDGE STAFF With the philosophy, Thinght as well buy what rull going to end up However, lacking the experience and maturity to ride these machin safely, new riders could end up dead on the road beside them.

Staff Sgt. Edward Knight saw the police cruiser's flashing lights in the street's oncoming northbound lanes. He'd opened up his 2015 Suzuki Hayabusa after pulling away from a stoplight and was doing 70 mph on a 35-mph city street. This could be a big-money ticket. He looked over his left shoulder, checking if the cruiser had turned to chase him.

Deputy James Farrell had clocked Knight at 70 mph and flashed his lights, warning him to slow down. He couldn't give chase, as he was transporting an arrestee in the backseat. In his rearview mirror, Farrell saw Knight looking back. What he saw next, though, he will never forget.

The events unfolding in Farrell's rearview mirror had begun two days earlier. Knight's unit had conducted a no-notice private motor vehicle inspection before the three-day weekend. As Knight went through the inspection lanes, an NCO asked him if he had a motorcycle. He replied that he'd bought a Hayabusa four months earlier.

Knight's first-line leader, Sgt. 1st Class James Noble, knew about the bike, as he'd ridden it from the dealership to Knight's home. Knight had completed his Motorcycle Safety
Foundation Basic RiderCourse 18
days before buying the bike but
wasn't comfortable trying to ride
it home from the dealership. He
had his license and insurance, but
it wasn't until the PMV inspection
that his company commander and
first sergeant learned he owned the
bike. Before leaving for the long
weekend, Knight provided copies
of his MSF training certification,
license and insurance to his unit.

That evening, Knight picked up a friend, Sgt. Tim Lawler, and brought him back to his apartment for a barbecue. Lawler's car was in the shop for repairs, so Knight lent him his car to use in the meantime. After all, Knight had his bike as backup transportation. He typically used it for short runs around town, especially during good weather.

The next day about noon, Lawler dropped by Knight's apartment and picked him up. The two lunch and did some shopping. They returned to Knight's apartment about 5 p.m., where Lawler dropped off his buddy and drove home. Roughly an hour later, Knight got on his motorcycle and rode to Lawler's apartment. There, he planned to meet a friend, Gina Moore, and go out to dinner.

Moore arrived about 6:15 p.m. Since it was more convenient to ride in her car, Knight parked his motorcycle and left his helmet and riding gear inside the apartment. Lawler had separate plans to go clubbing with friends from his unit. When Knight called him later to see if he was home, Lawler was headed to another club and described where he'd hidden his spare apartment key. Knowing where the key was, Knight could retrieve his helmet and riding gear from his friend's apartment.

It was about 12:30 a.m. when Knight and Moore arrived at Lawler's apartment. For whatever reason, Knight decided not to pick up his

"IN HIS REARVIEW MIRROR, FARRELL SAW THE HAYABUSA'S TAIL LIGHT COME ON BRIEFLY AS KNIGHT HIT THE BRAKES, BUT IT WAS TOO LATE."

helmet and riding gear. Mounting his motorcycle, he left for his place with Moore following in her car. The drive took them through a fairly welllit commercial part of town, where they stopped for a red light. Knight was in front and, when the light turned green, rapidly accelerated down the street's southbound lanes. He'd gone about 600 yards before passing Farrell's police cruiser in the oncoming lanes and seeing him flash his emergency lights. Knight glanced over his left shoulder to see if the deputy had turned to follow. He was still looking back when the street gently curved to the left and his front wheel struck the curb.

In his rearview mirror, Farrell saw the Hayabusa's tail light come on briefly as Knight hit the brakes, but it was too late. The bike's rear wheel came up as the bike began tumbling end over end with Knight still onboard. The bike and rider hit a street sign, shearing it in half before slamming into a pair of vans on a rental lot. The impact threw Knight off the bike and onto the street's right lane. Unprotected by a helmet, his head suffered massive trauma as it struck the vans, sidewalk and street. It was only 107 days since he'd bought the Hayabusa. Now he lay dead on the street just 14 feet away from it.

Why did this accident happen?

• Knight diverted his attention from the roadway while riding at high speed.

- He operated his motorcycle while impaired by the effects of alcohol (his post-mortem blood alcohol concentration was .11).
- Although his first-line supervisors knew he had a motorcycle, they never formally engaged him about the requirements for safely operating it, including always wearing his personal protective equipment.
- Lacking a helmet, he suffered injuries he could not survive.

How can we prevent accidents like this?

- A super sport bike is a poor choice for a first motorcycle.
 The learning curve is too steep for new riders to survive their mistakes and learn from them.
- Soldiers should never operate their motorcycles or drive PMVs after drinking.
- Speed kills by increasing impact severity and reducing reaction time, especially when the rider is distracted and fails to see a problem until the last second.
- Regardless whether they own a motorcycle, leaders need to know the requirements for safe motorcycle operation. Firstline supervisors must enforce the standard for their Soldiers and set a positive example on and off duty.
- Wearing protective gear is not an option. Regardless of state laws, PPE must be worn 24/7. ■

s a full-time technician for the National Guard, I supervise two maintenance shops. I have four employees in the communications/ electronics shop and five in the calibration shop. Electrical safety, grounding, CPR, first aid, automated external defibrillators and lockout-tagout of electronic equipment are important subjects in my workplace. Every day, the senior member of the team starts with a safety brief touching on these issues and more. Unfortunately, some of us don't always approach our work at home with the same safety consciousness.

CHIEF WARRANT OFFICER 4 JAY HEDKE Kansas Army National Guard Topeka, Kansas

A few years ago, my kids complained about the hot water always running out during their showers. I figured I could solve the problem by purchasing a larger water heater. Our current one was getting old and hard to drain, so replacing it probably wasn't a bad idea. I decided to upgrade our 30-gallon tank to a 50-gallon model and changed it out on a weekend.

A few days later, the kids started complaining again about the hot water. I blew them off, thinking they were just making it up. There was no way the new water heater could be worse than the old one. After all, it was newer, 20 gallons larger and, in my mind, better. The following Saturday, it just so happened that I was the last one to jump into the shower. I discovered the kids were right. The shower was out of hot water and I had to wait a while for the heater to warm it.

