Air Education and Training Command's

TORCH

May/June 2010

A DATE WITH THE DRAGON LADY

U-2 pilot avoids crash, earns trophy

PAGE 22

Out on a Limb

A boating accident left 1st Lt. Ryan McGuire with a below-the-knee amputation of his right leg. His indomitable spirit led him to the Warrior Games

Page 8

WATER WORLD

Seven common sense tips to recreational boating

PAGE 13

STREET SMARTS

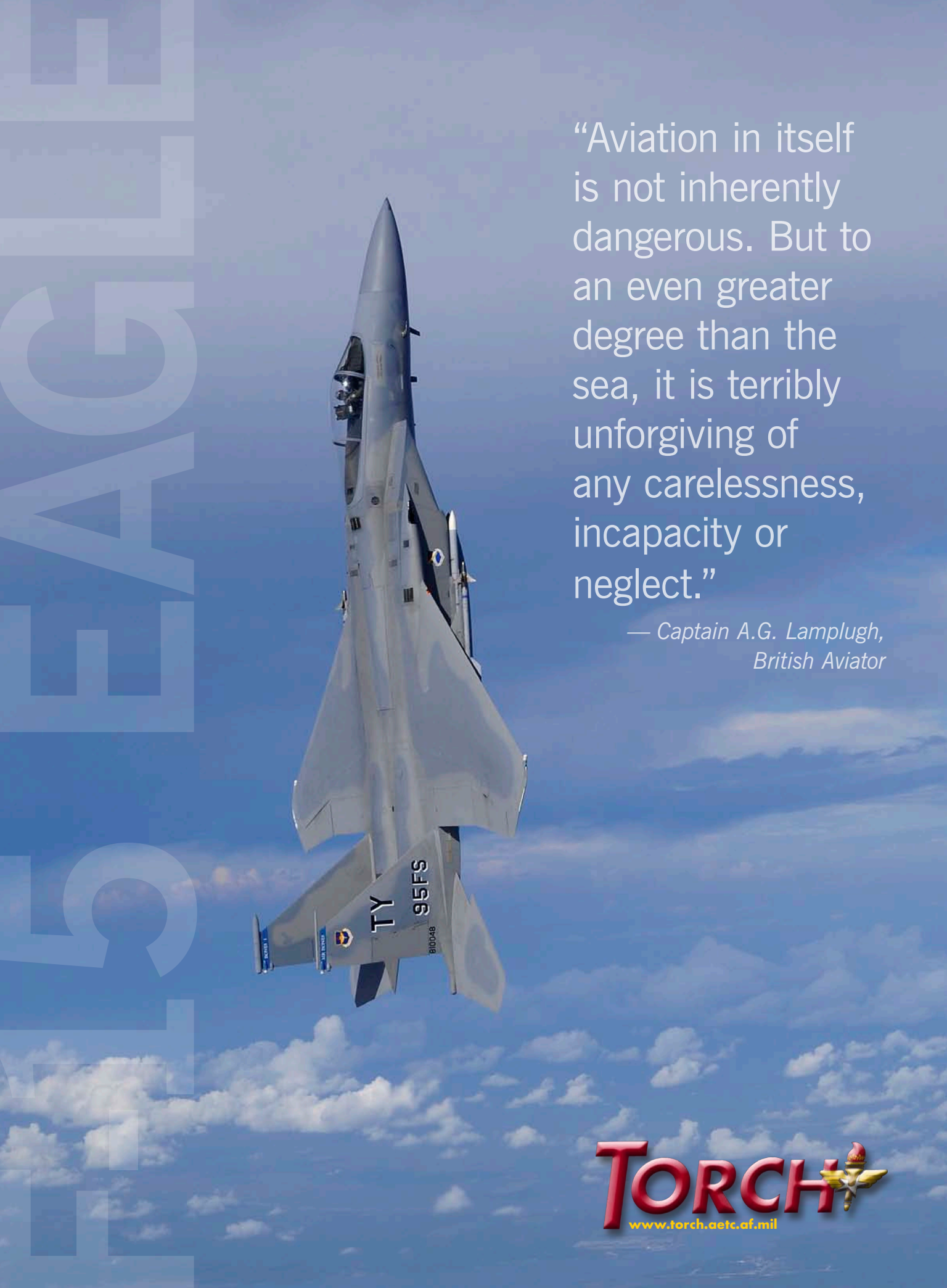
Secrets to surviving 40 years of motorcycle riding

PAGE 14

NOT BY THE BOOK

C-130J crew faces harrowing in-flight emergency

PAGE 18



"Aviation in itself is not inherently dangerous. But to an even greater degree than the sea, it is terribly unforgiving of any carelessness, incapacity or neglect."

— Captain A.G. Lamplugh, British Aviator

TORCH

www.torch.aetc.af.mil

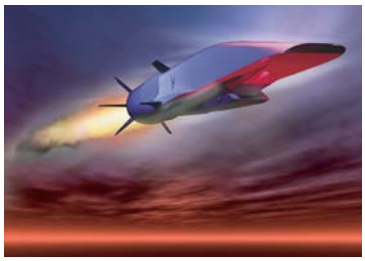
TORCH

Features

COVER STORY

by Tech. Sgt. Samuel Bendet

Departments



Cover photo by Tech. Sgt. Samuel Bendet
Back cover photo by Master. Sgt. Scott Reed

TORCH – the official safety magazine of Air Education and Training Command

May/June 2010
Volume 17, Number 3

TORCH is published bi-monthly to help promote safety awareness in Air Education and Training Command, the Air Force and Department of Defense. This funded Air Force magazine is an authorized publication for members of the U.S. military services. Contents of **TORCH** are not necessarily the official view of, or endorsed by, the U.S. Government, the Department of Defense or the Department of the Air Force. The editorial content is edited, prepared and provided by the Directorate of Safety, Air Education and Training Command, Randolph Air Force Base, Texas, following public affairs publication guidelines outlined in DOD Instruction 5120.4 and Air Force Instruction 35-101. All photographs are Air Force photographs unless otherwise indicated.

Gen. Stephen R. Lorenz
Commander

Col. John W. Blumentritt
Director of Safety

Timothy P. Barela
Editor
timothy.barela@randolph.af.mil

Sammie W. King
Senior Designer
sammie.king@randolph.af.mil

David M. Stack
Designer
david.stack@randolph.af.mil

Tech. Sgt. Samuel A. Bendet
Photojournalist
samuel.bendet@randolph.af.mil

Subscriptions and Contributions:
To request subscriptions or address changes, or to submit articles, photographs or artwork, e-mail information to torch.magazine@randolph.af.mil. Or you can write to: Editor, **TORCH**, HQ AETC/SEM, 244 F Street East, Suite 1, Randolph AFB, TX 78150-4328. You also can fax to: (210) 652-6982 or DSN: 487-6982. For customer service, call (210) 652-5818 or DSN 487-5818. Include your name, full unit address, phone number, fax number and e-mail address on all submissions. Unit distribution is based on a ratio of one copy per seven persons assigned. For personal subscriptions, write to New Orders, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954.

Visit our Web site at:
www.torch.aetc.af.mil

FROM THE
DIRECTOR

By Col. JOHN W. BLUMENTRITT
AETC director of safety

LOLLIPOPS AND RAINDROPS

As I stood at the main gate the Friday before Memorial Day weekend passing out safety fliers and candy and reminding people to drive safely, I had to smile as I mulled over the irony. I'd always maintained you can't sugarcoat safety; yet, there I was handing out lollipops.

Indeed, safety can't be sugarcoated. In the past 10 years, from 2000 to 2009, the Air Force lost 680 people to mishaps. That equates to one death every five days. The vast majority of those fatalities occurred in vehicles. On average, we lose an Airman every 11 days to a vehicle mishap.

So on a stifling hot San Antonio afternoon, I did my small part as a wingman to remind people to be safe over an historically deadly three-day weekend.

On the other side of the spectrum, there are the actions of Jessica Mendoza.

On July 26, 2001, amidst sheets of rain and pounding hail, I witnessed an automobile strike a bicyclist near Falcon Stadium at the Air Force Academy in Colorado Springs, Colo. The rider of the bicycle flew more than 10 feet into the air and crashed onto the asphalt. He was quite injured.

As I pulled over, I witnessed a woman quickly exit her vehicle and rush to the aid of the crumpled rider.

Before professional medical help arrived, this person took charge of the chaotic situation, checked the victim's condition, administered first aid, directed bystanders to find blankets, and then wrapped the injured Airman to keep him warm and prevent shock — all under horrific weather conditions. Not once did I see her flinch as lightning cracked around the accident scene, nor as she was pelted by hail and rain. It seemed clear to me that this young lady was indeed a trauma professional.

So like everyone else, I stood back and did what she said to do.

by Don Lindsey

***Col. John W. Blumentritt**, along with other base leaders, hands out safety fliers and lollipops at the Randolph AFB, Texas, main gate May 28, the Friday before Memorial Day and the start of a three-day weekend that is historically one of the deadliest.*

However, after emergency personnel arrived, secured the victim and departed with the patient, I learned that this rescuer, then Senior Airman Jessica Mendoza, was not a trauma nurse, professional medical technician or a seasoned combat triage doc. She was an administrative specialist coming off an office shift. Yet, without hesitation, rain gear or medical equipment, she dove into an ugly situation and took charge.

My Friday afternoon efforts pale in comparison to those of Airman Mendoza, but the intent is the same — epitomize the wingman concept and take responsibility for each other. And while Jessica's actions were nothing less than heroic, and waving the safety flag at the main gate was fun, you don't need to be a hero or a colonel to do your part.

Sometimes being a good wingman means telling your best friend to buckle up, or taking your roommate's keys after he's been knocking back a few.

And, sometimes, it's simply a reminder to drive safe … complete with a smile and a lollipop.

