

THE LONG BLUE LINE Learning from State Line Will derial barries and barries

CHARTER



Bus crash survivor and Air Force helicopter crew that saved her are forever linked Page 8

FITNESS LIES I TOLD MYSELF

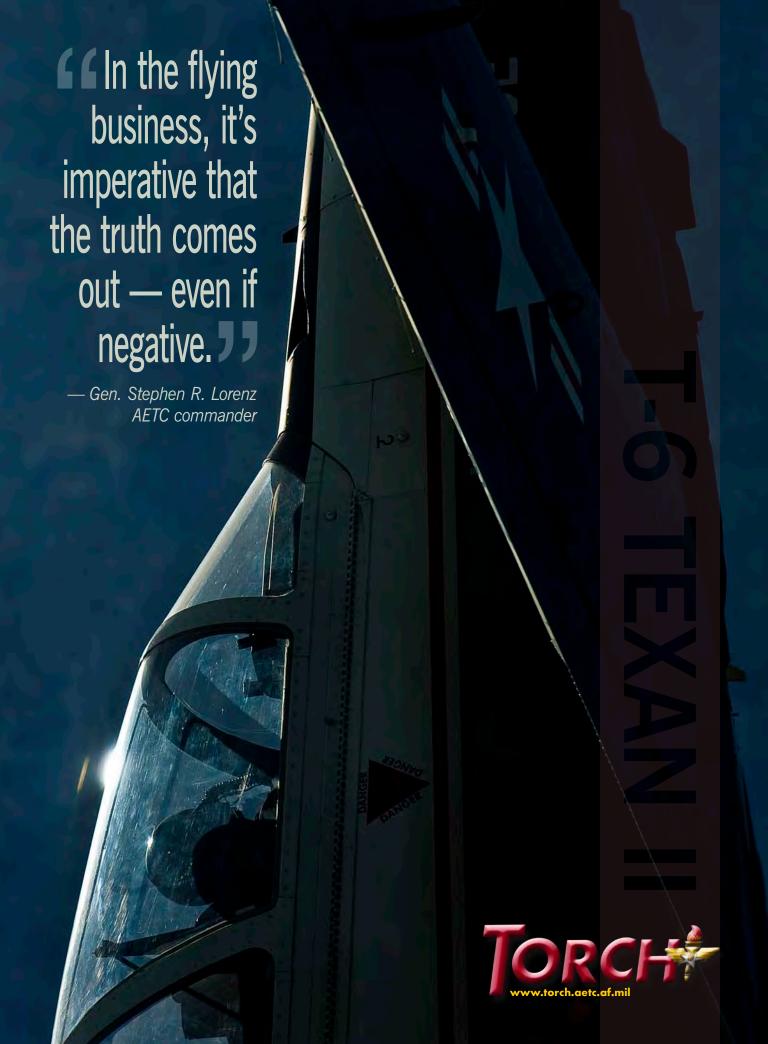
Getting ready for the

revised Air Force testing program

OFF THE GRID
Top five warnings from frack also apply to street

CREATING CANDOR Lessons learned

from a flight debrief







Departments

Disaster in the Desert

Fifteen years ago an out-of-control bus crashed on a desert mountain near Las Vegas. Elaine Hardy, who nearly lost her leg and her life, is forever linked with an Air Force helicopter crew that helped save her.

Fitness Lies I Told Myself

As the Air Force gears up for a revised fitness testing program that begins in January, the command chief takes a hard look in the mirror and discusses lies he's been telling himself that put up barriers to optimum fitness.

Here's a countdown of five tips at the motocross racing track that also can come in handy on the street.



Creating Candor

In his series on leadership, Gen. Stephen R. Lorenz, commander of Air Education and Training Command, talks about creating candor in the workplace by following the example set in a flight debrief.

TORCH TALK

Readers discuss outlawing motorcycles for military members, promoting safety awareness, texting while driving, water skiing, exercising, gun safety, drinking and driving, and more.



AROUND THE COMMAND

Third Strike on Bike: Surviving on roads filled with motorists ... What



TALES OF THE STRANGE

Lightning bolt kills golfer ... Lessons learned?

THE ALERT CONSUMER

The eves have it ... Just the facts.



HANGAR FLYING

The Long Blue Line: Lessons from grandfather's WWII aerial battles ring true today.

CLEAR THE RUNWAY

Tweet Retreat: Pilot training workhorse retires ... By the Numbers: T-37 flight mishap history ... Investigation reveals cause of F-22 crash, pilot death ... Human error leads to MQ-1B Predator crash.

Cover illustration by Sammie W. King Back cover photo by Tech. Sqt. Matthew Hanner **TORCH** – the official safety magazine of Air Education and Training Command

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MONEY IN THE BANK

o you like money? I do. And I like to put my money to work in ways that make more money.

Conversely, and with two kids in college and a comfortable lifestyle,

Conversely, and with two kids in college and a comfortable lifestyle, some of my money does not get put into growth areas. Instead, it is spent on things I want and need. But if I spend all my money, personal debt might mount and deficiencies in retirement would almost certainly occur.

Poor financial habits and unchecked spending would then result in an elderly John Blumentritt with no savings, lots of debt and a potentially uncomfortable lifestyle a couple decades from today.

Unfortunately, some studies suggest that many people are financially illiterate, don't save money and embrace debt. As such, they don't realize that decisions made today, regarding the present value of their money, will negatively affect the future value of assets and their lifestyles. Put another way, poor spending decisions today will negate the time

value of their money.

Do you like safety?
I do. And I like safety for many of the same fundamental reasons I like money. Practicing safe behavior today preserves resources, both materially and anatomically, that I plan to enjoy in the future. It's like

money in the bank.

"I like safety for many of the same fundamental reasons I like money. Practicing safe behavior today preserves resources, both materially and anatomically, that I plan to enjoy in the future."

On the other hand, unsafe behavior can have the opposite effect and generate debt. Wrecked vehicles will probably need to be repaired, and injuries may disfigure and permanently hamper mobility. Like spending money, I do accept and manage some risk such as flying aircraft and driving on vacations. But if I behave unsafely, I could generate a potentially uncomfortable future for myself.

We can attempt to affect the future by making good decisions today. For example, if a young Airman just entering the service saved \$100 each paycheck and put the money in a Thrift Saving Plan fund that averaged 6 percent compounded interest, he'd collect more than \$92,000 at the end of a 20-year Air Force career, nearly doubling his investment.

Using the same philosophy, dollars not spent on wrecked vehicles could be enjoyed later. Moreover, bodies not damaged or disfigured in a preventable mishap today could be used to play golf, tennis or another enjoyable activity many years from now.

Finance experts suggest that understanding the time value of money may be the most important step in financial management. As such, let's become skilled at the concepts of financial responsibility, and then apply that same model to safety.

In so doing, we can make safe behavioral decisions at the same time we smartly spend and save money. When these two ideas match, we improve our chances of being in a happy place during our golden years!

Joh W. Blumentrutt



OUTLAW MOTORCYCLES?

I read the article "Run Over by Car ... Twice!" (May/ June 2009 issue of Torch, page 4) and had to shake my head. It's great that the Airman used his protective gear and miraculously survived the accident. And it's also nice that he claims he's going to take a break from motorcycle riding "to let his body heal and give his family a break from the worry." But a larger issue has to be addressed.

> Why does the military allow its members to ride motorcycles in the first place?