Later that day, I grabbed my multimeter to see if I could figure out the problem with the new water heater. It had two heating elements in the tank — one located about a foot from the ground and the second a couple of feet higher. I didn't bother to read the operator's manual; I just took off both heating element covers and started checking for voltage on the leads.

I had voltage on the bottom element, but not the top element. I could not figure out why. I thought both worked at the same time to heat the 50 gallons of water, but that was not the case. I

leaned against the tank to read the operator's manual when the wiring circuit cycled to the top element, hitting me with 220 volts of electricity. The shock threw me across the utility room and into the wall. My wife heard the ruckus all the way upstairs and came running down to investigate. Fortunately, I wasn't seriously injured.

So what should I have done to prevent this accident? In the maintenance shop, we ensure procedures are in place to limit the amount of stored energy in a piece of

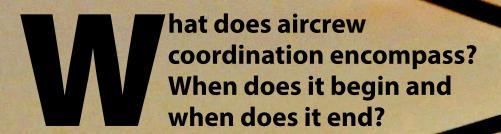
DID YOU KNOW?

The Electrical Safety Foundation International has designated the month of May as National Electrical Safety Month to raise awareness about critical electrical safety topics.

equipment under testing. We use lockouttagout procedures or make sure the two-man work rule is in place. I did not do that at home. I checked a live circuit not knowing how it was supposed to work and, as a consequence, got shocked.

In the end, I changed out the top element and we haven't had any more trouble with hot water in our house. But this accident served as a wake-up call that we can't be lackadaisical in our everyday lives. Those procedures that keep us safe at work also must be used at home.





ONESIM

We had just taken off on a four-hour night vision goggle airfield security mission. I was the pilot in command and air mission commander for a team of two OH-58Ds. We were just weeks from going home, so to lower our risk of losing anyone to an accident, our company safety officer had recently coordinated several training classes emphasizing aircrew coordination.

Airfield security was a mission we had performed a hundred times before; however, this time, there were problems right from the start. As soon as we took off, one of the radios broke squelch and wouldn't stop. I couldn't understand my co-pilot or my wing man. A minute later, we were at mission airspeed and altitude. A few seconds after that, we were flying over a

well-lit area that washed out our goggles. At this point, I felt I was experienced enough to recognize we were maneuvering into a classic accident situation, so over the radio noise I told my co-pilot, "You fix the radio, call off with OPS and I'll fly the aircraft." Unable to understand his response, he gave me a thumbs up.

Even though I was concentrating on basic flying, I realized I was rapidly getting behind the aircraft with the radio hissing and washed-out goggles. In all the confusion, I heard one word: wires. My wing had calmly and clearly transmitted that one word and, for whatever reason, it sliced through the interference. I didn't see any wires; regardless, I immediately initiated a smooth, 500-foot-perminute climb. A few moments later, the radios cleared and we passed about 50 feet over a huge set of wires.

The rest of the mission went smoothly. Hours later at the chow hall, I realized I had learned a valuable lesson. Even though the crews had more than 9,000 hours of total flight experience in both cockpits during this close call, my wing was the only pilot with total situational awareness. He recognized that accidents are a chain of related events and broke the chain with one simple word. By doing so, he prevented what could have been two fatalities and a destroyed aircraft. Aircrew coordination suddenly became much more than a required class to improve Army aviation operations.

So what does aircrew coordination encompass? It's not only for your aircraft, but also extends to the other aircraft in the flight, ground element, air traffic control and others. When does it begin and when does it end? It starts at the mission brief and ends in the chow hall. I had both questions answered in a close call while in Irag.

PLEWORD

CHIEF WARRANT OFFICER 4 DAN POPPLETON 2nd Squadron, 17th Cavalry, 101st Airborne Division Fort Campbell, Kentucky



NEVER SACRIFICE TRAINING CHIEF WARRANT OFFICER 4 KENT SHEPHERD Ground Division Directorate of Assessments and Prevention U.S. Army Combat Readiness Center Fort Rucker, Alabama

n the spring of 1998, I was a 63T Bradley Fighting Vehicle mechanic who had just been promoted to the rank of specialist. We were approaching the end of a two-week training exercise when the transmission in our medic vehicle, an M113A3, began to malfunction. My command decided to send the vehicle back to our battalion motor pool at Camp Casey, Korea, due to the complexity of replacing the transmission.

Upon arrival back at our maintenance facility, I worked overnight with another mechanic to complete the job. The sun was beginning to rise as we finalized the repairs and lowered the power pack into the M113A3. We were exhausted from two weeks of training and then being awake all night. Now that the job was completed, our final step was to take the vehicle for a road test.

I deferred the road test to the other mechanic and grabbed all of the paperwork to have my

clerk change the transmission serial number in the computer. As soon as the paperwork issue was settled, I walked outside and was immediately met by the other mechanic, who told me the new transmission had issues. This was the last thing I wanted to hear.

I asked the mechanic what was wrong, hoping it was something we failed to connect and could rectify quickly. He replied, "I drove it around and the track will turn right, but it will not turn left."

"I FELT MY TEETH FLYING OUT OF MY MOUTH AND DOWN MY

THROAT. "

He then asked if I would drive the vehicle to see if I could get the transmission working. I confidently replied, "No problem." I walked over to the M113A3 to check the linkages to see if we had made a mistake. Satisfied everything was connected properly, I climbed inside to take it for a spin around the motor pool. Once inside the M113A3 driver's hatch, I quickly looked back at the hatch cover and realized the safety pin wasn't installed when the other mechanic took it on the test drive. This pin is an important part of the hatch safety mechanism and prevents the hatch from coming loose during operation. I was thankful I caught this mistake and quickly slid the pin into the latch and started the test drive. As I pulled forward, I realized my buddy was correct and the track would not steer left at all. I tried everything possible to move the controls, hoping the hydraulics inside the transmission would start to work and allow the vehicle to steer properly. Frustrated, I accelerated to about 15 mph and firmly pressed the brakes to see if that would help. I suddenly felt the impact when the hatch cover came loose and smashed me in the back of

I felt my teeth flying out of my mouth and down my throat. Shocked and dazed, I started to climb out of the driver's hatch while the vehicle was still in motion. Several Soldiers who were standing nearby leaped onto the track, locked the parking brake and lowered me to the ground. I could see by the looks on their faces that my injuries were serious. Even the medic that attended to me grimaced in horror and shouted a flurry of expletives when he saw my severed lower lip hanging below the bottom of my chin and a good portion of my upper teeth broken off into jagged nubs.

the head, slamming me forward. Fortunately, my combat

back of my head; but the front of my face was completely

vehicle crewman helmet absorbed the impact to the

unprotected and took the full brunt of the blow.