LIGHTNING NOT FRIGHTENING

I enjoyed your lightning strike stories in the March/April 2010 issue of Torch ("Lightning in a Bottle," page 8 and "Bolt from Above," page 12); they were very entertaining. But what was your safety message? That lightning strikes aren't that serious? One might come to that conclusion as all five people you featured suffered no long-term or permanent damage. Even in your sidebar article ("When Thunder Roars, Go Indoors!" page 13), it states "Nearly 300 people suffer permanent neurological disabilities each year from lightning strikes … and on average, between 55 and 60 people are killed." Perhaps it would have been beneficial to also talk to someone who'd suffered permanent damage or to family members of those who were the unluckiest of all. Those types of stories might have served as more of a deterrent. Maybe I'm just nitpicking. But I know that a lot of the lightning strike stories and statistics that I've read indicate that most victims suffer long-term ill effects, both physically and emotionally … to include depression and even a higher rate of suicide.

Dillon Pedron
Via e-mail

THE BIG THREE

I have been thumbing through your March/April 2010 edition of Torch. I enjoyed the cover story ("Lightning in a Bottle," page 8) and liked how you also packaged the story of the Airmen struck in Florida with it ("Bolt from Above," page 12). How interesting that you have two sets of lightning-strike stories to write about. I also really liked the design on the story "Snow-blind" (page 16).

Kelly Foreman
Richmond, Ky.

HAND TRANSPLANT GIVES HOPE

I was thrilled to read your update on retired Master Sgt. Janet McWilliams ("Package Bomb Victim Gets Hand Transplant," March/April 2010 issue, page 4). I remember following her story in the news and also read the in-depth feature you ran in Torch some years back ("Mail from Hell," September/October 2004 issue). With all the devastating injuries she received in that cowardly terrorist attack, it was heartwarming to see her smiling face in your magazine with her new hand. Modern medicine never ceases to amaze me, and I'm sure stories like this give hope to those troops who have lost hands in combat.

Allison Kemp
Via e-mail

by Staff Sgt. Bernie J. Davis

LETTERS TO TORCH

Have a comment or complaint? Letters to Torch may be sent via e-mail to: torch.magazine@randolph.af.mil. Or mail to Torch Editor, HQ AETC/SEM, 244 F Street East, Suite 1, Randolph AFB TX, 78150-4328, or fax to DSN 487-6982 or commercially to (210) 652-6982. For customer service, call DSN 487-5818, or commercially at (210) 652-5818. Please include your name, address and phone number.

PRIORITIZING

Wow! What a great story ("Scorpion Queen," January/February 2010 issue, page 8). I knew I had a 101 activities to do, but I couldn't start them until I finished that article. Great job to the author and editor.

Mary J. Rowan
Peterson Air Force Base, Colo.

FORMER 'CAVE DWELLER'

I came across this commentary written by Staff Sgt. Benjamin Rojek of the 30th Space Wing Public Affairs (Vandenberg Air Force Base, Calif.), and thought it fit well with the theme of the opening article from the January/February 2010 issue, "Out of the Cave." Sergeant Rojek made his own journey "out of the cave of ignorance," and I thought you might want to share it with your readers. Titled, "Rolling Down the Highway … Literally," I've attached Sergeant Rojek's account of his experience below:

J.B. Noah
Via e-mail

I don't want to see how I'm going to die.

Those were the words that crawled through my mind as my car began to turn over at 70 miles an hour. Thankfully (and apparently), I didn't die that day. Call it luck, call it fate. I call it a seat belt.

It was a warm, summer day in the Pacific Northwest, the type of day made for long drives. I called one of my friends who I knew had the day off work; and by 10 a.m., two 19-year olds were cruising up the highway.

Still a teen, I pretty much thought I was invincible. How else to explain all the stupid stuff I did? … Jumping off rooftops, skating off loading docks, never wearing a seat belt. In fact, as a kid my parents never really enforced a seat belt rule. I remember always thinking the belts were restricting and uncomfortable.

"I'm a good driver, so why should I wear a seat belt?" I always thought.

Needless to say, as we headed north on Interstate 5, my friend, George, and I relaxed and enjoyed the rare sunshine without our silly seat belts.

After a few hours at "the big mall" and lunch at a diner, we headed back to our little town. George took off his shoes, put his feet on the dash and fell asleep. I rolled down my window for the fresh air. … OK, so I also rolled it down to keep me awake. I was tired from our running around and also had worked a late shift the night before. There was no stereo in my beater car to blast the sleepiness out of me, so the wind was going to have to do.

It didn't do.

The loud "thump-thump-thump" of my tires rolling over the ruts on the side of the freeway woke me up. I-5 curved to the right, and I was headed straight for the median. Being startled awake, I panicked and quickly veered to the right. However, I had turned the wheel too sharply and was heading for the shoulder. In hindsight, I realize I should have slowly and calmly corrected my heading to my car's port.

It didn't happen that way, though.

When the car began to fly through the air, I closed my eyes not wanting to see how I would die. In the darkness I could hear the glass shattering, the metal twisting, George yelling.

Then … silence.

People were yelling for us to get out of the car. Fuel was pouring out. I tried to move, but the seat belt was holding me tight.

How the …?

As we crawled over glass through the hatchback window, I remembered. For some reason I had put on my seat belt when we started south on the freeway. George, who also never wore seat belts, had put his on, too. To this day, I don't remember why we did it. Actually, I really don't care about the why. What matters is that we did, and we're alive to talk about it.

Upon seeing the mangled automobile, the cops said we were lucky to be alive. On the way to the hospital, the medics said fate was on our side.

Call it what you will.

I call it a seat belt.

LOVING THE TORCH JET SET

Regarding the F-16C Fighting Falcon picture on the front cover of your 2010 Torch Calendar, I was excited to see the aircraft's tail number is 9154. I was the dedicated crew chief for that jet for three years. I spent many long nights maintaining that aircraft and am proud to say it maintained a 96 percent mission capable rate up until the time I left to work in quality assurance.

You guys at Torch managed to take a fantastic picture of my pride and joy, and I love having the photograph and copies of the calendar for me and my family. Thank you very much! My family and I will continue to enjoy it.

Staff Sgt. Mario Hernandez
Luke Air Force Base, Ariz.

DON'T DROWN YOUR CAREER

AN AIRMAN TELLS HER STORY

by Tech. Sgt. Samuel Bendet

ELMENDORF AIR FORCE BASE, Alaska (AFNS) — Driving under the influence, driving while intoxicated, driving drunk, wasted behind the wheel. However you decide to say it, the sting of those words hits harder than you know when you have been labeled as "one of those" Airmen.

When I left my last duty station en route to Elmendorf Air Force Base a year and a half ago, my shop commander noted on my enlisted performance report, which happened to be a firewall "5," that I was "a perfect (Officer Training School) candidate."

I decided to try a "do-it-yourself" move from Charleston AFB, S.C. As I traveled through South Dakota, I chose to stay at a friend's house for a week. Then the night before I planned to head out again, I elected to attend a party.

That was my first big mistake.

My second error in judgment occurred when I didn't give up my car keys or arrange other transportation. My third blunder wasn't far behind. As we sat down at the kitchen table to play a game, I took my first sip of alcohol.

Next thing I knew, I awoke in a cold room with loud, strange noises. I looked around and saw three other beds with three other women laying in them. Groggy and confused, I suddenly noticed that I wasn't wearing my clothes. I glanced down at my new black-and-white-striped shirt, which read, "Pennington County Jail." ... I was terrified.

In the next room, a line of women, wearing the same outfit as me, stood in front of a desk where a cop sat. The only difference in their getups is they were "accessorized" by cuffs and chains, linking them all together.

My mind raced. What happened? Why was I here? Had I been driving? If I was driving, did I hurt or kill anyone? Had someone been with me? Where was my phone? Where were my friends? How did I get into this mess?

The clock on the wall read 7:30 a.m., 12 hours after I'd arrived at the party.

With an abrupt clanking, the cell door opened, and a nurse came in to see me. I hadn't realized it, but there was a bad burn across my chest and hips. I also was battered and bruised from my forehead down to my neck.

When I finally got to talk to a police officer at 8 a.m., he informed me that I would be going to court to face a judge at 10 a.m.

I sat in a holding room for two hours reading the police report over and over again.

According to the report, I "apparently ran a stop sign. At the end of the road there was a steep hill with marks in the grass from a vehicle, indicating that the vehicle had rolled over more than once." I had been lucky because a nurse lived in a house near where my vehicle crashed. She immobilized my head to prevent any spinal damage.

My blood alcohol content read .136 — legally drunk.

It didn't matter that I still don't remember ever finishing the first drink; I was guilty.

After talking to the judge and pleading guilty, I was released and took a taxi to my friend's house. Being so close to Ellsworth, the first sergeant found me and assisted me in matters that I know I couldn't have handled on my own. By then, my previous and future commanders already had been contacted.

God must have had an angel sitting on my shoulder for saving my life during the crash. My vehicle looked like a pancake.

"Groggy and confused, the next thing I noticed is that I wasn't wearing my clothes. I glanced down at my new black-and-white striped shirt, which read, 'Pennington County Jail.'"

When I later made arrangements to finish my move and arrived at Elmendorf, I wasn't greeted by my new boss and welcomed for the first time. Instead, my commander read me my letter of reprimand with a tone of extreme disappointment in her voice. The letter was placed in my new unfavorable information file, where it stayed with me for more than a year.

I also totaled my brand new car and lost my license for a year. Trust me; walking around in Alaska during the winter was not a pleasant experience.

But I grieved most for the damage to my reputation.

It was hard knowing that even if I did the best possible job I could, I'd still be held back until the unfavorable information file cleared. The UIF made me ineligible for any type of award or recognition, including a below-the-zone promotion that I coveted.

It's been a long, hard road trying to prove myself to my Air Force family again. My drunk driving created a huge cliff in accomplishing my future career goals; however, I am determined to become a story of recovery, not of failure.