I don't know how many stories I've seen over

the years on the different services "bragging" about how they invest millions of dollars to train individuals in various professions to become the best military in the world. Why not protect that investment?

Make military members sign an agreement that in exchange for all that expensive training, they can't get on a motorcycle.

I realize that this will sound like an extreme measure to many people, but organizations like the National Basketball Association make many of their professional athletes sign such agreements. And the players stand to lose pay and benefits if they break the terms of their contract.

Yes, I realize this suggestion will probably never grow roots in the military, but it pains me to see so many young troops getting hurt or killed on motor-

> Terry Green Cleveland

NO EXAGGERATION

Congratulations on another great issue of Torch. I just finished reading the May/June 2009 issue from cover-to-cover, and can say without exaggeration, it is by far one of the finest safety orientated publications I have seen. I am currently the executive director of the Air University Foundation; but from my safety officer experience in the old Military Airlift Command, I know how difficult it is to promote safety awareness — Torch does it in spades. From content to graphic design, it is first-class. Keep up the superb work.

> Retired Col. Joe Panza Maxwell Air Force Base, Ala.



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.



I'm glad you addressed the growing problem of texting while driving ("A Message to Die For," May/June 2009 Torch, page 7). People are flat out crazy when it comes to this bad habit — especially young drivers. It doesn't surprise me that it is quickly

becoming the new "driving under the influence." But much like drinking and driving, this is going to be a tough problem to stop. Teens are addicted to texting.

> Colleen Newberry Via e-mail

AD MEMORIES

Your story "Joe vs. H20" in the May/June 2009 issue (page 8) brought back some bad memories for me. A friend of mine was killed when the boat that was going to pick him up after a skiing run came in too fast and struck him. This happened many years ago, but the pain of the loss doesn't go away. Like the story in your magazine, there was some "hot-dogging" involved. Retired Maj. J. Williams Army Reserve



AN

Lt. Col. John Turnipseed ("True Grit," May/June 2009 issue, page 12) is an inspiration. After reading his story and what he's overcome, it's hard to find excuses not to exercise. ... But knowing me, I probably will anyway. (LOL)

> Tony Castillo Via e-mail





'GUNS AND ALCOHOL

Just read the "Tales of the Strange" article "Hold My Beer and Watch This!" (March/April 2009 issue, page 6). The artwork caught my attention, and the story was entertaining. I must say I was surprised as I read the story and discovered that the guy was a former cop. Then I was even more surprised to find out he is a current safety expert. But it just goes to show we all have our stupid human moments; he was just brave enough to share one of his. He definitely gets his point across — guns and alcohol don't mix!

> Airman Pete Martinez Via e-mail

REVER 16

Reference the story "It's Not Just About You," March/April 2009 issue, page 4, drunk driving definitely impacts more than just the drunk driver.

What did you do on your 16th birthday? My cousin died on hers.

I look back on that night, and there are still details I cannot recall. Maybe it's because I want to forget; then again, maybe it was from the amnesia I suffered.

On the night of July 24, 2003, we were headed back from my cousin's 16th birthday party. My cousin was driving, I was in the front passenger seat, and two friends were in the back. A red light caused us to stop about two blocks from our friend's house. We were talking and laughing about all that took place at the party. As the light turned green, my cousin started forward.

A drunk driver, driving at approximately 70 mph on a 45 mph road, ran the red light and hit the driver's side of my cousin's brand new sport utility vehicle. The impact snapped my cousin's belt and threw her out of the vehicle. As the SUV rolled, it crushed

My cousin died on-scene. My head

smashed against the passenger window, causing the glass to shatter and sending me into a coma. I also sustained bruised and broken ribs. One friend suffered only minor injuries, but the other wasn't as fortunate. She fractured her neck, and her legs were crushed. She is now a quadriplegic.

When I awoke from the coma my mom explained to me what happened. My heart broke into a million pieces.

The drunk driver was found about six blocks away. He just got out of his truck and left. They charged him with vehicular manslaughter. He now sits in jail, serving life in prison with no chance of parole.

My cousin was an outstanding person. She was loving, caring, happygo-lucky, and had an amazing sense of humor. She was extremely smart. She had jumped ahead a grade and was graduating early. She had a big future ahead of her.



Now all that remains is the fond memories and the pictures prior to the accident.

Don't be the reason someone else will be forever 16.

> Anonymous senior airman Goodfellow Air Force Base, Texas

ROWN HEALTH

THIRD STRIKE

SURVIVING ON ROADS FILLED WITH MOTORISTS

VANDENBERG AIR FORCE BASE, Calif. — It's Saturday evening, Oct. 11, and I am a mile away from finishing my second Ironman World Championships in Kona, Hawaii. It consists of a 2.4-mile swim, 112-mile bike ride, and a 26.2-mile marathon for the last leg. It is 140.6 miles — the equivalent of traveling from New York City to Washington D.C. in 17 hours or less. As my arms, legs and feet burn with pain and I'm driven on by the cheers of the crowd, I can't help but think how this moment almost never happened.

Somehow I survived the "three strikes and you're out" theory. First, in September 2006, I was 120 miles in to a 130-mile bicycle ride. The training ride ended 10 miles short when I collided with a car that was making a right turn. Apparently, the driver did not see me in his car's blind-spot and hit me with the right side of his vehicle. I flew over the right side of his hood and hit head-first into the ground, did a cartwheel, and finally ended-up on my back. Luck was with me, as I only sustained a bruised hip, which healed in about four days, allowing me to participate in my first ironman a month later.

Then in January 2007, I was riding in the middle of a bicycle squad, or "peloton," on a training ride. Someone in front of me hit his brakes abruptly, subsequently causing a domino effect. I hit his

front wheel, and my bike was thrown sideways. I crashed violently. The riders in trail smashed into me and fell on top of me.

I lay unconscious under the dog-pile.

Again fortune was with me: I suffered a concussion, but otherwise only had abrasions or "road rash" on my arm and leg.

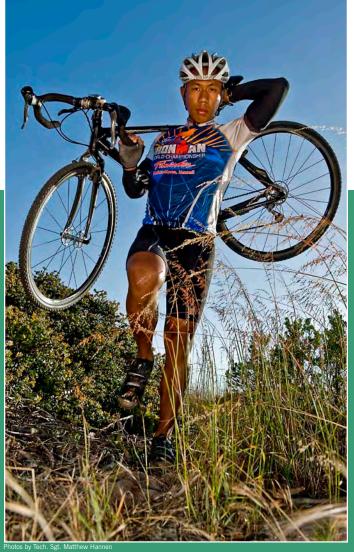
Turn the pages to April 2007, and I am lying in a hospital again. This time, the accident occurred at night. A car hit me while making a left turn at a three-way intersection. The driver was going forward, and I was pedaling opposite his direction. He clipped my left ankle with the front bumper of his car.

I suffered a sprained ankle initially, which later worsened and became a strained Achilles tendon. The injury took nearly seven months to heal. I dealt with a bit of disappointment because I'd been training for a qualifying race to my second ironman, and I had to squash that dream for the entire year.

Yes, I survived three strikes, but I also came away smarter after each incident (see "What I Learned in the Face of Death" below). Because at the end of the day, we all want to have fun, but we also want to live to tell about it.