The Soldiers were quick to call an ambulance, but it seemed like forever before it arrived. I just laid at the wash rack, bleeding profusely from my mouth — the field dressing wrapped around my head doing little to stop the flow. When the ambulance

finally arrived, I was quickly transported to the local hospital to stabilize and prepare me for the medevac flight to a hospital in Seoul, South Korea.

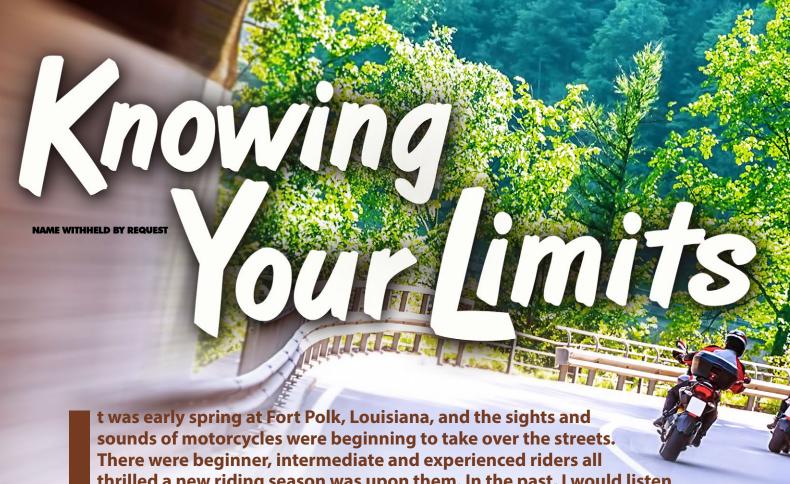
Upon entrance into the emergency room, a team of nurses cut my filthy coveralls off my body and cleaned me for surgery. The surgery lasted several hours since they had to remove all the broken teeth and stitch up my gums, inner lip and outer lip. The end result was a large loss of my upper jaw bone, six upper teeth permanently lost and several hundred stitches both inside and outside my mouth.

Afterward, I was completely confused how the accident happened. From my perspective I had done everything correctly when I put the pin in the hatch locking mechanism. When one of my NCOs came to visit me in the hospital, I learned the other mechanic who drove the M113A3 on the first road test failed to properly secure the hatch into the latch mechanism. So, not only did he forget to install the safety pin, but he also neglected to lock the hatch at all. The cover was just resting in the open position, which allowed it to swing forward when I hit the brakes. Following this event, I spoke with the other mechanic and discovered he was never properly trained how to operate the M113A3 when he received his license. He was just acting in ignorance when he didn't to secure the hatch correctly.

Since the accident I have had a bone graft to repair my upper jaw, dental implants and several scar revision surgeries to smooth out my chin. I still have very little feeling in my lip, as well as two distinct scars between my lower lip and my chin. Fortunately, doctors were able to put me back together and I have a story to tell.

In retrospect, this accident could have been avoided if I had just grabbed the hatch to make sure it was secure in the latch. But it also could have been prevented if the other mechanic did the same thing when he conducted the first road test. Moreover, this accident may have been prevented if our leadership actually took the time to license us properly. Hands-on training, vehicle-specific testing, PMCS testing and a road test would have likely ensured we truly knew everything we needed to about the safe operation of this vehicle.

If there is one thing I have learned from this incident, it is accidents like this one can be prevented by leaders who take the time to properly train Soldiers on how to safely operate Army vehicles. We have a lot on our training calendars, but quality driver training should never be sacrificed in order to make the mission happen. The last thing a leader wants to do is to explain why a Soldier was injured or killed because they failed to properly train them and neglected to enforce the standard.



thrilled a new riding season was upon them. In the past, I would listen to my fellow NCOs share stories about their riding experiences. I'd always had an interest in riding, and their stories further sparked that interest. So at the age of 32, I decided to purchase my first bike with no previous riding experience.

It didn't take long to fall in love with riding. There's just something about the warm weather, clear skies, throttle and, of course, pure style of riding a motorcycle that gets into a rider's veins. As a beginner, obviously I was quite nervous. I'd taken the mandatory rider training, but I had also witnessed motorcycles accidents. I was determined to not become a fatality statistic, so I rode with extreme caution. I always took the long routes to avoid as much traffic as possible. I figured that would also save me from any embarrassment from my buddies if I were to stall or hold up traffic because I was riding slowly.

As my confidence grew, I felt I was ready to start riding with my co-workers, some of whom were experienced riders. My first ride with the group was from Leesville to Alexandria, Louisiana, on Highway 28, a 50-mile stretch of newly paved roadway. We started as a group cruising at a nice, comfortable speed. As we got further into the ride, however, the pace increased and I found myself falling behind.

Not wanting to be left out of the fun, I increased my speed too. However, I quickly became uncomfortable trying to keep up with the group and slowed back down. Some of the guys in the group didn't

like my decision and others laughed and made jokes. It didn't bother me, though. I understood my limitations and skill level. Plus, for me, riding is more about taking in the sites. I don't have that need for speed like others in the group.

Fast forward two months and I was still riding for style, not speed. Because of that, I wasn't getting invited on some bike rides, but I wasn't bothered. One Saturday afternoon, one of my co-workers who I had ridden with before stopped by the house to invite me on a group ride to the Texas border, but I wasn't home. There were nine riders in the group that was made



t was February 2011 in Iraq and we were returning from our final mission of the day to Forward Operating Base Speicher. As we crossed the wire, we crew chiefs and gunners removed the ammo belts from our 240H machine guns and then let the weapons fall forward, muzzle down, prior to landing. After landing and shutdown procedures were completed, we began performing our checks on the aircraft for the next day's mission.