I pass on my sad account because I don't want any of you to be the next person who has to share a shameful story. Telling Mom and Dad was hard enough.

— Senior Airman Cynthia Spalding
3rd Wing Public Affairs

***When an Airman drove drunk and wrecked her vehicle**, she also wreaked havoc on her personal life, nearly drowning her career plans.*

DUI? THE 'AWARDS,' PLEASE ...

- *Arrest and incarceration*
- *Fines, lost wages*
- *Increased insurance rates*
- *Loss of driving privileges*
- *Article 15*
- *Official reprimand*
- *Loss of security clearance*
- *Damaged vehicle*
- *Damaged reputation*
- *Death?*

TALES OF THE STRANGE

FREAK ACCIDENT KILLS CAPTAIN

CAR TIRE EXPLODES IN HER LAP

An Air Force captain died April 1 after a damaged car tire she was holding exploded in her lap during a vacation to Scotland with her husband five days earlier.

Capt. Jenna Wilcox, of the 100th Civil Engineer Squadron at Royal Air Force Mildenhall, England, passed away at Western General Hospital in Edinburgh, Scotland, following the mishap in Dalkeith, Scotland, March 27. She is survived by her husband, Capt. Scott Wilcox, of the 48th Civil Engineer Squadron at RAF Lakenheath, England.

Wilcox, 27, had just returned from a year-long deployment to Afghanistan, where she survived a roadside bomb attack and was awarded the Bronze Star. Her husband had also recently returned from a tour of duty in Afghanistan.

Following their deployments, the couple decided to take a vacation to Scotland. During the trip, their BMW Z3, a small two-seater, started running a bit rough, according to mishap investigators. When they pulled over, they noticed a bulge in one of the tires and changed it. However, the damaged tire, which was bigger than the small, temporary spare, would not fit in the car's trunk, even after the couple emptied it and took out the liner. So Jenna, who sat in the passenger seat, carried the damaged tire on her lap while they headed to the nearest garage that could be of assistance some 100 miles away.

When they pulled up to the garage, however, the tire exploded in Jenna's lap, causing severe wounds to her head, neck and back, as well as other internal injuries, investigators said. The blast blew out the car's windows and roof. Miraculously, Scott, who was sitting beside his wife in the driver's seat, suffered only minor injuries from the glass.

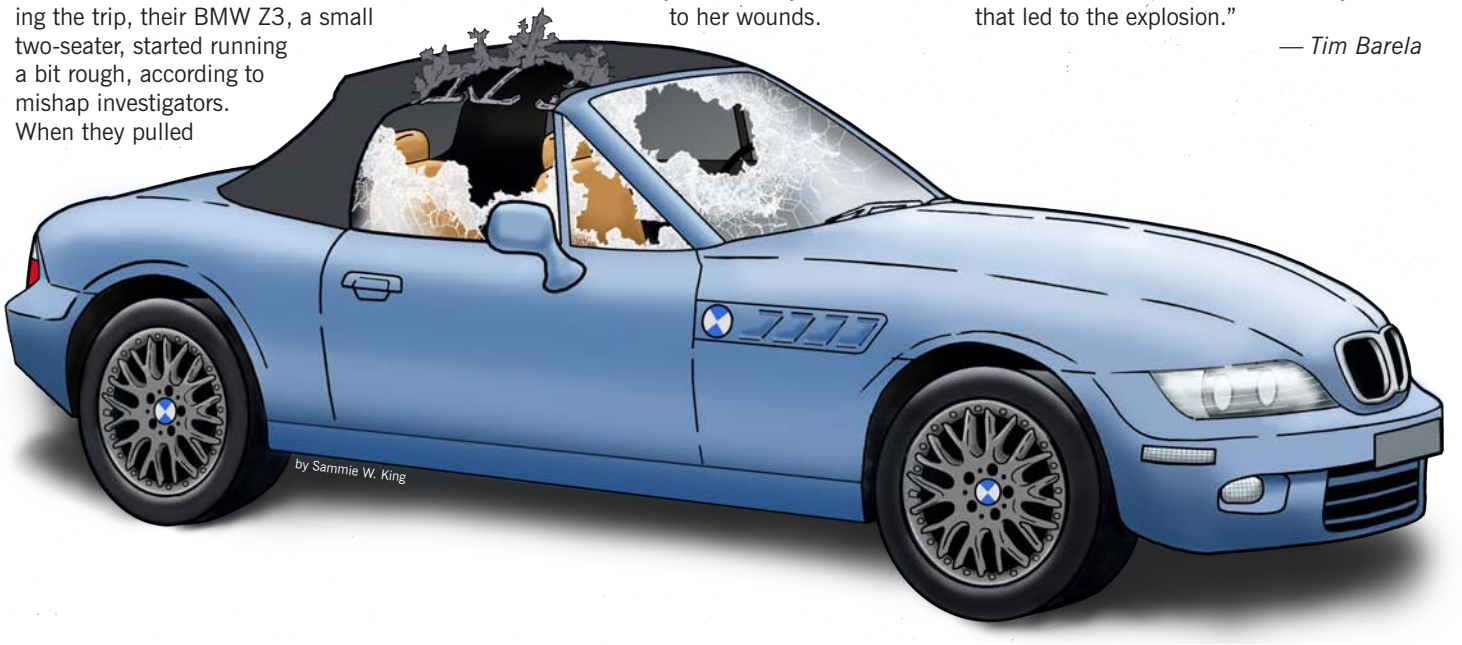
Jenna, a Buffalo, N.Y., native, held on for five days, but finally succumbed to her wounds.

"We are deeply saddened by this tragedy," said Col. Chad Manske, 100th Air Refueling Wing commander. "Jenna was a valued member of our team, and her untimely death touches all the personnel at the surrounding bases. Our thoughts and prayers go out to her family, friends and coworkers during this difficult time."

According to investigators, it appears the tire had been over inflated, which made it more susceptible to damage.

"If motorists ever find themselves in a similar situation, they should deflate the tire," said Dave Etrheim, a ground safety expert with the Air Education and Training Command Safety Directorate at Randolph Air Force Base, Texas. "Had they deflated the tire, it might have been able to fit in the trunk. But, more importantly, it would have released the tremendous pressure the tire was under and eliminated the deadly force that led to the explosion."

— Tim Barela



by Sammie W. King

Courtesy photo

JENNA'S BLOG

During her deployment to Afghanistan, which ended in March, Capt. Jenna Wilcox kept an online blog. Here are a few of the last entries she wrote before her fatal mishap:

❋ "This deployment has been very wearing, and I feel a lot older (and have more gray hairs to prove it). I just have to stay focused until the very end, when I can kiss the (United Kingdom) soil ... and my sweet Scott."

❋ "I am usually in a support role; my job ensures that planes get off the ground so they can fight the enemy. But this time, I was the one directly fighting the enemy. To the pleasure of my parents, that probably won't happen again."

❋ "This will be my last entry. Both Scott and I are home, safe and sound."

EAT UP! FOOD SAFETY A PRIORITY FOR DEPLOYED MEMBERS

by Master Sgt. Linda C. Miller

***Inspecting the "grab-and-go" line**, Staff Sgt. William Crenshaw checks the temperature of the chicken being served at the dining facility at Joint Base Balad in Iraq.*

JOINT BASE BALAD, Iraq (AFNS) — Every day thousands of Airmen, Sailors, Soldiers and contractors walk through the doors of Dining Facility Two here for breakfast, lunch and dinner. Thankfully, they can eat up without worrying about if the food they are consuming is safe.

The 332nd Expeditionary Aerospace Medical Squadron's Public Health Flight staff inspects the food deployed servicemembers and contractors consume daily.

"We check how the food is stored, what temperature it is cooked at and what the environment it is stored in looks like, among other things," said Staff Sgt. Jennifer Ledward, a 332nd EAMS public health technician. "Our number one priority is to ensure people aren't susceptible to food poisoning or other food-borne illnesses. Anything that affects the whole population involves us."

The Public Health Flight deemed Dining Facility Two well above satisfactory during a detailed check in March. Each monthly inspection is unannounced to prevent the facility staff from preparing.

"We gave the dining facility a rating of 'excellent,'" Ledward said. "In order to receive this high of a mark, the facility has two satisfactory ratings in a row. This ensures they are being consistently conscious of potential health issues."

It's important to remember that public health Airmen aren't just trying to keep a few people from a trip to the clinic, Ledward said. In a deployed location, the health of every Airman is vital, so the dining facilities must be held accountable, she added.

"It gives me peace of mind that when I come in here I won't get sick," said Tech. Sgt. Brian Jackson, a 332nd Expeditionary Security Forces Squadron member. "My unit already has a high mission tempo right now. For me to be out of the picture because I am sick would cause them to have to grab someone else.

"It would affect the whole mission from the top down," he added.

— Senior Airman Wes Carter
332nd Air Expeditionary Wing
Public Affairs

FOOD POISONING SYMPTOMS

- ✔ Nausea
- ✔ Vomiting
- ✔ Watery diarrhea
- ✔ Abdominal pain
- ✔ Stomach cramps
- ✔ Loss of appetite
- ✔ Fatigue
- ✔ Fever

— Mayo Clinic

Out on a Limb

By **Tim Barela**
Photos by Tech. Sgt. **Samuel Bendet**

A boating accident left 1st Lt. Ryan McGuire with a below-the-knee amputation of his right leg. His indomitable spirit led him to the Warrior Games

When 1st Lt. Ryan McGuire crossed the finish line in fourth place in the 1,500-meter run, he was out of breath and in pain. But he'd felt worse … much worse. So between gulps of thin air on the track at the base of the Colorado Rockies, he managed a weary grin.

And, hands on hips, he stood there proudly on his own two feet — one provided by his parents, the other by a medical team at the Center for the Intrepid in San Antonio.