— 2nd Lt. Neil B. Samson 366th Fighter Wing Public Affairs Mountain Home AFB, Idaho



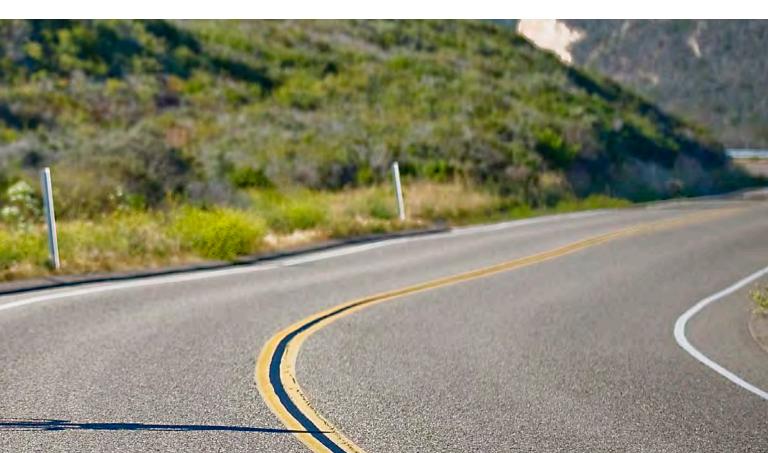


Second Lt. Neil Samson survived three near-death experiences while training for the Ironman World Championships in Kona, Hawaii.

WHAT I LEARNED IN THE FACE OF DEATH

- → First and foremost, wearing a helmet while bicycling is an invaluable tool that can save your life in the event of an accident.
- → If you cycle at night, at a minimum, have one bright light each for the front and rear of your bike so other drivers can see you. I always carry two lights mounted on the front of my bike and maybe a helmet-headlamp if traveling on country roads. For the rear, I carry two red lights mounted on the rear of my bike and one light for my backpack (if carrying one). Also, a reflective vest is a good idea.
- ♦ Never assume the right of way. Always assume that drivers don't see you and anticipate anything like a dog or a deer popping out in front of you while cycling full speed downhill or a teen texting while driving.
- → Always set the example: Don't run stoplights; don't take up the entire lane when unnecessary; be mindful of drivers; and know state traffic laws.
- ◆ It is always a risk to go out and bike. Enjoy the ride, but be aware of the risks and avoid complacency. Have a healthy respect of the road.

— 2nd Lt. Neil B. Samson



LIGHTNING BOLT KILLS GOLFER

MADISON, Wisc. — A Madison golfer's tragic death from a lightning bolt is serving as a reminder that Mother Nature can strike anywhere.

An 18-year veteran Madison police officer said he had seen a lot of gruesome and disturbing scenes, but this one was different because it "hits close to home" and many people have been in a similar situation.

The 75-year-old golfer was out on the course with three other retired friends one Monday morning for a regular weekly tee time.

They teed off and got around to the back nine when it started to rain. When they spotted a little lightning way off in the distance, they headed toward the clubhouse. Halfway there, the rain turned into a heavy downpour, so they waited under a tree. When the rain let up a little bit, three of the foursome continued toward the clubhouse. But one of the men decided to wait it out under a 50-foot pine near the 11th hole.

Minutes later a lightning bolt struck his bag and push cart

as he was holding onto one of his clubs. The white hot saber killed him instantly. They found his body 20 minutes later.

Photos from the scene (see filmstrip below) show what was left of his driver and putter. Most of the items in the bag simply disintegrated from the heat and intense initial zap, including the labels to his Ping irons and Cleveland woods (which all popped off). The electricity burned holes into the bottoms of the clubs. The photos also show little brown clumps, which used to be golf balls. The power of the strike also left a large gash in the course that gave responding emergency personnel "goose bumps."

The strange thing is the tree under which the victim had been standing had no sign of a lightning strike. The bolt literally went sideways under the tree to the golf clubs.

Most golf courses post signs and warn golfers of severe weather before they tee off, but it is still up to the individuals to seek shelter.

New York State Association of Fire Chiefs

LESSONS LEARNED?

- Before heading to the golf course, check weather reports, and curb your outdoor activities accordingly.
- At the golf course heed all weather warnings.
- If you see lightning off in the distance, head to the clubhouse or other indoor shelter immediately. Don't wait!
- If you cannot get to an enclosed building, go to a low-lying, open place away from trees, poles or metal objects. Ensure the

place you pick is not subject to flooding. Distance yourself from anything metal or graphite. Remember, lightning rods are often made of graphite. It's a good idea to place your cart at least 50 feet away from you.

For additional emergency preparedness information please visit: www.redcross.org.

New York State Association of Fire Chiefs



CONSUMER

THE EYES HAVE IT

RANDOLPH AIR FORCE BASE, Texas — An Aiman struck the head of a nail with a hammer. The nail head had some imperfections, that when struck, sent metal shavings shooting through the air. Three of the microscopic shrapnel ended up in the Airman's right eye. It didn't hurt. As a matter of fact, at the time, he wasn't even sure any foreign object entered his eye. But when he awoke the next morning, his eye was burning, red and swollen. He had to have fragments\ removed with a "surgical pick" and had to wear an eye-patch for a couple of weeks.

A Soldier was playing racquetball when a ball zinged off his opponent's racquet only to catch the Soldier squarely in the eye, detaching his retina.

A Sailor suffered corneal sunburn after a day at the lake.

All three mishaps had one thing in common. None of the servicemembers wore the appropriate eye protection.

Protecting your eyes from injury is one of the most basic things you can do to keep your vision healthy throughout your life.

You may be somewhat aware of the possible risks of eye injuries, but are you taking the easiest step of all to prevent 90 percent of those injuries: wearing the proper protective eyewear?

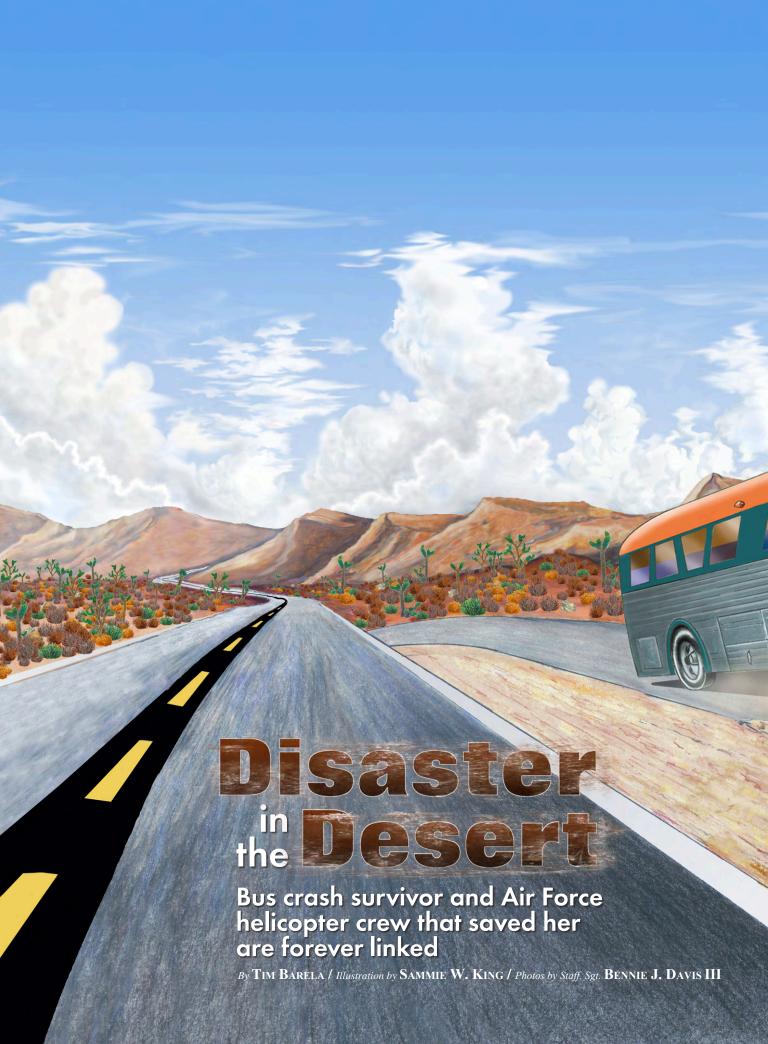
If you are not taking this step, you are not alone. According to a recent national survey by the American Academy of Ophthalmology, only 35 percent of respondents said they always wear protective eyewear when performing home repairs or maintenance; even fewer do so while playing sports.