We were a two-ship mission. Another gunner and I were in Chalk 1. In Chalk 2 was a new gunner we were training and our unit's standardization instructor. The SI disembarked the aircraft from the right and made her way to the left side. Remembering the rules — muzzles down and stowed — the new gunner, while still seated in the left side of the aircraft, brought his weapon up just as the SI crew chief made her way to his side. The SI was struck in the left eye. Being only

SMALL STEP, BIG CONSEQUENCES

5 feet tall, she had been almost eye level with the weapon.

The muzzle tip tore the SI's eyeball, and the shock and pain caused her to pass out. Medics were immediately called and transported her to the troop medical center, where they performed an overall check. The doctors found nothing else wrong with the SI other than her eye injury and applied a dressing and put her on bed rest.

At first, the physician's diagnosis was a small tear on the SI's iris going down to the white part of her eye. As the days went on, however, her eye got worse. The Iraq environment, with nearly constant blowing sand, did not help matters. After a week, the doctor decided the SI needed to be medically evacuated to Germany for further evaluation. There she received stitches on her eye and was later medically

"THIS ACCIDENT WAS A REMINDER THAT WE MUST ALWAYS BE AWARE OF OUR SURROUNDINGS."

SGT. 1ST CLASS CHRISTOPHER LINGO
Detachment 1, Company B,
449th Aviation Support Battalion
Camp Robinson
North Little Rock, Arkansas

evacuated back to the United States for further treatment.

At the time of the accident, we'd only been in country about three weeks. We didn't hear too much about the SI's condition until we left Iraq in November of that year. Once we arrived home, we heard she had suffered 80 percent vision loss and underwent multiple surgeries. For whatever reason, she had also suffered partial hearing loss due to extensive nerve damage to her eye and started having equilibrium issues. She had to use a cane and service dog due to all the issues she sustained. She also could no longer drive a vehicle.



RETIRED CHIEF WARRANT OFFICER 4 DAVID MUEHLEISEN

hadn't been on a motorcycle in about 10 years, but I was getting the itch to ride again. I kept checking out the Lemon Lot on post, looking for something that would catch my eye and fit my wallet. Persistence paid off when my wife and I went by one day and I spotted a yellow and black Honda CBR 600 F4 at a fair price. I told her that was what I wanted, so I pulled out my cellphone and tried to call the owner. Unfortunately, no one answered. A few days later, I came home early to get ready for school that night. When I opened the garage door, there the bike was, sitting with the keys in the ignition. My wife had bought it for me as a surprise. I was thrilled!

I hopped on the bike and just cruised around the neighborhood a few times. I noticed the bike sat really low — so low, in fact, that my toes would drag when I took slow, tight turns. I also noticed the torque seemed really excessive on the low end of the throttle.

I found out the previous owner, a young guy I had never met, modified the bike. For example, he'd lowered the front forks about 2 inches. This almost eliminated the gap between the front fender and the headlight fairing and



shortened the fork travel to where I felt they'd bottom out under normal riding conditions. There was no question I needed to return the bike's front forks to their stock condition.

The rear shock was the really scary part. The previous owner had replaced the original dog bones with fabricated steel slats that he drilled and bolted in place. The replacement dog bones were about two inches shorter and a sixteenth of an inch thinner than stock ones. I took off these replacement dog bones and looked at them. I noticed

alterations. I decided to return the bike back to its original configuration, so back inside the garage it went.

Restoring the bike to the original configuration was, for the most part, an easy task. I returned the front forks back to their stock condition and torqued them down to factory specs. I replaced the rear shock dog bones and sprockets with original equipment manufacturer parts. Going back to the OEM sprockets made the speedometer read accurately again. It also corrected the excessive low-speed torque and the over-revving

"IF YOU DIDN'T KNOW WHAT YOU'RE DOING, YOU COULD BE IN FOR A BIG SURPRISE THE NEXT TIME YOU WENT INTO A CORNER."

they were bending at the middle hole and the metal was stretching and slightly bent. To me, it looked like they were in the process of failing. I can just imagine the catastrophic failure that would have happened if that weak metal snapped at 65 mph!

It wasn't just the suspension the former owner had altered; he'd also changed the sprockets to make the bike look cool and produce more low-end torque. That's why the throttle response didn't seem to feel right when I rode the bike.

Those changes completely altered the bike's stock handling and performance. I read some blogs and spoke to some experienced riders about the changes. They told me lowering the bike's suspension changed its handling characteristics. If you didn't know what you're doing, you could be in for a big surprise the next time you went into a corner. The stock CBR 600 already looked cool enough to me. I didn't need these dangerous

at highway speed. When I put the suspension back to stock, I realized the kickstand was 2 inches too short, so I ordered a used one and replaced that as well. While I had the bike torn down, I replaced all the brake pads for good measure. Now the bike was ready to ride just like Honda intended.

After returning the bike to its stock configuration, I could tell a big difference in every aspect of riding. Compared to the way it cornered before, it now turned less aggressively. When I took off, the transition when shifting from gear to gear was smoother and much less punishing on the chain and sprockets. Even when parking on the kickstand, the bike now sat properly.

The bottom line is I know the bike is configured exactly the way it was engineered to be. I don't have to worry about parts snapping and falling off or dragging my toes in the corners. And that makes me feel a lot more confident — and safe — as a rider.

COVER YOUR C



DID YOU KNOW?

May is National Bike Month. The League of American Bicyclists is promoting Bike to Work Week 2017 May 15-19 and Bike to Work Day Friday, May 19.

RANIUM

STEVE RAMKEBayne-Jones Army Community Hospital
Fort Polk, Louisiana

have to wear what?" That's what I said the first time I was told I had to wear a bicycle helmet while riding off duty. I complained to my commander, first sergeant and anyone else who would listen. I even questioned the commander about the new requirement written into regulations that required me to wear a helmet. After all, I had been riding a bike since I was 6 years old. Now in my 30s, I was invincible and nothing was going to happen to me while riding my bike.