Using a bungee cord *to force him to shift his weight to his prosthesis, 1st Lt. Ryan McGuire goes through demanding physical therapy at the Center for the Intrepid in San Antonio. Inset, McGuire competes in the 1,500-meter run at the inaugural Warrior Games in Colorado May 14.*

McGuire, who had his right leg amputated below the knee Oct. 10, participated at the Warrior Games May 10-14 in Colorado Springs, Colo.

Through the joint efforts of the Department of Defense and the U.S. Olympic Committee, these inaugural military Paralympic games featured wounded warriors from all branches of service. Events took place at the Olympic Training Center, where the athletes stayed, as well as at the nearby Air Force Academy.

For the 24-year-old McGuire, his journey to the games seemed nearly as fast as his sprint to the finish line in the 1,500. In September, he was in a boating mishap. In October, he had to have his lower right leg cut off. By November he'd graduated from a wheelchair to crutches. In early December, he received his first prosthetic.

"When I initially heard about the Warrior Games in January, I was still learning how to walk with my new prosthetic," McGuire said. "So I really just kind of put it out of my mind. To be ready to run and compete by early May? … Simply not possible."

But since his mishap, the Woodlands, Texas, native had been redefining his realm of possibilities. So when doctors, friends, family and the Air Force team coach encouraged him to sign up, he did so, albeit reluctantly.

"I was skeptical, to say the least," he said.

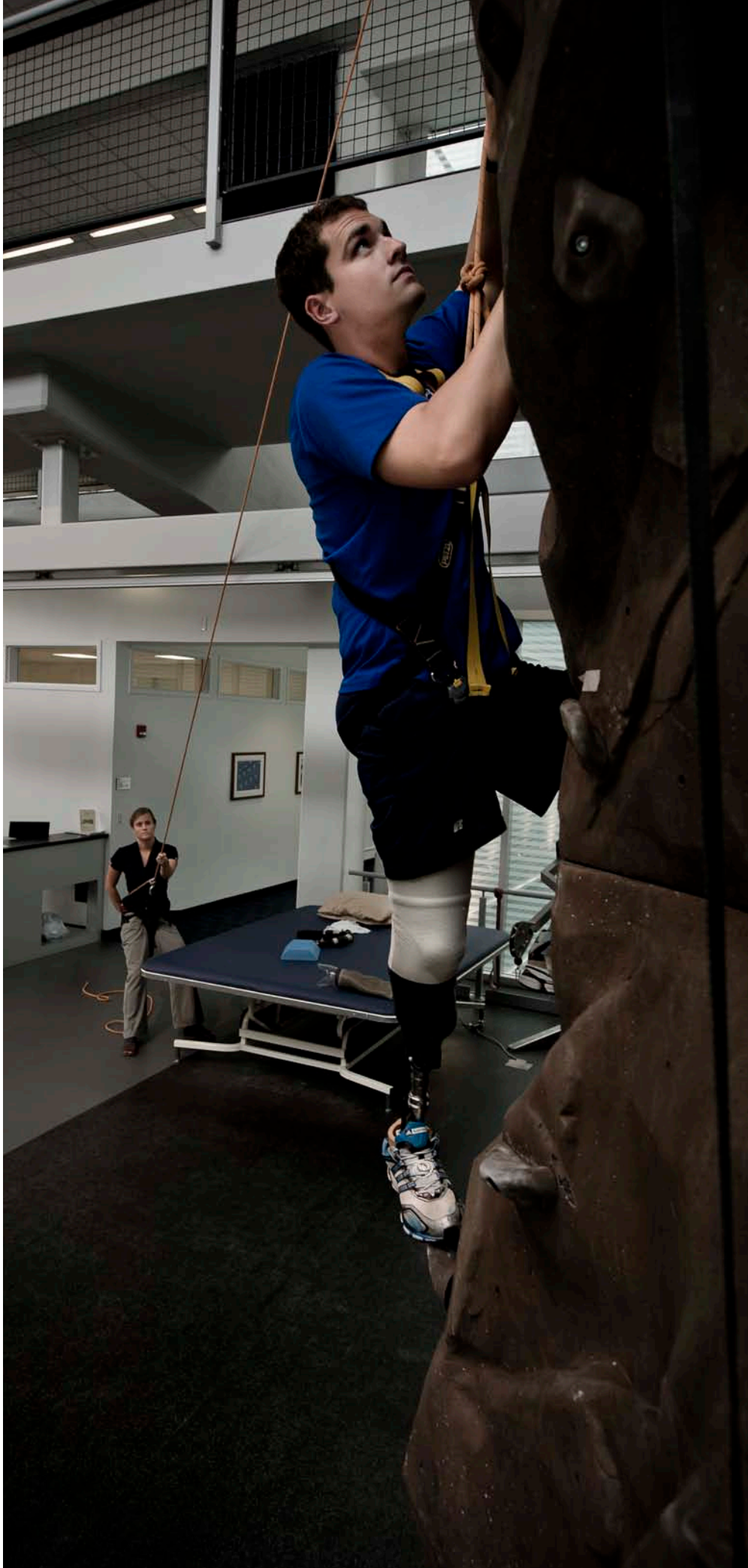
Nevertheless, McGuire, who would have been a pilot in February had he not been injured, threw himself at this new, exciting goal.

"The Warrior Games wasn't just a competition to me; it served as therapy," he said.

The games represented a landmark moment in his recovery. In Rocky Mountain country, he had "climbed the mountaintop," so to speak.

Amazing, considering he had hit rock bottom only seven months ago.

On a rare break from the demanding undergraduate pilot training program at Laughlin Air Force Base, Texas, he and four classmates headed to nearby Lake Amistad over the Labor Day weekend last summer. On Sept. 6, they'd just finished a fun day of boating and tubing, and were ready to head back into the marina to turn in their rental equipment.



Conquering the rock climbing wall at the Center for the Intrepid *is just one of the exercises physical therapist Alicia White (holding the safety rope) has McGuire perform. The rehabilitation therapy helps the lieutenant get used to the prosthetic he received after having his lower right leg amputated following a boating mishap last summer.*

They reeled in the four-man tube, which they'd been pulling behind the boat with a 50-foot tow rope, but didn't secure it. Instead, McGuire looped the rope once around a handle at the side of the boat and held onto it, letting the slack fall to the floor.

As they headed for the marina and the boat accelerated to nearly 40 mph, the 5-foot, 20-pound tube caught air.

Then all hell broke loose.

"The tube flew out of the boat and hit the water," McGuire said. "Once it hit the lake, the water created drag and pulled the rope taught."

Like a nightmarish home video in super slow-mo, he said he can remember every millisecond of what happened next.

"As the rope came up off the floor, it wrapped around my right leg and yanked me off of my feet," he said. "The force slammed me into the side of the boat, fracturing my pelvis and dislocating my hip."

Then, like a giant hand, it snatched him out of the vessel, sending him soaring through the air.

He landed in the water, only inches from the slicing blades of the prop.

"I remember looking straight at the prop and thinking, 'I'm going to die,' " he said.

Instead, the drag of the tube jerked him away from the roaring motor. The rope unraveled around his leg, leaving the "mother of all Indian burns," which immediately cauterized. The rope had

"I remember looking straight at the prop and thinking, ' I'm going to die.' "

crushed bones in his ankle and foot and severely damaged arteries and veins.

While the "lasso" had released him, sheer agony gripped him now.

"I had been pulled underwater, and I came up screaming," he said.

Though his ankle had been shattered, it was his pelvis and hip that proved to be the source of his suffering. He had enough adrenaline coursing through his veins to get back into the boat with the assistance of his buddies, but then he refused to move again … at all.

"My friends wanted to get help," he said. "But I wouldn't let them drive the boat because the movement over the choppy water was just too painful."

Miles from the marina and too far out to get cell phone service, they eventually managed to wave down some jet skiers, who went for help. When a rescue crew arrived nearly two hours after the mishap, they managed to get McGuire onto a stretcher. Against the lieutenant's protests, they slowly made their way back to shore, where an ambulance waited to rush him to the emergency room.

Nearly four and a half hours after being injured, he arrived at the hospital in Del Rio, Texas, still in excruciating pain. There, a doctor pulled his hip into place.

"I had a few choice words for her," he said, turning a bit red at the thought. "But I actually felt a little better after that."

When doctors looked at his leg and found out how much time had elapsed, they were concerned.

"They didn't have an artery specialist there, so they took one look at me and called in a helicopter," McGuire said.

The helicopter was delayed by weather, but the young officer finally arrived at the trauma center at Brooke Army Medical Center in San Antonio almost 10 hours after the mishap.

Just before heading to the operating table, he saw his younger sister who had driven in from Texas State University in San Marcos, some 40 minutes away.

"It was good to see a familiar face," McGuire said. "Then, they rolled me into the trauma room, and I passed out."

When he awoke in the intensive care unit, he had a bulky boot stabilizing his foot. He also wore a belt that cinched his pelvis together until surgeons were able to operate on it.

Doctors seemed confident he'd make a full recovery.