— Tim Barela

JUST THE FACTS

- Men are more likely to sustain an eye injury than women.
- Nearly half (44.7 percent) of all eye injuries occur in the home.
- Over 40 percent of the injuries reported were caused by projects and activities such as home repairs, yard work, cleaning and cooking.
- More than 40 percent of eye injuries every year are related to sports or recreational activities.
- Eyes can be damaged by sun exposure, not just chemicals, dust or objects. Wearing sunglasses can help.
- Among all eye injuries reported, more than 78 percent of people were not wearing eyewear at the time of injury. Of those reported to be wearing eyewear of some sort at the time of injury (including glasses or contact lenses), only 5.3 percent were wearing the appropriate safety or sports spectacles.

— Eye Injury Snapshot Study, American Academy of Ophthalmology





laine Hardy lay in the overturned bus and knew she was in trouble.

Her left leg hung out of a shattered window, and her foot dangled grotesquely, seemingly attached only by the skin. But that wasn't the worst of it. Her right leg looked as if a Nile crocodile had clamped down and twisted it over and over in its notorious death roll until the limb tore open from the top of her thigh to just below the knee. Her femur poked out of the thigh like two pieces of a broken broomstick where it had been snapped in half. If help didn't arrive soon,

she would bleed to death.



When two "old friends" reunited in Boulder City, Nev., in late June, they weren't getting together to enjoy the glitter and gambling in Las Vegas, just 20 miles up the road. They had a lot to talk about. The last time they'd seen each other had been 17 years ago, on July 21, 1992, and not under the best of circumstances. Elaine Hardy fought for her life that day when a bus loaded with Girl Scouts she was chaperoning lost control and crashed while heading down Mount Charleston, the highest peak in the Mojave Desert at 11,918 feet. Col. John W. Blumentritt had been one of her rescuers.

A captain and chief of safety assigned to the 66th Rescue

Squadron, Nellis Air Force Base, Nev., at the time, Blumentritt had been one of the pilots who flew Hardy out of peril. The HH-60G Pave Hawk helicopter crew consisted of two pilots, a flight engineer and two pararescuemen.

That fateful day began when Hardy volunteered to escort some Girl Scouts to a camp on the scenic

mountain. Her daughter, Jamie, was a 7-year-old Brownie at the time, and Hardy felt she would be more comfortable if escorted to the campsite by her mom. After the drop-off, Hardy agreed to chaperone some older Girl Scouts who were returning home from the camp.

"On the way up Mount Charleston, we could see the old charter bus was having problems," Hardy said. "The air conditioning didn't work — not good since it was the middle of summer in the desert. But it kept chugging along. It was annoying, but when you're on public transportation, you just assume that everything is going to be fine."

However, on the way down the mountain, irritation turned

With 41 Girl Scouts, ages 10 to 12, on board, in addition to Hardy and the bus driver, things went terribly wrong. Hardy, who had been sitting just behind the bus driver, kitty corner to

"(The bus driver) had to try something

to slow us down because we weren't

going to make it down Mount Charleston

with no brakes."

him, noticed the bus picking up speed. She saw the driver pushing on the brakes ... no response. Then he desperately tried to downshift the vehicle, but it became jammed in neutral.

The bus driver tried to warn everyone of the impending impact.

"I was the only other adult on the bus, so I stood up, turned

around and called out, 'Hold on and put your heads down!'" Hardy said.

Just as she sat back down, the driver aimed the bus at a pile of gravel at the side of the road that had been placed there for some pending roadwork.



"He had to try something to slow us down because we weren't going to make it down Mount Charleston with no brakes," Hardy said.

They hit the mound at nearly 70 mph, but instead of slowing the bus down, it launched it in the air as if jumping off a ramp.

"I thought, 'This may be the day I die,' " she said.

The bus flew 80 feet and came down on the front right corner where Hardy was sitting. Then it flipped on its side and slid down the roadway nearly the length of a football field before it came to rest on its roof.



Inside the mass of metal, the girls had been jostled like Yahtzee dice.

"The first thing I thought was, 'I'm still alive. I can't believe I'm still alive," Hardy said. "My next thought was, 'How many of the girls have died?"

As the dust settled, Hardy took in the chaotic scene. She saw girls frantically scrambling to exit the mangled bus.

"Some of the girls were in shock and started running down the road. ... (It seemed) they were going to run all the way back to Las Vegas," she said. "The ones who remained calm were trying to soothe the ones who were more hysterical."

She didn't know it at the time, but while 40 people on the bus were hurt, only four had serious injuries (hers being the worst).

Soon, Hardy was alone in the bus. She could see one girl outside wildly pawing at the dirt to dig out her foot, which was trapped under the 26,000-pound vehicle.

Partially buried in a pile of gravel and rubble, Hardy took stock of her horrendous injuries and realized she wasn't going anywhere under her own power.

"I remember wiggling my toes and thinking, 'OK, that's a good sign," she said.

But with her entire right thigh filleted, she still felt she might bleed to death. She jammed her hand into a pressure point near the gaping wound to slow the gushing blood ... and waited.

While Hardy's fate hung in the balance, Blumentritt and the other pilot had just ordered lunch at the officers' club at Nellis when their alert beepers went off. With one last hungry look, they left their trays of food behind and rushed to the squadron.

Joined by the flight engineer and two pararescuemen, the crew headed toward their helicopter, which basked quietly in the Nevada sun. Minutes later, the twin engines of the Pave Hawk thundered to life, and the four rotor blades began to turn. The pararescuemen checked and rechecked their lifesaving equipment. Blumentritt, strapped in the copilot seat, shook a chart from his flight bag and plotted a route to the crash site.

"We knew someone had called in a bus crash, and that our commander was assessing details, weighing options and considering risks before clearing us for flight," said Blumentritt, who is now Air Education and Training Command's director

Seconds after ordered to launch, the 10-ton chopper

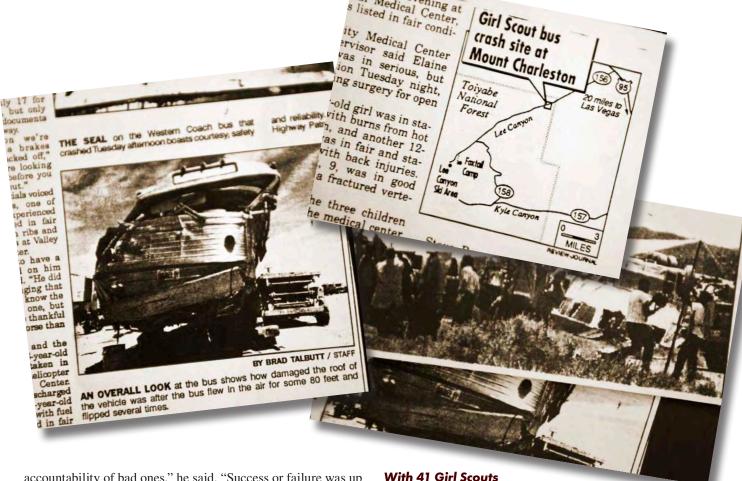
lifted off in a cloud of dust and turned toward Mount Charleston.