Well, my complaining fell on deaf ears. Like a good sergeant, I complied with orders. I bought helmets for my family and myself and begrudgingly started wearing mine when I rode. Little did I know that just a few months later that helmet would keep me from suffering a serious head injury.

It was a nice day in Abilene, Texas. The wind was calm, the sun was shining and I didn't have to report for duty until 4 p.m. for the swing shift. I decided to do a little extra PT that day, and a good bike ride seemed to be just the ticket. I checked the air in my tires, grabbed my helmet and hit the road. I was nearing the end of my ride when it happened.

First, I heard a pop. Next thing I knew, I was on my back and my head slammed onto the asphalt. My vision quickly dimmed, but I was brought back to my senses when my bicycle crashed back down upon my chest and face. What happened? Was I OK? Did I break anything? As I lay in the road asking myself those questions, I realized I should probably move before I got run over by a car.

Wow, my head hurt! Getting up

slowly, I looked for what caused me to take a spill. As I inspected my bike, I discovered that metal fatigue in my left pedal caused it to snap off. When that happened, I rolled off my bike while traveling at a pretty decent speed. What I thought would never happen to me actually did.

Brushing myself off, I removed my helmet. That's when I realized how lucky I was to be wearing it. The back of my helmet literally slammed into the asphalt. I had three 4-inch cracks in the back of the helmet and one 3-inch crack in the side of it. I can only imagine





According to Army Regulation 385-10, when bicycling on Department of Defense installation roadways during hours of darkness or reduced visibility, bicycles will be equipped with operable head and taillights, and the bicyclist will wear a reflective upper outer garment. For more information about bicycle helmets and state laws, visit the Bicycle Helmet Safety Institute website at http://www.helmets.org/index.htm.

the damage my head would have sustained had I not been wearing a helmet. I immediately reported to the post hospital, where I was diagnosed with a possible mild concussion.

Looking back, I did some things right and wrong that day.

What I did right was I wore my helmet and checked my tires before I rode. The main thing I did wrong was I did not take the time to perform a good inspection on my bicycle. If I had taken a closer look at the overall condition of my bike, I may have

caught the fault in the pedal and prevented the pain I suffered.

So, I have to wear what? A bike helmet, that's what! And believe me; I'll never complain about it again. ■



Wearing a properly fitted helmet isn't the only precaution bicyclists should take when riding. Before hitting the road on your bike, keep in mind the following safety tips from the National Highway Traffic Safety Association.

- See and be seen. No matter the time of day, you need to be seen by others. Wearing white has not been shown to make you more visible. Rather, always wear neon, fluorescent or other bright colors when riding day or night. Also wear something that reflects light, such as reflective tape or markings, or flashing lights. Remember, just because you can see a driver doesn't mean the driver can see you.
- Go with the flow. Ride on the right in the same direction as other vehicles. Go with the traffic flow — not against it.
- Obey all traffic laws. A bicycle is a vehicle and you're the driver. When you ride in the street, obey all traffic signs, signals and lane markings.
- Yield to traffic when appropriate. Almost always, riders on a smaller road must yield for traffic on a major or larger road. If there is no stop

sign or traffic signal and you are coming from a smaller roadway (out of a driveway, from a sidewalk, a bike path, etc.), you must slow down and look to see if the way is clear before proceeding. This also means yielding to pedestrians who have already entered a crosswalk.

- Be predictable. Ride in a straight line, not in and out of cars. Signal your moves to others.
- Stay alert at all times. Use your eyes and ears. Watch out for potholes, cracks, wet leaves, storm grates, railroad tracks or anything that could make you lose control of your bike. You need your ears to hear traffic and avoid dangerous situations, so don't wear ear buds or headphones when you ride.
- Look before turning. When turning left or right, always look behind you for a break in traffic and then signal well before making the turn. Watch for left- or right-turning traffic.
- Watch for parked cars. Ride far enough out from the curb to avoid the unexpected from parked vehicles such as doors opening or cars pulling out. ■



WHO'S IN CONTROL?

CHIEF WARRANT OFFICER 3 CARL R MILLER 2nd Brigade Combat Team, 4th Infantry Division Fort Carson, Colorado

he OPTEMPO had been heavy for our single Tactical
Unmanned Aircraft System platoon site. I was the TUAS
operations technician for the 2nd Stryker Calvary Regiment
out of Vilseck, Germany. We were giving the troopers of
my regiment 24 hours of continuous coverage. The attacks on the
forward operating base and the troopers going out had slowed a
great deal. Our TUASs were utilized not only as reconnaissance,
surveillance and target acquisition assets, but also as a deterrent
for enemy forces. I thought everything was going great, and we
had our operations down pat. Little did I know!

I had just taken a combat shower and was lying in my bunk, resting from a 16-hour day. Just after midnight, there was a knock on the door to my containerized housing unit. I opened it to see my platoon leader (captain) and platoon sergeant standing there with grim looks on their faces. I knew we hadn't crashed, but by the looks on their faces, I knew something had happened. They both stood there as if they were in trouble. Tired and knowing tomorrow was to be a direct reflection of today, I asked what was wrong.

The young, newly pinned captain proceeded to

tell me the story. Only 30 minutes before their arrival, a young specialist, serving as a newly qualified mission commander, had gotten us some attention from the U.S. Air Force, and it wasn't the kind of recognition my troop or squadron commander was going to like. We had been the fine recipients of a hazardous air traffic report, or HATR. It gets better than just a report, though.

Somewhere about 11:30 p.m. the night before, the young specialist had the operators pre-position the unmanned aircraft for the next mission. He requested airspace for transitioning. He

was cleared for his transition and given a whole keypad, or enough area to do the mission. The operators requested a lower altitude for the mission. A lower altitude meant better video for the ground commanders. However, this was a trade off because engine noise could give away the aircraft's position, so the mission commander requested a new altitude. The controlling agency granted the request and told him to "elevator in place." The crew argued at what that meant, as they really did not know. The mission commander instructed the crew

to continue their transition across the keypad (since he was already cleared for it) and to descend to the new low altitude.