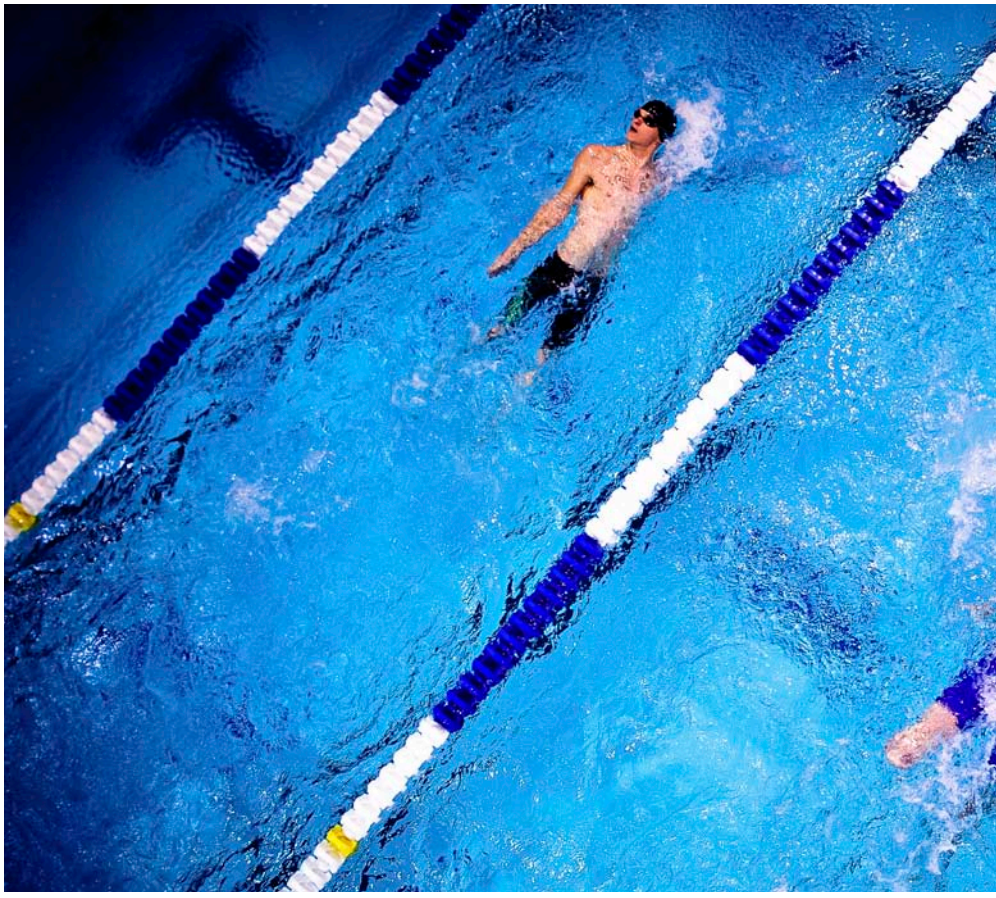
But two weeks after he'd arrived at the medical center, his toes began to die. First the toe next to his big one, then his big toe, then his middle toe.

"They tried everything to save them, even leeches," McGuire said. "But nothing worked. I was horrified."

Then doctors broke the bad news: They recommended he get a below-the-knee amputation.

"I was like, 'Amputate my leg because of a couple of toes? Absolutely, not!' " he said. "I insisted that they only cut off half of my foot."

When they did that four weeks into his hospital stay and the tissue continued to die, the writing was on the wall. The below-the-knee amputation became a cold reality.



Held at the Olympic Training Center *and the Air Force Academy in Colorado Springs, Colo., the Warrior Games proved to be a great tonic for McGuire. Not only did he fare well in the competitions, but the games helped his rehabilitation process as well. At left, McGuire dives into the pool to*

Six weeks after the boating mishap, surgeons sawed off his lower leg.

"It was all so surreal," McGuire said. "It probably really didn't hit home until I woke up after the surgery. I opened my eyes, and my mom started crying. I pretty much knew then that it wasn't just a bad dream."

For a few days after the amputation, he got a case of the "shoulda, couldas."

"I analyzed every detail of what happened and started beating myself up for not doing this or not doing that," he said. "In the end, was it preventable? Yes. We should have found a way to tie down the tube, and I shouldn't have been holding it. But it's still just a freak accident. Nobody tells you before you go out on the boat, 'Remember, don't hold the tube.' Then you get caught up in the moment, let your guard down and … in two short seconds you learn that you're not invincible."

"I never felt such pain, both physically and emotionally."

McGuire said the day following the amputation was the worst of his life.

"I never felt such pain, both physically

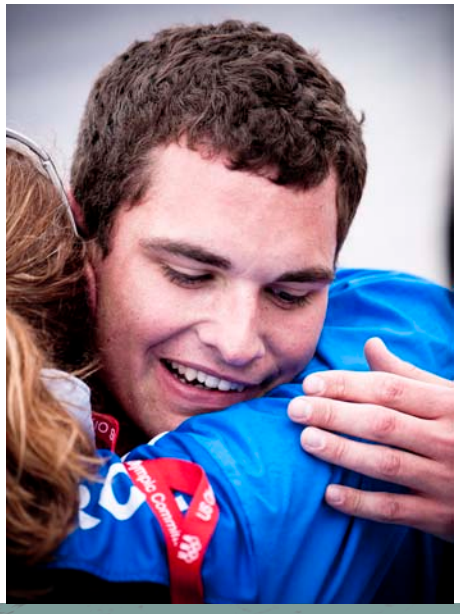
WATER WORLD

SEVEN COMMON SENSE TIPS TO RECREATIONAL BOATING

⚓ In 2008, the Coast Guard counted 4,789 accidents that involved 709 deaths, 3,331 injuries and approximately $54 million worth of damage to property resulting from recreational boating accidents. So before going out and during your stay on the water, take a deep breath at times and stop to think: "Am I being safe?"

⚓ Obtain a free vessel safety check, which can be conducted by the U.S. Coast Guard Auxiliary, before heading out on the water. Vessel safety checks are courtesy examinations, verifying the presence and condition of certain safety equipment required by state and federal regulations. They even ensure the boat plug is in, so it doesn't sink.

compete in the 100-meter freestyle, where he earned the bronze medal. Above center, he had his best showing of the games, taking home gold in the 50-meter backstroke. Top right, the lieutenant sprints the last leg of the 1,500 to take fourth. Bottom right, McGuire hugs Air Force team coach Cami Stock.



and emotionally," he said. "I had a pretty bleak attitude about the future."

His recovery then moved to the Center for the Intrepid, and he has been there ever since, rehabilitating full time.

Participating in five events at the Warrior Games, including the run, three swimming events and sitting team volleyball, has helped him regain his swagger. He even took the gold in the 50-meter backstroke.

The same determination McGuire used to lead him to the Warrior Games has rekindled a dream he had as a kid: He badly wants to be an Air Force pilot.

"I worked hard in high school, I worked hard at the Air Force Academy, and I worked even harder going through pilot training," he said. "I won't give up."

So McGuire relentlessly trains to meet a medical board that will determine his fate. He lauds the tremendous support he has received in his recovery and the pursuit of his dream. But he still knows it could be a long shot. For while there have been seasoned pilots who have had legs amputated and come back to fly, no student pilots have ever been cleared to do so.

"That's OK; I'm going to be the first," he says defiantly. "No risk, no reward."

And he's already proven he has no problem going out on a limb.

⚓ Make certain to check the local weather prior to departing the dock. Weather can change rapidly.

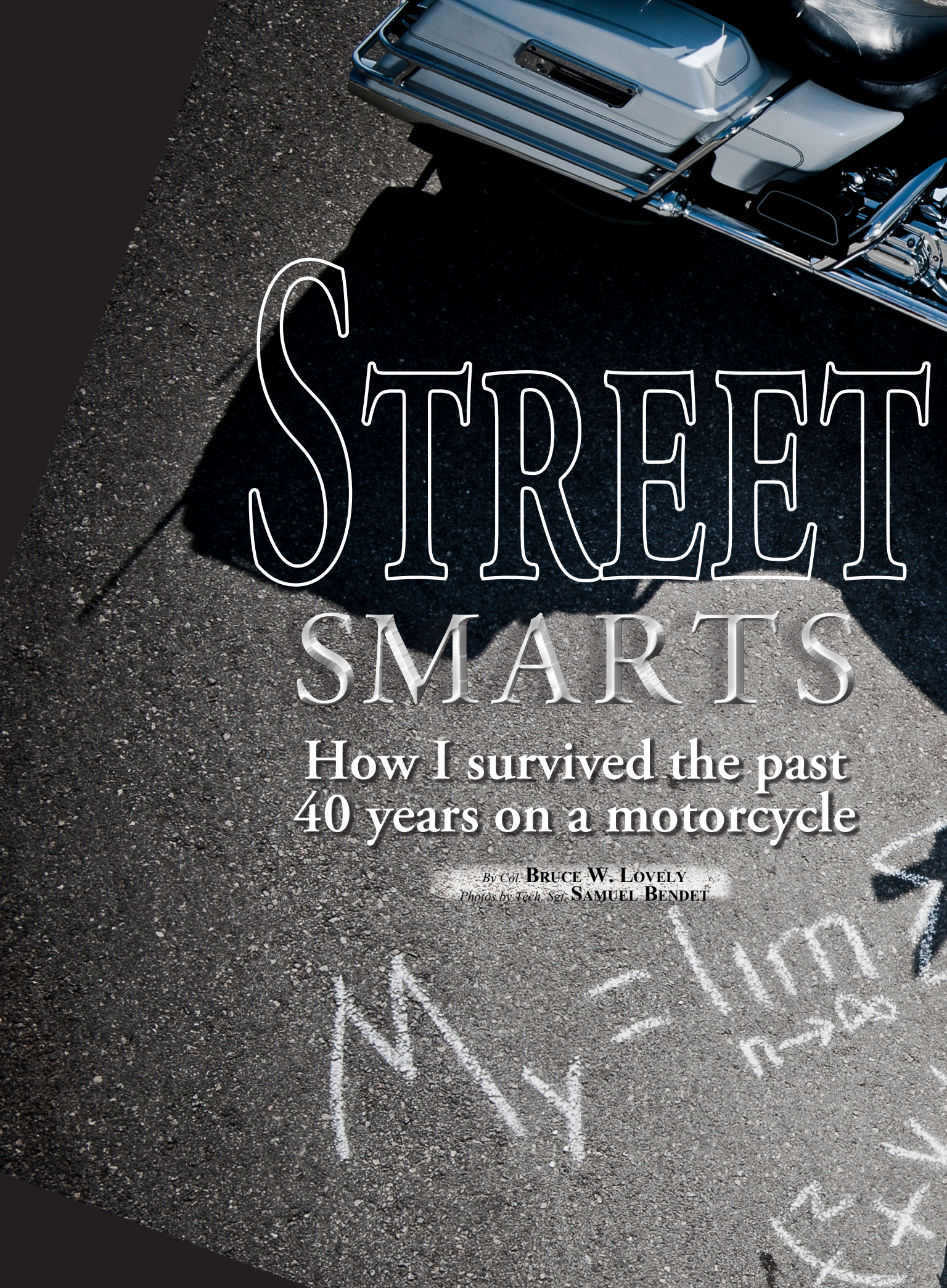
⚓ VHF-radio is the best method of communication while on the water. The Coast Guard monitors VHF channel 16. Find out what channel the nearest emergency services monitor. Although cell phones are a good backup, they can be unreliable because of gaps in coverage area and dead batteries.