"En route the radio chatter was endless," Blumentritt said. "We were getting conflicting reports. People on one side of the bus were calling in and saying there was no one seriously injured. But on the other side of the bus, it was a whole different world. Those people were calling in and saying there were three or four victims seriously injured."

Amid this commotion on the radio, Blumentritt appreciated the efforts of everyone sending information, but knew the crew of five — not the people chatting on the radio would "garner the benefits of good decisions or bear the

Pointing in the direction the rescue helicopter landed,

Col. John W. Blumentritt and Elaine Hardy reminisce at the site of the bus crash that nearly cost Hardy her right leg. Inset, Hardy's eyes well up as she recounts the emotional details of the mishap.



accountability of bad ones," he said. "Success or failure was up to us."

When the team arrived on-scene, they swooped over the jumbled mess and noted the chaos below.

"It was like a movie scene — bus upside down, wheels in the air, people scurrying about," Blumentritt said. "I initially wondered how many people might be dead, but then quickly shifted my mind toward the job at hand.

"We were landing in an unfamiliar area with many hazards." We had to consider winds and terrain. It was tough to judge the height of the many Joshua trees. Plus, we wanted to get as close to the victims as possible, but not so close as to cause more

damage and injuries from the force of our rotor wash."

Once the rescue team selected a safe spot to land and the angle of the approach, Blumentritt and the rest of the crew peered out the windows and doors of the aircraft to ensure they wouldn't hit any trees.

They landed, and the pararescuemen quickly exited the aircraft.

"By then there were some ground emergency crews on scene and they passed on two critically wounded patients to us," said Mike Davis, who was a staff sergeant at the time

and now serves with the Las Vegas Fire Department. "There was a woman (Hardy), whose thigh had been ripped apart and foot mangled. Amazingly, she was as calm as could be."

They splinted her leg and strapped her to a stretcher. Then, they packed the wound full of gauze and applied pressure, and wrapped the bone ends to protect them as well. They did the same thing for her foot. The pararescuemen also hooked her up to an IV and oxygen.

The other patient, a young girl, had a concussion and neck injury. She also was in shock.

on board, the bus crash made national news.

"The Girl Scout tried to sit up while we were in flight to the hospital," Davis said. "She saw the woman's leg, moaned and went pale. She was more freaked out by the lady's injury than her own. I don't blame her, though. I didn't think there was any way they'd be able to save that shredded leg."

Hardy had her doubts as well; nevertheless, hearing the

helicopter rotor blades was music to the piano teacher's ears and helped lift her spirits.

"I was so happy to hear the sound of the helicopter coming in," she said. "Then I remember seeing these two guys in their green flight suits and dark helmets with black visors (the pararescuemen). I couldn't see their faces, but they were still a welcome sight."

As the PJs moved the two patients on board the HH-60G, Blumentritt glanced back and saw the floor of the aircraft become im-

mediately drenched in blood. He felt a sense of urgency, but had to keep his emotions in check and focus on the next phase of the rescue mission — taking off from the dangerous, remote area.

"It wouldn't do anybody any good if we panicked, made a mistake during our departure and crashed the aircraft," Blumentritt said. "We followed our checklists quickly but closely and then safely made a beeline for the hospital."

They were directed to take the crash victims to University

"(The Girl Scout) saw the woman's leg, moaned and went pale. She was more freaked out by the lady's injury than her own. I don't blame her, though. I didn't think there was any way they'd be able to save that shredded leg."

Medical Center in Las Vegas, but soon learned of another challenge ahead.

"We were told the helicopter pad on top of the hospital parking garage couldn't handle the weight of an HH-60G," Blumentritt said. "Not only that, but the Pave Hawk is way more powerful than the typical emergency medical service helicopters that used the pad. Our rotor wash could blow people and gurneys right off the roof."

So the local police blocked off an intersection near the hospital, and the rescue crew landed their bird on a street not far from the Las Vegas strip.

"Sixty minutes earlier we were worried about landing near Joshua trees, gullies and an overturned bus," Blumentritt said. "Now we found ourselves squeezing between buildings, watching for wires, catching some wind gusts, avoiding vehicles and hoping no one would run up to the helicopter too soon. Not only that, debris from the street, an old rope or wire, or even the sheet from a gurney could get sucked into the rotor blades — very hazardous. Let's face it; you don't really get to practice landing on the streets of Vegas during training missions."

After being carefully off-loaded from the helicopter, an ambulance rushed Hardy to the nearby hospital. When medical technicians wheeled her into the emergency room on a gurney that had been stained crimson, it was easy to see why she needed seven units of blood.

Doctors doubted they could salvage Hardy's right leg. An inch of her femur was gone, and gravel was ground into the open wound. Miraculously, between her orthopedic and plastic surgeons, they managed to save the limb, even rebuilding the missing piece of bone. But that was just the beginning of her recovery. Hardy spent nearly eight weeks in the hospital on total bed rest. When she returned home, she progressed to walking with crutches over the next four months. Then she traded the crutches for a cane, which she used for the next six months.

A full year after the mishap, the determined woman finally took her first unaided steps.

"I made a very good recovery," she said. "I have some big scars and a large part of my thigh is missing, but today I'm even able to water-ski — one of my favorite pastimes."

In a letter that Hardy, a wife and mother of two, wrote to the helicopter crew three months after the bus mishap, she said, "I'm the 36-year-old lady that you transported following the bus crash on July 21. I wanted to thank you for your help and let you know how I'm doing. It was a welcome sound when I heard your helicopter land. I'll be forever grateful for your assistance and excellent care while taking me to the hospital that day."

Seventeen years later, she was just as grateful. She hugged Blumentritt with tears in her eyes, and her voice cracked as she whispered, "Thank you, again."

CHECK IT OUT!

TOP THREE ITEMS TO INSPECT TO AVOID MISHAP

BRAKES: Well-maintained brakes can save your life. The foot brake must be capable of stopping the vehicle within a distance of 25 feet at a speed of 20 mph. The parking brake should be adequate to stop and hold the vehicle.

TIRES: Bald, excessively worn or improperly inflated tires decrease the driver's ability to control the vehicle.

LIGHTS: Faulty lights can lead to accidents. Ensure that all of your lights work and light lenses are clean. Check headlights, taillights, directional signals and interior lights.

— SafeMotorist.com



Elaine Hardy displays a T-shirt that friends gave to her while she recovered in the hospital. The shirt includes a picture of emergency workers loading her onto the HH-60G. Col. John Blumentritt was one of the pilots on that flight.



s we prepare for the revised Air Force fitness testing program, I've spent the last couple of months educating myself on diet and fitness — subjects I thought I knew plenty about.

I was mistaken.

Throughout my career I've prepared for and passed each physical training test. Although I never scored high, I felt good because I always passed, and I told myself I'd done my best.

I was wrong.

I'd actually done just enough to get by and made excuses for not doing better. I'll share some of the lies I discovered I was telling myself. Some of them may sound familiar to you.