Not even three minutes into their descent, the mission commander's communications radio monitor went crazy. The controlling agency was lighting into him pretty good, saying he had busted airspace and had nearly caused a midair collision with a manned fixed-wing aircraft. The crew of that aircraft said they were going to do a HATR. The young specialist replied with "LOL!!! What R U talking about? LOL!"

commander duties, the whole crew was counseled and we got a safety stand down to go over some very important things we had forgotten. However, my Soldiers and I learned a few lessons that

day, and I thought it best to

share them with the whole aviation community.

1. The chat

software being used is for official communications.
Leaders should train their Soldiers to use proper messaging techniques with the software. In this case, the specialist thought they were joking around and

Neither he, nor any of the other crewmembers, knew what a HATR was. 2. Crew

calling him a "hater."

coordination is an annual training topic and very important in the process of doing our jobs. Both Army Regulations 95-1 and 95-23 state crew coordination will be used through all aspects of the flight. There are no new accidents, so we should have the lessons learned for them. Whether we are manned or

unmanned, there is no need to reinvent the wheel. If you are unsure of the terminology, then you need to ask someone. Every Soldier and piece of equipment we have is vital to winning the mission. If we are to lose either, then let it be because the enemy got lucky or were just better than us — not because we are too embarrassed or stubborn to ask.

3. Whether the agency granting the airspace is talking on a radio or typing on a computer, we all have a right to know if other aircraft are directly above, below, beside, behind or in front of us. The crew above got pictures of the aircraft because they always scan with a camera during their descent. However, air traffic control never conveyed to our crew or the manned crew that we were in the same airspace. This could have been a huge mishap with lives lost and equipment destroyed. Sadly, the armed forces have enough accidents that take the lives of our brave men and women. Let's not add to it by thinking that unmanned aircraft are just remote-controlled aircraft. I challenge all ATC units and leaders not to treat these aircraft differently. The rules, regulations and standards are the same, so should the procedures in which the airspace is granted, disapproved and traffic advisories given. ■

Lessons Learned

What the controlling agency had meant for the TUAS operators to do was to loiter and descend in place. Of course, this is not what happened. This was not a good thing, but, thankfully, no one was hurt and no equipment damaged. The specialist was removed from mission

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MAJ. JASON SPENCER Headquarters and Headquarters Company 30th Armored Brigade Combat Team North Carolina Army National Guard Clinton, North Carolina

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he Profession of Arms can be difficult. At times, it involves missions in the extreme heat while wearing body armor and carrying weapons, ammunition and other gear. The Army's answer for preventing Soldiers from becoming heat casualties is proper water intake. And for decades, the answer to transporting water to these Soldiers on the front line has been a 400-gallon water trailer — otherwise known as the water buffalo.

Rivaling the dangers of dehydration are the hazards associated with delivering water to the Soldiers safely. During an 18-week training exercise in El Salvador during the spring and summer of 2011, my Maneuver Enhancement Brigade used M149 water buffalo trailers to deliver water to several worksites. Despite being a 14-year veteran with three overseas tours, it took this training mission to teach me the extent of re-supply hazards using water trailers.

As the recently assigned brigade additional duty safety officer, some of my duties included risk analysis, risk mitigation and trend analysis. With thousands of Soldiers

injury. While maneuvering the water buffalo, a Soldier strained his back. As I recall, the back strain placed the Soldier on quarters for at least a day. We initially discounted this accident as an isolated case, as the Soldier was in his late 40s and had a history of back injuries. One could conclude that it was simply a case of Soldier overconfidence.

But then came another accident. A sergeant suffered a broken foot when the trailer's tow ring fell on top of it. Leading up to the incident, the Soldier and his team had attempted to maneuver the water buffalo over uneven ground at a worksite.

And then there was third accident. While trying to switch towing vehicles in the middle of a busy street, a Soldier's leg

fractured under the weight of the trailer. This accident was the last straw. Our colonel immediately ordered a safety standdown and froze the use of water buffaloes until

further notice.

The commander's inquiry that followed revealed that up-armored HMMWVs, despite having powerful engines, were not high enough off the ground to safely

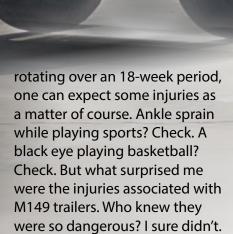
hook and unhook an M149series water trailer. The technical manual for the water buffalo says the trailer was originally designed for 2.5-ton trucks, which have a rear hitch much higher off the ground than the one on the HMMWV. The difference meant that while mounted on the hitch of a 2.5ton truck (or equivalent Family of Medium Tactical Vehicle series), Soldiers can fully adjust and lock the big, movable metal leg into place. The leg serves as the third point of contact with the ground and balances the trailer securely.

While mounted on the HMMWV, however, the adjustable arm would often not lock into place; and it required a crew to unhook it and hold it into place while another Soldier adjusted and locked the third leg. It turns out that this was a very risky operation, especially with a 3,000-pound trailer carrying another 3,300 pounds of water when filled to capacity. It was a much higher risk than necessary to accomplish the mission.

My takeaway from this experience was we must know the limitations of our equipment and review the technical manuals associated with prime movers and trailers. The M149 and all similar-height trailers have no business hitched to a HMMWV.

After the safety stand-down we found a way to mitigate the hazards of water resupply while eliminating the need to hook/ unhook the trailer. We only used Light Medium Tactical Vehicles to move the trailers. As an additional safety measure, the trailers remained on the back of the LMTV prime movers and returned with the truck at the end of the mission. We took the most dangerous action — hooking and unhooking the water trailer — out of the process. We eliminated the hazard.

As a whole, we were fortunate. Despite some demanding missions and thousands of Soldiers rotating through, we had relatively few injuries. Those injuries that did occur were fairly minor. That said, this entire experience was a humbling reminder that sometimes the last thing you expect to account for your injuries ends up being the biggest casualty producer.