⚓ Careless or reckless operation is the largest cause of all boating accidents. So maintain a safe speed, proper distance from other boaters and follow navigational rules.

⚓ Alcohol use is the leading contributing factor in fatal boating mishaps, involved in nearly 20 percent of all boating-related deaths nationwide each year. So don't drink and boat. The heat and the movement of the vessel traveling over the choppy water make the effects of alcohol even worse.

⚓ Over two-thirds of all fatal boating accident victims drowned; and of those, 90 percent were not wearing a life jacket. In 2008, 63 percent of all child boating fatalities resulted from drowning. Wear life jackets at all times, and ensure they fit properly.

— Lt. Anastacia Thorsson
U.S. Coast Guard



STREET SMARTS

How I survived the past 40 years on a motorcycle

By Col. **BRUCE W. LOVELY**
Photos by Tech. Sgt. **SAMUEL BENDET**

HARLEY-DAVIDSON

A few years back, I was riding a Triumph Trident motorcycle down a back country road, at night, in the rain, going about 50 to 55 mph. Halfway through a turn, I saw a white, bulky mass in the middle of my lane about 80 feet away. It took a moment for my mind to register what it was … a large mattress!

Initially, I froze.

With little time to react, I quickly regained composure and did what I learned at a riding course: I straightened up the bike, lined it head-on with the mattress, downshifted, stood on the pegs, gripped the handlebars tightly, leaned back and accelerated just as I hit the obstacle. … The bike went over the mattress with little more than a slight wiggle. I came off the mattress, adjusted slightly and continued on around the turn.

Lesson learned? Don't panic, and trust the motorcycle's capabilities to help keep and get you out of trouble.

I'm a hard core motorcycle rider. I've got about 500,000 accident-free street miles on motorcycles ranging from a dual purpose 125cc Kawasaki to a 1300cc (180 hp) Suzuki road racer. I've also owned assorted BSAs, Nortons, Triumphs and a couple of new-style cruisers. My current ride is a Harley Electra Glide Ultra Classic — amazing how comfort becomes more important as you age!

With 40 years experience on the street and five years before that in the dirt, I've learned a thing or two about surviving on the back of these powerful machines. Here are my top five tips.

1. Practice, practice, practice

First, get all the motorcycle training you can, and then practice, practice, practice. In my younger days I simply thought I was indestructible and that my riding skills were "perfect." Trust me; that's a bunch of crap.

As I got older and wiser, I took the Motorcycle Safety Foundation Experienced Rider Course, and much to my amazement, I actually learned a few things. I've now taken about 12 riding courses; and in every one, I've learned something and became a better rider. I plan to continue this education until I can no longer ride.

Also, at least once a month, I go to a large, empty parking lot and practice my skills, such as, emergency braking, obstacle avoidance, etc. When bad things happen, you must instantly respond; training and practice allow that to happen instinctively without thinking.

2. Stay within your limits

Never, ever override your skills and experience level. This is absolutely critical to surviving on the street. But it's also one of the easiest disciplines to fail at and get into trouble.

When riding in a group, do not try to keep up with better bikers — stay at your own pace and practice your skills. When riding alone, avoid the tendency to speed down straight-aways; because, inevitably, at the end there will be a turn … and depending on your speed, you may or may not make it around.

Many years ago, I entered a turn going way too fast. I started to drag hard parts underneath the bike and was on the verge of losing control. The good news is that I was able to leave the road and cut across an open field. The bad news is that it was springtime in Maine. So when I stopped, I sank in mud up to the frame and spent the next three hours pushing a 500-pound motorcycle back to the road. Luckily, the only thing hurt was my pride and ego!

3. Be fearless

If you're going to ride motorcycles, you need to be somewhat fearless. Please note that I didn't say "stupid," which is something altogether different. Being fearless does not mean taking unnecessary or foolish risks. You need to respect motorcycles; but fearing them is an accident waiting to happen,

because fear leads to panic. At some point, all motorcycle riders experience trepidation. The key is how we respond to it and control it.

It's usually not the motorcycle's inability to go around a turn, but rather our inability to control our fear, thereby, not allowing our training and practice to kick in and take us safely through the turn. When fear takes over, a typical motorcycle rider will freeze up and, at that point, lose control of the bike with potentially fatal results.

Today's motorcycles are technological marvels and have amazing performance in both power and handling — usually well beyond the rider's ability to test its limits. When confronting a challenging moment on a motorcycle, it's critical to corral your anxiety into action, fall back on your training and practice, and allow the motorcycle to perform.

In most cases, this will get you out of trouble, just as it did me when I unexpectedly faced that mattress in the middle of the road.

4. Maintain good situational awareness

When riding, you should always maintain a "bubble" of safety around you. Slow down, speed up, change lanes — do whatever it takes to keep a safe distance between you and vehicles in front, behind and to each side. Good situational awareness at all times can save your life.

Cars and, particularly, trucks have blind spots. Your job is to ensure that you're not in them. Also, when changing lanes, don't trust your mirrors, as you have blind spots as well. Always look over your shoulder to ensure the lane is clear before making your move.

Additionally, assess intersections, and assume that the car will not yield the right-of-way. You never want to play chicken with a cage driver, because you will lose!

Never ride alongside an 18-wheeler, because if a tire blows, you're toast. So, pass them quickly or slow down and let them go by.

At a stop sign or a red light, always keep your bike in gear and continually "check 6." Several times I've had to run a red light because it was clear that the speeding car coming up behind me was not going to stop.

"I straightened up the bike, lined it head-on with the mattress, downshifted, stood on the pegs, gripped the handlebars tightly, leaned back and accelerated just as I hit the obstacle. …"

5. Gear up

And last but not least, wear all your personal protective equipment. Never pick and choose between your safety gear — you need it all. Wear a helmet with a visor or protective eyewear, long-sleeved outer garment, long pants, over the ankle boots, gloves and a reflective vest. I prefer leather because of its abrasion resistance.

Years ago I learned the necessity of wearing all my protective equipment to help mitigate risk and ride safe. As a young lieutenant assigned to Bitburg Air Base, Germany, in the early 1980s, I bought a European model Suzuki GSX1100 and started road racing at the Nurburgring and Hockenheim circuits. In a sweeping turn at the Nurburgring at a little more than 100 mph, my bike high sided and flipped me off. I flew nearly 10 feet in the air, landed, rolled a couple of times and then slid across the pavement. Once stopped, I jumped up, ran over to my bike (which was still running), picked it up, quickly checked it over, got it into first gear and got back into the race.

My complete set of safety gear saved the day. I had just a few scuff marks on my leathers and helmet, along with a few sore muscles … that's it!

The bottom line is riding motorcycles is already exciting enough without adding unnecessary hazards to the mix. So when you're taking advantage of the great weather during the summer months, ensure your head's in the game and you've taken steps to mitigate the risks. All of you are important to your family, your unit, your Air Force and your nation.

So ride safe, and keep the rubber side down!

Colonel Lovely is the Air Education and Training Command director of manpower, personnel and services at Randolph Air Force Base, Texas.

NOT by the BOOK

Faced with a unique landing gear malfunction, a C-130J crew had to get innovative to return home safely

By Lt. **Joshua Fulcher**
Photos by Tech. Sgt. **Matthew Hannen**

"… Arrow 96, wind 240 at 11, cleared to land."
"Roger, cleared to land, Arrow 96. … Alright guys, this is it. If the gear collapses, I'll do what I can to keep it on the runway. 'Co,' if the plane starts to settle, feather the props as soon as you feel it lean. If that happens, once the aircraft stops, everybody get out as quickly as you can — a fire will most likely be on the right side of the plane, so crew entrance door is the primary exit. Alright (deep breath), let's do it …"

As many have discovered in the history of aviation, there are sometimes situations where "the book" simply doesn't help. A case in point happened one semi-sunny Arkansas summer afternoon at the Little Rock Air Force Base, Ark., C-130 Center of Excellence "schoolhouse."

The mission for the day was rather routine: Get the mighty C-130J "Super Hercules" airborne, fly a couple of low-level tactical routes, and end the day with some touch-and-go/assault landing practice.

The students on board the aircraft that day were at both ends of the experience spectrum. The copilot student, Capt. David Snow, was a high-time Canadian C-130E/H-model pilot who was in town to get qualified in the new J-model Hercules. Loadmaster student Airman 1st Class James Year, by contrast, was a young Airman with little aviation experience. In fact, it was only his second flight ever in a military aircraft (welcome to aviation young man; hope you brought your thinking cap!).

Maj. James McAlevey served as the instructor pilot and aircraft commander, while Master Sgt. Patrick Carter led operations in the back of the aircraft as the instructor loadmaster. The crew had completed two tactical low-level routes without incident. Both instructors were impressed with the performance of their students and were returning to base to complete the pattern/assault work and call it a day. The mission was going smoothly, and both students were looking at great write-ups. … But the flight was far from over.

Cleared inbound on the visual overhead approach, McAlevey called for "gear down." Snow moved the gear handle to the down position, and that's when the "smooth" mission got rough.

The C-130J's gear system showed a safe "down-and-locked" indication by the illumination of three green lights. If the gear is in transit or doesn't register as down and locked, the corresponding light will simply not light up. Only two green lights were on that day — the nose and left main gears.