1. The weight standard/waist measurement (take your pick) just isn't fair to tall/big guys like me; we're "bigboned."

I've heard people say this many times over the years and spoke those words myself. I finally had to admit they are not true. I am not "big-boned"; I am "big-spooned." That's right, I like to eat more than I like to exercise, and I can eat faster than I can run.

One day I realized I was 29 pounds heavier than when I enlisted. I didn't have 29 more pounds of bone, just 29 more pounds of lunch hanging from the bones I already had. It is a simple formula: My weight and waist went up as my calorie intake went up and exercise went down.

The good news? The opposite is also true.

One more thing, there is no waist measurement in the new fitness program, it is an abdominal circumference. The measurement is taken above the iliac crest (the top of the hip bones). The only bone structure there is the spinal column. I don't have a 38-inch spine.





Being "big-boned" is a myth when it comes to the abdominal circumference measurement. The measurement is taken above the top of the hip bones, and the only bone structure there is the spinal column, which accounts for approximately 6 inches.

2. I can run for a long time but I can't run fast.

I've always enjoyed jogging but never worked on speed. I like long slow runs. When preparing for my test, I usually added an extra mile or two. Sadly, it is impossible to get faster by running slowly, even if you run slowly for a long time. My local health and wellness center helped out with a running clinic. They provided helpful information on selecting proper shoes for my running style/form as well as instruction for safely adding interval training and other speed work to my routine. I am not the fastest runner on base, but my times are steadily getting better.

3. I've never been a "strength guy," and with my "bad back" getting max points on the pushup portion of the test is simply out of reach.

While it is true I have never been particularly strong, it turns

out this is not genetic. I find pushups, crunches and other forms of strength training to be pretty boring. Therefore, I seldom did any. When I did try, I soon felt pain in my back and stopped. What I've learned is that my back is actually doing quite well. I lacked good core conditioning.

After reading an article on how to use core conditioning and strength training to ensure good support to the spine, I decided to give it an HONEST try. I was very happy to find both my crunches and pushups improved considerably. Best of all, when I have to stop it is usually not from pain but from muscle fatigue. I am not where I want to be yet, but the goal is in sight.

If you are having problems in this area, go see the HAWC or the fitness center staff. They will provide help to get you started.

4. It is very important to get ready to take my PT test.

This is perhaps the biggest lie of all. It isn't important to get ready for a PT test; it is important to get fit — period. I don't want to be "fit to test" or even to just be "fit to fight." I want to — no, I need to — be "fit for life." I want a long, healthy life unmarred by preventable weight-related medical problems like diabetes, high cholesterol and high blood pressure. I don't want to keep growing larger, especially since that impacts my ability to keep growing older. I love my wife and daughters, and I adore my grandkids. I am determined to spend as much time with them as I can. I want to develop sustainable fitness habits which will last a lifetime. Give yourself and your family the gift of good health. Let the Air Force fitness program motivate you to take better care of yourself.

Exercising? Get off to a smart start

Check with the experts. Talk to your doctor and to the professionals at the health and wellness center to get off to a safe, smart start.

Start slowly. You have to gradually build up to the desired intensity level, or risk injury.

Drink plenty of fluids. Dehydration is a real health and safety risk.

Do a proper warm-up before exercising. This gradually warms the muscles, including the heart, so they can safely respond to the demands of the physical activity.

Stretch. Stretching is important but should be done after the warm-up to prevent injury.

Cool down. This brings the body back to normal by using slow and gradual movements to prevent pooling of blood.

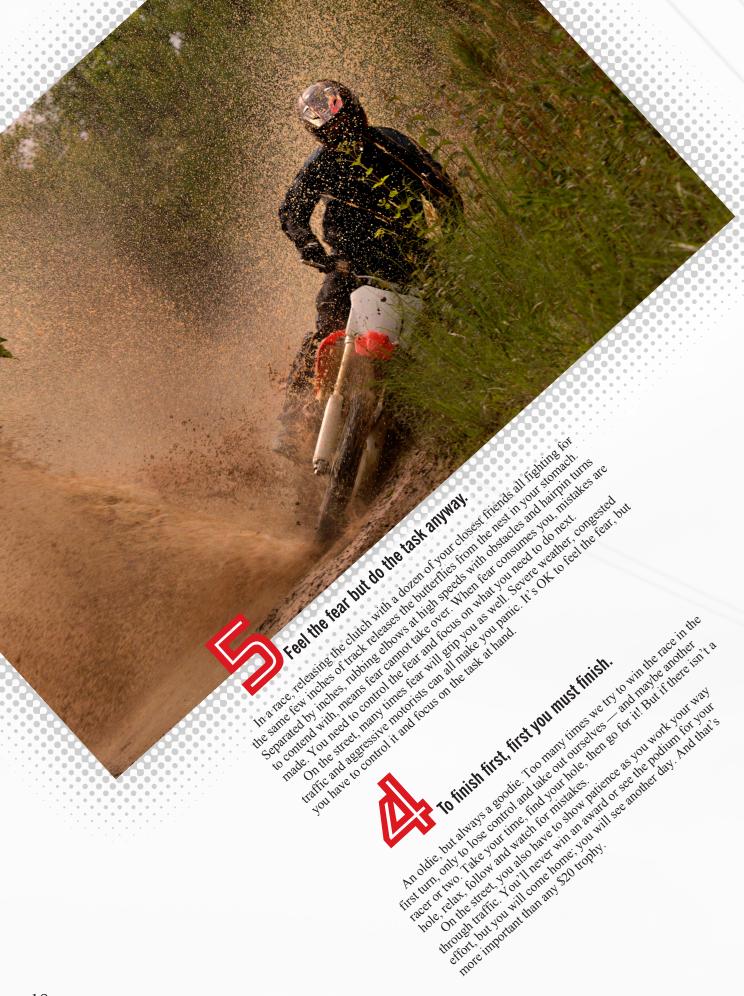
Train regularly. If you train too little or too much, your risk of injury goes up. Three to five times a week is needed for maintenance.

Train with a partner. The buddy system not only provides motivation, but it also provides a safety net should you need a spotter while lifting weights or succumb to heat stress on a run.

> - President's Council on Physical Fitness and Sports









Creating Lessons from a flight debrief Cannor

By Gen. STEPHEN R. LORENZ
Photos by Tech. Sgt. MATTHEW HANNEN

f you ever have the opportunity to observe a flight debrief after a training sortie, you should jump at the chance. You will witness something special.

In the debrief, everyone makes constructive comments — positive and negative — regardless of their position or rank. If the flight lead did something that was incorrect or dangerous, the wingman is expected to say something about it. This is true even if the wingman is a lieutenant and the flight lead is a lieutenant colonel (or a lieutenant general).

In the debrief, learning is more important than saving face. In the flying business, it's imperative that the truth comes out — even if negative. Perfection is the standard; and although we will never get there, we must always strive for it. This is why we are tough on each other. When the debrief is over and the door opens, however, we move forward as members of the same team.

Should it be any different for our other operations? I don't think so, but it takes a strong leader to create this atmosphere of candor. We all like "warm fuzzies," when people agree with our ideas

and give us positive feedback. We naturally dislike "cold pricklies," when people disagree and point out our shortcomings. As leaders, we have to be mature enough to deal with negative feedback without punishing the source. The best leaders encourage frank feedback, especially when it is negative.