Keep Your Eyes on

t was a beautiful, warm spring morning in Utah as we loaded up the dirt bikes to head to the canvon for a ride. We'd be meeting some friends and then the seven of us would ride together in a group. Once we arrived at the parking lot and unloaded our bikes, we began preparing for the ride by putting on all of our appropriate PPE, which included helmets, chest protectors, gloves, boots, goggles, riding pants and jerseys. We then discussed the route of the ride and held our safety brief, where we stressed safe following distances. It's what we didn't

discuss that got us

in trouble.

the Road

1ST SGT. JUSTIN THOMAS
Alpha Company, 489th BSB, 204th MEB
Camp Williams. Utah

The group had ridden together many times in the past and we were all familiar with each other. Today's ride was going to be a fairly simple one because we had our children with us. We planned to go three and a half miles up a dirt road followed by two miles of trail riding before returning to the parking lot. We took a winding dirt road toward the trail with two adults out front, two children in the middle and three adults in the rear. Everyone was maintaining a safe riding distance between bikes, and the dust wasn't bad enough to hinder our visibility.

As we neared the top of a hill, we saw two bulls on the side of the road. They were locking horns, trying to enforce their dominance on one another. It was really quite a sight to see, and being out in the open on a bike made it feel even more real. As you can imagine, everyone took their eyes off the road as we neared the bulls, wanting to

see what would happen next.

We had all slowed to about 10 mph when the two lead riders decided to stop abruptly to continue watching. The two children noticed the riders had stopped and both began to slow down and stop as well. At that moment, the second to last rider took her eyes off of the road, just as the other riders had done, to watch the bulls. When she turned her head forward to continue riding, she was surprised to find a 9-yearold boy on his motorcycle stopped right in front of her.

Still traveling about 10 mph, she ran into the back of the boy, throwing him and his dirt bike to the ground. Two of the riders were also volunteer emergency medical technicians and immediately ran over to see if the boy was injured. Fortunately, he only suffered a little bruising and a good scare — as did the rider that ran into him.

We thought we had mitigated all of the risks

associated with our ride that day. This incident proved that even though the group was experienced, rode frequently together, wore all the appropriate PPE and had even established a safe following distance plan, accidents still happen. There were several factors that led to the accident, but two stand out. For future rides, our group incorporated two new rules: No immediate stopping unless absolutely necessary, and keep your eyes on the road at all times.

patial disorientation combined with a degraded visual environment has been a killer of civilian and Army aviators since the advent of manned flight. We must always stay vigilant to recognize the situations that can lead to spatial disorientation, lest we become victims of gravity's unforgiving pull and the sudden, violent stop that has taken so many pilots before us.

It was month five of a nine-month tour in southern Afghanistan. My OH-58 Scout Weapons Team was tasked for the night with security and reconnaissance of Kandahar Airfield's ground defense zone. We were all very familiar with the area and the mission for this clear. zero-illumination night. Our assigned area was mostly flat, rural farmland and the expansive, featureless Registan Desert. I was a 500-hour pilot in the right (pilot's) seat; my co-pilot/observer in the left seat was a more experienced pilot with about 1,000 hours.

Three hours of our five-hour mission had gone by without

an issue. There were no around forces in the zone and zero enemy activity — a recipe for a calm, uneventful night. After a quick refuel, we headed south of the airfield for some continuation gunnery and instrument training at the Texas Helo test fire area. We practiced our attack patterns and engagement techniques and felt very confident in our ability to make

> "ALWAYS LOOK OUT FOR YOUR BUDDIES. TRUST THEIR EXPERIENCE, BUT NEVER HESITATE TO OFFER ASSISTANCE WHEN IT'S NEEDED."

LOOK OUT FOR

CHIEF WARRANT OFFICER 2 DENICO WOODE B Troop, 1st Squadron, 6th Cavalry Regiment, Task Force Gunfighter Kandahar Airfield, Afghanistan precision rocket and gun attacks.

After firing, my flight climbed out over the dunes of the Registan Desert to practice our inadvertent instrument meteorological conditions procedure. The desert's uninhabited, zerocontrast terrain makes it easy to lose your visual references. I transitioned to instrument flight, separated from my wingman and began a climb to 2,000 feet above ground level. After leveling off, I passed off the controls to my co-pilot so he could execute the practice approach.

Everything was going just fine at this point. We had almost intercepted the glideslope when my co-pilot became quiet and began to execute a left turn. (Mind you, this left turn was not part of the approach.)

I asked, "What are you doing?"

He didn't respond.
I asked again, "You OK, bro?"
Still nothing — and he
started to steepen the turn
even faster!

We had gone past 30 degrees of bank and started to dive sharply by the time I took

the controls and said, "I have the controls."

We leveled off and I asked again, "You OK, bro?"

"Dude, I'm really messed up," he replied.

He told me he had experienced an overwhelming episode of the leans, lost his orientation while under simulated instrument conditions and couldn't recover on his own. Not even a year earlier, another flight played out like this in the same location and ended with a crash and the loss of all five crewmembers. Our night could have ended similarly. We were both thankful we were looking out for each other.

We are taught to refer to our instruments, delay intuitive actions and transfer the controls to treat spatial disorientation. It's even more critical to look out for your crewmembers, say something and, most importantly, do something to avoid an unrecoverable situation that could lead to an accident. Always look out for your buddies. Trust their experience, but never hesitate to offer assistance when it's needed.



THE OTHER GUY

GOD TRAINIG

t was my girlfriend's birthday and I wanted to surprise her by riding t was my girmriend's birthday and I wanted to surprise her by ridir my motorcycle to Atlanta from Valdosta, Georgia. To get an early my motorcycle to Atlanta from Valdosta, Georgia. 10 get an early start, I cranked up my bike at 2 a.m. and headed up house the start, I cranked up my bike at 2 a.m. and headed up my bike at start, I cranked up my pike at Z a.m. and neaded up intersta North. Little did I know it was going to be a very short trip.

I was riding my first motorcycle, a Suzuki GSXR 1000, that I'd bought about a year earlier. The previous year, my girlfriend bought me motorcycle riding lessons from a Harley-Davidson dealership as a birthday gift. She knew how much I wanted to ride. The four-day Rider's Edge course helped me a lot. One of the lessons we were taught was how to properly secure items while riding. Cruiser-type motorcycles, such as HarleyDavidsons, often

have saddlebags or even trunks to carry gear. However, on my Suzuki sport bike, I was pretty much limited to whatever I could strap to the gas tank or rear fender.