The J-model has cool technology called the Advisory, Caution, and Warning System that provides visual and audible indications when malfunctions are detected. Hearing the "caution" sounds through their headsets, the pilots looked down to see "RIGHT GEAR NOT DOWN" on their flight management system displays.

"The right gear light is not on, eh," the Canadian copilot said.

"Roger, let's get a place to hold and run the checklist," McAlevey responded.

The crew contacted air traffic control, and five minutes later found themselves holding at a nearby navigational aid running the "Landing Gear System Failure" checklists. Among a host of other things, these checklists require the loadmaster to visually inspect the landing gear assembly from inside the aircraft.

That was easier said than done. The aircraft had a significant load in the cargo compartment that was to be used for ground training once the flying portion of the event was complete. To reach the landing gear access panels in the cargo compartment, Carter and Year had to move the pallets while the plane was in flight — no easy task on an air-

***Using his iPhone while airborne**, Master Sgt. Patrick Carter, an instructor loadmaster, was able to send a photo of the damaged landing gear to ground maintenance crews.*

borne aircraft in a holding pattern. Despite the difficulty of the challenge at hand, the loadmasters moved the loads, removed the panels and performed the visual inspection in accordance with the checklist.

Once eyeballs were on the affected landing gear, the loadmasters knew they had a significant problem on their hands. Not only had the gear not moved from the up position, Carter noted multiple broken components on the gear itself.

The next 20 minutes were spent following the checklist guidance and trying to get the gear down via alternate methods in the book, but none of them worked.

In the process of trying to lower the gear, the crew contacted multiple ground agencies, including Lockheed Martin technical support, which offered suggestions on how to best deal with this emergency. Using an iPhone camera, the crew sent pictures of the structural damage to the maintenance professionals on the ground, which were analyzed and used to help guide them.

Finally, the loadmasters managed to partially lower the gear. Each of the C-130J's two main landing gear is comprised of a forward and aft gear assembly; the right forward gear was full down, but the aft gear was still about 4 to 5 inches up.

All said and done, the aircraft held for two hours, losing fuel weight, prior to the crew making the rather tense final approach and landing. The loadmasters' innovative method to secure the gear (see "Turning Lemons into Lemonade," page 21), not covered in the J-model flight manual, worked swimmingly, and the gear did not collapse. It was later found that the right-side main landing gear had moved up a few inches after the plane landed, but the fix held and the plane sustained no further damage.

The crew shut down the aircraft on the runway and walked safely away from only a minor mishap.

It could have been far worse.

For instance, one of the worst situations a C-130 crew can find themselves in is when the landing gear on one side collapses. The outboard propeller of a Hercules is only about 6.5 feet off the ground and sits nearly 30 feet from the aircraft's centerline. Thus, it will impact the ground if one of the main landing gear collapses and the other stays down and locked. The wing extends another 20 feet or so beyond the outboard propeller and will also hit the ground in this situation. Having the prop and wing tip hit the ground at a C-130's landing speed (about 100 knots or 115 mph) means only one thing … disaster.

Instead, the crew used training, teamwork and innovation to come home safely.

Lieutenant Fulcher, a U.S. Coast Guard liaison officer and instructor pilot, serves as the 314th Airlift Wing flight safety officer, Little Rock Air Force Base, Ark.

When the C-130J pilots saw "RIGHT GEAR NOT DOWN" *on their flight management system displays, they knew a routine, smooth flight was about to get a lot rougher.*

Turning Lemons into Lemonade

How did the Little Rock Air Force Base, Ark., C-130J crew turn a potentially catastrophic emergency, not covered in technical orders, into a relatively routine landing? The answer: training, teamwork and innovation.

Training

The fact that this emergency took place at the C-130 Center of Excellence "schoolhouse" is significant. The crew, as with nearly all who fly with the 314th Airlift Wing at Little Rock, was only "half" qualified. "Half" meaning that because of the students on board, the only fully qualified crewmembers on the aircraft were the instructor pilot and instructor loadmaster.

This was especially significant in the back of the aircraft.

Remember, the student loadmaster was only on his second flight in a real airplane. Yet because of the quality of training he had received prior to arriving at the flight line, he was able to skillfully assist his instructor and be part of the solution. Working together to move pallets, remove covers and run checklists, the loadmasters gave a clear picture of the situation at hand to the pilots who relayed it to the ground agencies that were helping solve the problem. Were the student not as well trained, the situation could have been that much more difficult for no more reason than the evolution in the back of the aircraft would have taken much longer to complete.

Teamwork

Many different entities contributed to the crew's success that day. Had the crew been forced to deal with this emergency completely on their own, they may not have had the same happy ending.

Air traffic control was the first player involved. Getting the aircraft under radar coverage, moved to a safe holding area and clear of other traffic allowed the crew to concentrate on the emergency rather than dodging the swarm of other C-130s in Little Rock's radar and visual patterns. The base launches and recovers more than 50 C-130 training sorties per day.

Next was the supervisor of flying, Capt. Bryan Huffman.

Upon learning of the impending emergency, Huffman took over as the single point of communication between the crew and all the required support entities on the ground. He handled a multitude of tasks that contributed to the crew's success. One of the first things he did was contact the J-model squadron's director of operations, who in turn, came immediately to the control tower with his flight manual in hand. With the DO's technical expertise, Huffman was better able to coordinate response and provide the crew the help they needed.

Additionally, Huffman established a phone patch with yet another player in the mix: Lockheed Martin technical support services in Georgia. Being able to talk to the Lockheed engineers, the crew got expert advice from structural authorities on ways to deal with that day's unusual emergency.

Innovation

Remember that the situation the crew found themselves in that day was not fully covered by any emergency procedure in the flight manual. There are procedures for lowering the landing gear when the normal hydraulic systems fail, but none of the written guidance was able to fully extend the aft landing gear to the full down and locked position.

So, the instructor loadmaster relied on two tools: his experience and his iPhone.

The sergeant's extensive experience as a former "E" and "H-model" C-130 loadmaster gave him one great advantage in this situation: He had used chains to secure unsafe landing gear in the past. Using chains for landing gear malfunctions is not covered in the J-model flight manual because of a different tie-down mechanism specifically designed for that aircraft.

The right main aft landing gear was still about 4 to 5 inches from full down. This seemingly small distance would not allow the J-specific tie-downs to work. But the quick-thinking instructor was able to get chains around both the forward and aft gear assemblies and secure them in place for landing.

Rewind the clock 10 minutes. The fact that the gear was even as far down as it was can be attributed to the other aforementioned tool: the loadmaster's iPhone. The iPhone allowed the instructor to take and e-mail a picture of the landing gear damage to maintenance crews.

Here's the twist: Use of cell phones in flight is prohibited. But let's also consider one of the first sentences in the C-130 flight manual, "… This manual provides the best possible operating instructions under most circumstances, but is a poor substitute for sound judgment. Multiple emergencies, adverse weather, terrain, etc., may require modification of the procedures."

The iPhone pictures provided maintenance crews a much better understanding of the extensive gear damage and enabled experts on the ground to provide accurate, timely and sound advice to the crew.

Everything came together that day and the outcome speaks for itself; a relatively minor mishap, with minimal damage to a very expensive aircraft. Were it not for the professionalism and skill of all players, capitalization of modern and relevant training, base organizational synergies, and the innovative use of technology, the outcome may have been tragically different.

— Lt. Joshua Fulcher

The loadmasters were forced to move heavy pallets while in-flight *because they needed to visually check the C-130J's malfunctioning landing gear.*

A DATE WITH THE

By Tech. Sgt. **LUKE JOHNSON**
Photo by **ROSE REYNOLDS**

Late one evening last winter, a U-2 Dragon Lady departed Beale Air Force Base, Calif., on a routine, high-flight training mission. But as the mission progressed, things started to go terribly wrong.

"I began a decent into Beale after about four-and-half hours," said Lt. Col. Joseph Santucci, commander of the 99th Reconnaissance Squadron. "When I clicked off the autopilot, the pitch trim ran full."

That sent the reconnaissance aircraft full nose down into a treacherous dive.

Santucci immediately began pulling on the yoke to keep the nose up and the airplane flying.

"After about maybe one minute, I realize this is not a normal emergency," he said.

Even worse, the colonel didn't believe he had the strength to control the jet for the time it would take to recover.

"I actually prepared for ejection once," he said.

Santucci could not hold the jet with just one arm, making it more difficult for him to troubleshoot the various systems in the aircraft. He had to use all of the strength in his arms and back to pull the yoke and keep the aircraft stable.

He said that he was so exhausted that "I really had trouble thinking after about 10 minutes of working through it."

During the entire ordeal, Santucci communicated with the supervisor of flying, as well as his mobile car driver, a U-2 pilot who drives a chase car to help guide in the aircraft during landings and to provide an extra set of eyes and ears on the ground during routine U-2 flight operations.

"They were able to think for me, so I could just fly the jet," the pilot said.

In the control tower, Capt. Eugene Georgescu, also with the 99th RS, was serving his first shift as supervisor of flying but recognized the severity of the situation. He notified Santucci's mobile driver and ordered all other aircraft to land to clear the airspace over the airfield.

"We began reading checklists to him," Georgescu said. "Most of his radio contacts were of him breathing heavily due to being overwhelmed in the handling of the aircraft."

With the help of his mobile driver and the supervisor of flying, Santucci slowed the U-2 to stall speed so he could hold the jet up to land it.

But the pilot faced other hazards.

"The disorientation of trying to hold the yoke while troubleshooting in the cockpit (was awful). I would move my head to find different systems in the cockpit; then I would have to recover again."

The weather was bad, and "there was no horizon and no moon illumination," the colonel said. "The disorientation was horrible for me; probably the worst I have ever experienced."

Santucci described it as tumbling around uncontrollably in a black room.

"The disorientation of trying to hold the yoke while troubleshooting in the cockpit (was awful)," he said. "I would move my head to find different systems in the cockpit; and by the time I came back to the artificial horizon, the jet would be in 20 degrees nose low and a lot of left to right bank. Then I would have to recover again."