We all have blind spots — areas where we think things are better than they are — and to correct these, we need to be aware of them. This means that we need to encourage dissenting opinions and negative feedback. We should ask open-ended questions. What are we missing? How can we do this better? What's the downside? What will other people say? When our people answer, we should welcome their inputs, even when those inputs don't cast our leadership in the best light.

In the end, our time as leaders will be judged by the quality of our decisions and the accomplishments of our people. The personal price we pay in the short term for creating candor in our organizations is well worth the long-term professional and institutional benefits of hearing the best ideas and eradicating our blind spots.



As followers, we must work at creating candor as well. While the leader must set the tone for open communication, it is important that those of us who voice dissenting opinions or give negative feedback do so in a way where it can have the most effect. We can't expect our leaders to be superhuman—this means we should speak in a way that doesn't turn them off immediately.

You should avoid emotional arguments. Instead, use facts and logic to back up your position. The more homework that you do beforehand, the more likely you will win the argument.

In addition, when voicing your disagreement, be prepared to propose a solution or alternative path. This allows you to stay positive during a critique. If you can't come up with a solution, at least be honest about that up front.

If you are pointing out a blind spot for one position or rank. of your leaders, strongly consider doing it in private. This is especially true if the issue is more personal in nature.

It's much easier for a leader to listen to a criticism made in private you want to avoid embarrassing your leader in public if at all possible.

We should also remember that the leader is ultimately responsible for the direction of the organization. If he or she decides to do something that you disagree with, you should voice your opinion, but be ready to accept the leader's decision. Remember, most decisions are decided based on personal experiences and are not right versus wrong, but right versus right. So long as the boss's decision isn't illegal or immoral, you should carry it out as though the idea was your own. That's the mark of a professional Airman.

Within our organizations, candor makes us stronger, and there are



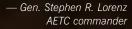
In a flight debrief, everyone makes constructive comments — positive and negative — regardless of their position or rank.

things we can do to create this openness while maintaining a sense of teamwork. As leaders, we should strive to set an atmosphere where dissenting opinions are welcomed. As followers, we should explain dissenting opinions with respect and objectivity. For both leaders and followers, the payoff will come as your organizations improve and grow.

Consider it part of the price we pay to be the best.

This article contains excerpts from a commentary General Lorenz wrote on creating candor in the workplace. For the full story, to include the responsibilities of followers as well as leaders, please visit www.aetc.af.mil/news/story.asp?id=123140986.

"As leaders, we have to be mature enough to deal with negative feedback without punishing the source."







THE LONG BLUE LINE

LESSONS FROM GRANDFATHER'S WWII AERIAL BATTLES RING TRUE TODAY

By Maj. BRENT G. BROCKINTON



During surrender ceremonies in Tokyo, Japan, F-4Us and F-6Fs fly in formation over the USS Missouri (left foreground) Sept. 2, 1945.

spent the entire summer of 1981 listening to my grandfather talk about flying. From then on, I knew I wanted to be a pilot.

Navy Capt. Richard E. Britson, my grandfather, was an F-6F Hellcat pilot during World War II. He passed away in 1995, but I vividly remember two of his stories. As my own experience as an Air Force pilot grew, these became more than just exciting stories for me: they became life lessons.

In the first story, he earned the Navy Cross for sinking a battleship. His citation reads, "Leader of a flight of fighter planes from Fighting Squadron Eighty Two flying off the U.S.S. Bennington, in

the Japanese Inland Sea on March 19, 1945, Lieutenant Britson escorting bomber and torpedo aircraft bombers led strafing attacks on enemy battleships. He scored a direct hit and seriously damaged one battleship."

The best part of the story was hearing about the sheer number of aircraft and bullets in the sky and how incredibly brave and inexperienced his wingmen were as they attacked heavily-defended battleships. He often spoke about how lucky he was to still be alive.

The second story is my favorite. My grandfather was closing into gun range on a Japanese Zero over the Pacific Ocean near

Okinawa when he smoothly squeezed the trigger, destroying the enemy aircraft. But he was too close to the fireball, and suddenly he was blinded. Oil covered his windscreen, and sections of the enemy plane took out part of his tail and elevator.

He froze momentarily in fear as he saw red fluid pooling beside him. Thankfully, it turned out to be hydraulic fluid and not blood. He wasn't injured, but his airplane was low and barely controllable. Based on his altitude and aircraft damage, his only option was to ditch the aircraft. He leveled it and slowed down as best he could before he hit the water. Fortunately, he got out of the plane safely and was rescued a short time later.

The long blue line is often referenced when talking about lineage of Air Force Academy cadets. Instead of thinking about it in terms of the Academy legacy, I think about it compared to fellow aviators like my grandfather. Just like driving a car is difficult for the average 16 year old, so is flying. As a new student pilot your situational awareness is usually very low. As an experienced instructor pilot, your situational awareness is typically high. However, as your experience increases so can complacency.

The key is to know where you are on the long blue line and remember to consider your strengths and weaknesses as you learn more about your craft.

Since WWII, there have been dramatic improvements in aircraft safety. However, even with the advances in flight safety, you are still only one second away from ending your flying career (or your life). You must take every moment seriously from the instant you step to the jet and climb into your cockpit until you get out of the aircraft after engine shutdown.

As a new aviator, you must try to gain experience by listening, reading, studying, chair-flying and flying. My near mishaps as a new pilot were usually attributed to low situational awareness.

In 1996, I was waiting to cross the runway after my first solo flight in the T-38. After about 10 minutes, a garbled transmission came across the radio. I instantly assumed it was

"North cross one." meaning the north aircraft was cleared to cross the inside runway. In reality, the call was "South cross one."

As I was halfway across the runway, I noticed a light from the end of the runway coming toward me. The light was from a T-37 in the middle of take-off roll. I was able to continue across the runway safely, but I caused a great deal of angst for the departing aircraft and the tower controllers.

Needless to say, I had to see that ride again.

One of the keys to take away is not to assume anything. Remember, the sortie is not over just because you are on the ground. You can't rest until the engines are shut-down, and the jet is chalked.

Your situational awareness increases as you gain experience, but it does not mean you are less likely to have an incident.

As a more experienced aviator, you must guard against complacency. My near mishaps as a more experienced pilot were generally because I got too comfortable.

As I transitioned from a new pilot to a brand new F-15C flight lead in 2000, I had an opportunity to gun my flight commander for the first time. I had recently finished my flight lead upgrade program and considered myself pretty good at basic fighter maneuvers.

But I was too complacent.

"He smoothly squeezed the trigger, destroying the Japanese Zero aircraft. But he was too close to the fireball, and suddenly he was blinded."





Following in his grandfather's footsteps, Maj. Brent Brockington became a fighter pilot. Navy Capt. Richard Britson was an F-6F Hellcat pilot during World War II. His stories became life lessons for his grandson, an Air Force F-15C pilot.

I did everything correct, except properly set up the master arm, which allows the aircaft to fire. My break turn was nearly perfect. I assessed my turn circle entry and modulated power as I approached the gun weapons engagement zone. I relaxed back stick pressure and smoothly came down on the trigger. My range to the adversary aircraft was 1,500 feet, but we were both about 30 degrees nose low. I expected to see the simulated bullets show up on the aircraft I was shooting any second. ... Nothing. I released the trigger and tried again. ... Still nothing.

The range was now 700 feet. I looked around and noticed the master arm switch was still in the "safe" position. One second later, I switched the master arm on and noticed the other aircraft getting extremely large in my canopy as my bullets finally showed up on his aircraft. The range had closed to well inside of 500 feet (the minimum distance). If the bullets were real, I would have been taken out by the debris of the enemy aircraft.