As I got ready to hit the road that morning, I used a spider bungee cord to strap my travel bag to the rear fender. I checked and double-checked the bag to make sure it was secure before heading out. As I pulled onto the highway, everything seemed normal. Periodically, I reached back and checked the bag to make sure it was still there. I'd only gone about 20 miles when things suddenly changed.

I was riding in the righthand lane at 75 mph when the engine light came on and I lost all power. I didn't have a clue what was happening, but I felt like I was riding on ice as my bike skidded at least 100 feet into the fast lane and stopped. Fortunately, my motorcycle training had taught me to not panic, so I didn't lose control.

My mind was racing. Here I was at zero dark thirty on the interstate with traffic rapidly overtaking me. I got



off my motorcycle and started pushing it into the emergency lane. As I pushed, I noticed the bike was difficult to move. When I got into the emergency lane, I checked the bike see what had happened. At first, I didn't notice anything. Then it struck me — "Where did my bag go?" It didn't take long to find it. The bag I thought I'd properly secured had fallen and become jammed between the motorcycle's fender and rear wheel. That's what locked up the rear wheel and sent

me skidding across the road.

As I stood there, my heart was pounding in my chest. I realized how bad the situation could have been had I not been trained to properly handle motorcycle emergencies. Beyond the initial training I received from Harley-Davidson, I'd also taken the Motorcycle Safety Foundation's Military SportBike RiderCourse. In an emergency, good training pays off.

I learned that day it is essential to properly secure

any bags or luggage when riding a motorcycle. I should have known the spider bungee cord I was using wasn't up to the job. Since the accident, I have looked into buying a tank bag. Had I been using one that morning, I would have avoided this close call.

DIVER DOWN

NAME WITHHELD BY REQUEST

consider myself a fairly experienced diver. I've had more than 30 dives, along with an advanced scuba certification and a couple of specialty certifications. I also learned to dive in water that had limited visibility, which was usually anywhere from five to 10 feet on good days. My diving experiences had been fairly uneventful in terms of emergencies or accidents, but that was about to change.

After returning from a deployment to Iraq, I was looking forward to getting back into scuba diving. On this particular weekend, a friend from my company and I planned a dive at a local scuba park at a lake. We arrived at the park, got a map of the dive area and decided to try and find a sunken sailboat that

was located just off one of the dive platforms.

As we prepped our gear, we talked out the dive. We decided my friend would lead since he had been to the park before and I was unfamiliar with the site. We also discussed different hand signals and what to do in case of an emergency. We then performed our buddy

checks and got into the water.

From the dive platform, we followed the marker down to the sunken sailboat. Visibility was about five feet, but I didn't think much of it because I'd dived in worse conditions. After we checked out the sailboat, we headed





t was my fourth tour and the mission was changing daily. We had been in country for about two weeks and were still trying to get set up on Bagram Airfield. Word came down we were tasked to provide an air weapons team to support a coalition clearing mission to the south of Ghazni, and our command put out the crews and tail numbers of the aircraft involved. We were to depart Bagram the next morning, refuel once at Forward Operating Base Dahlke and once at FOB Eagle, and continue to Kandahar. We preflighted the night before and placed our gear in the aircraft. We then completed the runups and our aircraft were ready for the next morning's departure.



The next morning we were given our weather brief and approval to depart with marginal weather over the passes due to blowing dust. We covered our inadvertent instrument meteorological conditions plans and abort procedures in our air mission brief and headed to the aircraft.

Not long after leaving the Bagram bowl, we

started to see

the building

north.

dust storm

blowing

The radio calls between the flights quickly turned to weather and if we should continue. The air mission commander, who was also the company safety officer, made the call to abort the mission and head back to Bagram Airfield. Upon returning to Bagram, we were hit with questions from the command about why we didn't push through the storm. We

were then re-briefed for lower

dying down, so we decided to

weather and sent back out to try

again. The dust storm had started

push through it to Dahlke.

The rest of the flight to Dahlke was pretty uneventful and most of the communication between the aircraft was pointing out landmarks and how things had changed from the prior deployment. As we came into the TAC-Ring of Dahlke, we guickly realized the place had changed immensely from the prior tour when it was called Shank. We slowed back and took lead for the approach. We were in Echo model Apaches. The extra power made the approach very smooth and we had no trouble getting into Dahlke's tight confines.

> I pulled our aircraft up to the fuel house and started to go through the checklist for hot-refuel. Out of the corner of

my eye I saw the trail aircraft coming over the final wall into parking. As he pulled power to arrest his decent, everything slowed down. His right outboard weapons pylon, which was carrying a Hellfire launcher with two missiles, fell from the aircraft. All I could think about was that a fall from 25 feet should not be happening. As the missiles and rack impacted the ground, the missiles disintegrated and came off the rails. The aircraft continued forward and set down just forward of the impact point.

I immediately called to tell the pilot to move his aircraft away and let him know he lost a pylon. He had no indications in the aircraft that the launcher had separated. We quickly got our aircraft back to 100 percent and pulled pitch to get distance from the missiles, which were now blowing propellant and pieces across the flight line. Both aircraft got clear and the explosive ordnance disposal team came to retrieve and dispose of the two missiles.

What a day it had started to be. After reporting the incident, we were surprised to hear they wanted us to continue south to Kandahar. We continued south and the rest of the flight was filled with conversation about how the events happened. Upon landing at Kandahar, an investigation was started to figure out the cause of the accident and, of course, who or what was at fault.

The investigation revealed that our crew chiefs, in a rush to prep our aircraft, had removed the missile rack by mistake. When they realized the error, they reconnected it — without inspection or paperwork — and sent us on our way. It was later discovered that several aircraft had weapons removed and reinstalled without paperwork or inspection. Discipline was handed out and the fleet was inspected.

We were extremely fortunate that day. Command pressure to make mission and a lack of discipline in our crew could have resulted in a deadly accident. We counted our blessings that two missiles were all we lost that day.



Don't ride alone.

Mentor a battle buddy!