Georgescu communicated his airspeed and altitude to the mobile driver and calculated his approach speed for him. The mobile driver read off checklists and helped the colonel maintain situational awareness.

"Even in the best conditions, it is difficult to land the U-2," Georgescu said. "And we knew in his situation, he was completely overwhelmed with the aircraft. The advantage of having a mobile

DRAGON LADY

U-2 PILOT AVOIDS CRASH, EARNS TROPHY

A U-2 pilot was nearly forced to eject *when his Dragon Lady started an uncontrolled nosedive that took all his strength, as well as help from "friends" back at his home base, to overcome.*

driver and (supervisor of flying) is that we can monitor the situation and read checklists while the pilot is focused on flying the aircraft."

Once the team put a plan into motion, Santucci felt a glimmer of hope that he would not have to ditch the aircraft.

"Once I got slow enough, I realized that I could probably just hold it for another half hour or so to get down," he said. "That made all the difference in the world. The problem then was just the disorientation."

At approximately 8,000 feet, though, Santucci emerged from the bad weather and was able to view the airfield.

As soon as he saw the runway lights, his disorientation ended.

"Once I caught a glimpse of the runway and the airfield, the gyros caged — just like that," he said. "It was really amazing to me how the human body is built to be attached to the ground."

Once he landed, Capt. Josh Massai unstrapped him from the cockpit, and the colonel made his way down the ladder.

"I think I underestimated how tired I was," Santucci said. "Before I knew it, I was laying on the ground face up looking at all these people bent over me trying to figure out what happened."

After getting out of his pressure suit, which U-2 pilots wear for their high-altitude missions, he was cleared to go home. The next day he went to the clinic for back pain, swelling in his right arm and overexertion.

"A little Motrin, and four days later I was fine," he said.

Santucci later learned that a small fire had broken out in one of the trim motors, and there was also some chafed wiring that grounded the circuit that ran the trim forward, full nose down.

"All of this had been happening while the autopilot was engaged, and the autopilot clutches were holding the jet up because they are fairly strong," he said. "Once I clicked it off, there was no autopilot to hold up the aircraft anymore."

For his efforts in landing the U-2 safely, Santucci was awarded the Koren Kolligian Jr. Trophy, which recognizes outstanding feats of airmanship by individual aircrew members.

But the U-2 pilot credits his mobile driver and the supervisor of flying for helping him to safely recover his Dragon Lady.

"Without the help of a couple of captains who were really good on the system, I don't know what would have happened," he said.

Sergeant Johnson is assigned to the 9th Reconnaissance Wing Public Affairs at Beale AFB, Calif. (ACCNS)

Lt. Col. Joseph Santucci, *of Beale AFB, Calif., wears a full pressure suit, which is required for U-2 pilots because of their high-altitude reconnaissance missions. The colonel earned the Koren Kolligian Jr. Trophy for safely landing his aircraft after a harrowing in-flight emergency. The Kolligian Trophy is awarded to aircrew members who perform outstanding feats of airmanship.*

CREW RECOGNIZED FOR DARING RESCUE

KADENA AIR BASE, Japan (PACAFNS) — Four members of the 33rd Rescue Squadron here have been recognized for their efforts in saving the crew of a downed Air Force aircraft, as well as three Soldiers, during combat in Afghanistan last summer.

Capt. Robert Rosebrough, 1st Lt. Lucas Will, Master Sgt. Dustin Thomas and Staff Sgt. Tim Philpott, the crew of an HH-60G Pave Hawk combat search and rescue helicopter "Pedro 16," were named the 2009 MacKay Trophy winners in May.

The MacKay Trophy dates back to 1912 and is awarded annually by the National Aeronautic Association for the most meritorious flight of the year. The award comes on the heels of the Kadena-based crew being honored by the Jolly Green Association for the most outstanding rescue mission of the year.

Courtesy photo

The crew of "Pedro 16" *poses in July 2009, at Kandahar Airfield, Afghanistan. Pictured are Capt. Robert Rosebrough (middle, standing), 1st Lt. Lucas Will (right, standing), Master Sgt. Dustin Thomas (far left, standing) and Staff Sgt. Tim Philpott (right, kneeling). The four Airmen, from the Kadena AB, Japan, 33rd Rescue Squadron, were recently announced as the 2009 MacKay Trophy winners.*

The crew of "Pedro 16" and "Pedro 15" came under enemy fire July 29, 2009, during a medical evacuation mission as part of the 129th Expeditionary Rescue Squadron at Kandahar Air Base, Afghanistan. Three Soldiers had been wounded near Forward Operating Base Frontenac when their convoy was hit by an improvised explosive device.

During the recovery operation, the crew of "Pedro 15" was shot down. The "Pedro 16" crew, along with Army OH-58 Kiowa crews, helped return the wounded Soldiers and downed aircrew back to safety.

"It could have been any crew in our place that day, and they would have performed the same," Rosebrough said. "(The honors) are a testament to the Air Force rescue community as a whole."

The crew will be recognized by Air Force leaders this fall when the MacKay Trophy is officially presented in Washington, D.C.

The MacKay Trophy and the Jolly Green Association awards bring even more acclaim to the 33rd Rescue Squadron, which was honored last year with the 2009 Verne Orr Award for most effective use of people and resources in pursuit of the mission.

— Maj. John S. Hutcheson
18th Wing Public Affairs

An HH-60G Pave Hawk *from the 129th Expeditionary Rescue Squadron flies June 12, 2009, over Afghanistan. The crew of "Pedro 16" saved a downed helicopter crew, as well as three soldiers, during a fire fight following an IED explosion. (Courtesy photo)*

X-51 MAKES **HISTORIC HYPERSONIC FLIGHT**

EDWARDS AIR FORCE BASE, Calif (AFNS) — An X-51A Waverider flight-test vehicle successfully made the longest supersonic combustion ramjet-powered hypersonic flight May 26 off the southern California Pacific coast.

The more than 200-second burn by the X-51's Pratt & Whitney Rocketdyne-built air breathing scramjet engine accelerated the vehicle to Mach 5. The previous longest scramjet burn in a flight test was 12 seconds in a NASA X-43.

Air Force officials called the test, the first of four planned, an unqualified success. The flight is considered the first use of a practical hydrocarbon fueled scramjet in flight.

U.S. Air Force graphic

An X-51A Waverider successfully launched *from the left wing of a B-52 Stratofortress May 26. The X-51A has been touted as a "leap in engine technology equivalent to the post-World War II jump from propeller-driven aircraft to jet engines."*

"We are ecstatic to have accomplished most of our test points on the X-51A's very first hypersonic mission," said Charlie Brink, an X-51A program manager with the Air Force Research Laboratory at Wright-Patterson Air Force Base, Ohio. "We equate this leap in engine technology as equivalent to the post-World War II jump from propeller-driven aircraft to jet engines."

The X-51 launched at about 10 a.m. from here, carried under the left wing of an Air Force Flight Test Center B-52 Stratofortress. Then, flying at 50,000 feet over the Point Mugu Naval Air Warfare Center Sea Range, it was released. Four seconds later an Army Tactical Missile solid rocket booster accelerated the X-51 to about Mach 4.8 before it and a connecting interstage were jettisoned.

Hypersonic flight, normally defined as beginning at Mach 5, five times the speed of sound, presents unique technical challenges with heat and pressure, which make conventional turbine engines impractical. Program officials said producing thrust with a scramjet has been compared to lighting a match in a hurricane and keeping it burning.

"This first flight was the culmination of a six-year effort by a small, but very talented … development team," Brink said. "Now we will go back and really scrutinize our data. No test is perfect, and I'm sure we will find anomalies that we will need to address before the next flight.

"But anyone will tell you that we learn just as much, if not more, when we encounter a glitch."

PILOT AND INSTRUCTOR **DIE IN FIERY CRASH**

According to a National Transportation Safety Board report released in April, a pilot's failure to maintain directional control during takeoff led to a fiery crash of a Brown RV-6 light aircraft that killed both the pilot and his instructor in Ama, La., Aug. 23.

The instructor pilot was a 42-year-old lieutenant colonel and commander of Air Force Reserve Officer Training Corps Detachment 320 at Tulane University in New Orleans. The civilian pilot, 61, held a private pilot certificate with an airplane single-engine land rating, board officials said.

When a Brown RV-6 light aircraft crashed *on take-off, each wing struck a tree, rupturing the fuel tanks. The spilled fuel immediately caught fire, killing the two pilots who were trapped inside the canopy.*

Local law enforcement officials said witnesses reported that the pilot had been anxious about flying the privately-owned, home-built airplane and had even frozen at the controls. So he elected to hire a flight instructor for further training.

According to the safety board report, the airplane initiated a takeoff roll at St. Charles Airport, a private airstrip, and shortly thereafter veered off of the runway to the left. Neither pilot was able to get the aircraft under control and applied full brakes as noted by the long skid marks. The airplane then struck several trees head-on at 30 to 35 mph, trapping both men inside, and was immediately engulfed in flames. An examination of the airplane, engine and related systems revealed no anomalies that would have affected the takeoff, the report said.

The New Orleans Coroner's Office performed autopsies on the pilots and determined both had survived the initial impact. The autopsy reports concluded that the cause of death was "partial incineration from fire secondary to (the) airplane crash."

The lieutenant colonel was a certified military and civilian flight instructor and a command pilot with more than 3,700 hours flying both military and civilian aircraft.

"A recent change in FAA (Federal Aviation Administration) regulations enhances the opportunity for Air Force instructor pilots to attain FAA certified flight instructor certificates and provide flight training to civilians," according to Col. John W. Blumentritt, Air Education and Training Command director of safety. "And while this opportunity may be used as a hobby, part-time job or post-Air Force career, the military flight safety culture that is bred into our professional aviators must be carried into this realm."