There was no excuse for my

Just like my grandfather more than 50 years earlier, I was too close to my work, and it almost ended in catastrophe. We passed too close together for no reason other than my complacency. After the flight, I had an excellent debrief. I will never make that mistake again.

Mistakes like these happen all too often. I was lucky that day, but I hadn't internalized my grandfather's

stories. Sometimes it takes a really close call to turn on the light. My hope is someone will hear my story, and the light will turn on early. Instead of scaring the tower or hitting his flight lead, he will cross the runway with clearance or "gun" his flight commander "safely."

The key is to know where you are on the long blue line and plan accordingly. Let's not risk our own lives because we are complacent or unprepared. Fight's on!

Maj. (lieutenant colonel select) "Raygun" Brockinton is assigned to the Air Land Sea Application Center at Langley Air Force Base, Va. He is a T-38A/C and F-15C instructor pilot.

TWEET RETREAT PILOT TRAINING WORKHORSE RETIRES



A T-37B Tweet heads to the "boneyard" at Davis-Monthan AFB, Ariz., July 31. It was the last of the Air Force's T-37 fleet in service at Sheppard AFB, Texas.

SHEPPARD AIR FORCE BASE. Texas — More than 50 years of dependable service is a lot to ask, especially from a tool used to train thousands of people in a critical and sometimes dangerous business.

But as the Air Force said farewell to the T-37 Tweet July 31, it did so knowing it got all it asked for and more from the venerable training aircraft.

Among those who came to Sheppard to usher off the end of an era and welcome in a new technological advancement in undergraduate pilot training was Gen. Donald J. Hoffman, commander of Air Force Materiel Command. His story, like many of those who came before and after him, includes the Tweet, a durable, safe and rugged training platform that provided the foundation of more than 78,000 Air Force, NATO and other international pilots since it became operational in 1957.

The general, who "owns" the final destination of the Tweet — the "boneyard" at Davis-Monthan Air Force Base, Ariz., and home to the Aerospace Maintenance and Regeneration Group, or AMARG said his last flight in the aircraft is one that holds a special place in his heart. Not only because of its heritage, but because it was the beginning of his 35-year Air Force career.

His first active assignment was as an 80th Flying Training Wing instructor pilot at Sheppard.

"Because I flew the Sheppard jets during my first assignment, and now have the bonevard at Tucson as part of Air Force Materiel Command, I have a close sense of identity with the final retirement of this wonderful aircraft," Hoffman said. "Nothing compares to the

BY THE NUMBERS T-37 FLIGHT MISHAP HISTORY

13,518,203

Total hours flown since 1956

136

Lifetime number of destroyed aircraft (1.01 per 100,000 flying hours)

Number of pilot fatalities in the T-37's lifespan (.2 per 100,000 flying hours)

Number of destroyed aircraft in the past 15 years

Number of pilots lost in the Tweet in the past 15 years

feeling of stepping out of the aircraft and launching your students on their first solo ... you can almost see the grin coming out from the edges of their oxygen mask."

The general is part of the group that took four aircraft to AMARG. Another group took a couple more Tweets to the Utah Test and Training Range located at Hill AFB, Utah.

But why has the T-37B, which has been replaced by the T-6A Texan II, been such a dependable beginning platform for so many pilots?

"For most students, the T-37 is the first jet, the first ejection seat, the first helmet and oxygen mask, and the first formal Air Force flying syllabus they have been exposed to," Hoffman said. "This can be an intimidating experience, but they get the ground training, simulator training and personalized attention of the instructor to get them through it."

Col. Kevin Schneider, commander of the 80th FTW, said when most people think of the Air Force and the air forces of our NATO partners, they think of fighters and bombers going off to war to preserve freedom and democracy across the world. Those flying the warbirds didn't just get in them and begin to fly. They had to learn how first.

"Combat skill and success doesn't happen overnight and it certainly doesn't start without disciplined training," the colonel said. "The T-37 Tweet has been that starting point for pilots for more than 50 years."

- John Ingle 82nd Training Wing Public Affairs

INVESTIGATION REVEALS CAUSE OF F-22 CRASH, PILOT DEATH

WRIGHT-PATTERSON AIR FORCE BASE, Ohio (AFNS) — Air Force Materiel Command officials here released an accident investigation report July 31 that determined that human factors associated with high gravitational forces caused the March 25 crash of an F-22 test aircraft 35 miles outside of Edwards Air Force Base, Calif.

The test pilot, David Cooley, a Lockheed Martin employee, was killed in the mishap.

Cooley was a former Air Force pilot with significant flight experience, including in the F-22. The aircraft, assigned to the Air Force Flight Test Center at Edwards AFB, was destroyed. Total cost of the aircraft, equipment damage and property restoration has been estimated at \$155 million.

According to the report, the pilot was conducting high-G maneuvers, which test aircraft capabilities and integrated equipment, prior to the accident. Witness statements, voice and telemetry data and simulations show he completed two of three planned tests. During his third test maneuver, however, he appeared to have been subjected to increased physiological stressors associated with high-G maneuvers, according to the report.

The board concluded this led to an "almost" loss of consciousness and lack of situational awareness, causing the pilot to delay his aircraft recovery maneuver.

The report states, "The [mission test pilot] regained partial [situational awareness] and attempted a late recovery from the test maneuver but determined there was inadequate altitude for a safe recovery and ejected."

Because of the speed of the aircraft and the windblast, the pilot immediately sustained fatal, blunt force trauma injuries upon ejec-

The accident board concluded that the aircraft itself was functioning normally and that there were no design or airworthiness issues that would impact the safe operation of the F-22 fleet.

"The loss of Mr. Cooley is tragic and keenly felt by everyone who



During an F-22 test maneuver, the test pilot was subjected to increased physiological stressors associated with high-G maneuvers. This led to an "almost" loss of consciousness and lack of situational awareness, which ultimately resulted in the pilot's death and the aircraft being destroyed.

knew him," said Maj. Gen. David W. Eidsaune, the accident investigation board president. "He was a superior test pilot and a member of the Air Force family. His service as a test pilot helped enhance the capabilities of fighter aircraft. Our thoughts and prayers continue to include the Cooley family."

HUMAN ERROR LEADS TO MQ-1B PREDATOR CRASH

LANGLEY AIR FORCE BASE, Va. (ACCNS) — A pilotcommanded aggressive turn caused an MQ-1B Predator at Kandahar Air Base, Afghanistan, to spin out of control and crash Nov. 2, according to an Air Combat Command **Accident Investigation Board** report released in April.

The \$4 million Predator, assigned to the 62nd Reconnaissance Squadron, 451st Air Expeditionary Group, was destroyed on impact. There were no injuries or damage to other property or equipment. While the Predator is

an unmanned aerial vehicle, it is still controlled remotely by a pilot.

According to the report, the pilot commanded the aggressive turn to avoid entering a no-fly zone, which then caused the aircraft to spin out of control and crash. Additionally, a heavy left wing from carrying a hellfire missile, a significant crosswind, the autopilot not limiting the turn to 40 degrees of bank, and the ease of over-controlling Predator aircraft all substantially contributed to the mishap, the report said.



Spinning out of control after an aggressive turn to avoid entering a no-fly zone, an MQ-1B unmanned aircraft crashed Nov. 2. An accident investigation board, which released its findings in April, attributed the mishap to human error.