

Air Education and Training Command's **TORCH**

Winter 2012



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glider aircraft fleet
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Study shows military members returning from deployment getting in more mishaps

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2013 TORCH CALENDAR



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8 Crystal Clear

In a race to see her ailing mother who she feared was dying from cancer, Staff Sgt. Crystal Salierno felt her choice was clear. She decided to battle Mother Nature during a blizzard ... and lost.



BY TECH SGT. SAMUEL BENDIET



BY TECH SGT. SAMUEL BENDIET

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Cover illustration by Sammie W. King
Back cover composite by Sammie W. King

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Gen. Edward A. Rice Jr.
Commander

Col. Tal W. Metzgar
Director of Safety

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

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

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

Tech. Sgt. Samuel A. Bendet
Photojournalist/Designer
samuel.bendet@us.af.mil

Subscriptions and Contributions:

To request unit subscriptions or address changes, or to submit articles, photographs or artwork, e-mail information to torch.magazine@us.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, call toll free 1-866-512-1800 or write to New Orders, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954.

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FROM THE DIRECTOR

By Col. **TAL W. METZGAR**
AETC director of safety



USE THE BACKBOARD

As the winter months unfold and temperatures continue to plummet, I have a conditioned response to get excited about winter sports. The change of season brought tailgate parties and midnight madness basketball scrimmages at college campuses across the country. And now, as the winter chill ensues, sports fans are engaged in frequently emotional discussions of college football bowl matchups and the “fairness” of the Bowl Championship Series or “BCS” rankings, and soon, the “March Madness” of my favorite sport ... basketball.

As a basketball player, when leaves started falling from trees I knew it was time to polish my skills for the beginning of the season ... my team was counting on me. This included physical conditioning, mental preparation and time in the gym under the scrutiny of my coach to reinforce the fundamentals of the game.

Those familiar with basketball would probably agree that a layup is one of the simplest shots. Yet, in the heat of the game when adrenalin is flowing and the expectations of fans and teammates begin to weigh on a player, that break-away opportunity to score an “easy” basket suddenly becomes exponentially more difficult. Running down court in a full sprint, out-pacing the competition, a player has one thing in mind ... getting to the basket and scoring! However, the velocity of the sprinting player must somehow be brought under control to convert the horizontal momentum into a gentle, gliding layup. The unconscious calculations in the final steps will bring success or failure. Muscle memory will take over. The fruits of the pre-season drills and countless hours of coaching and rehearsing the fundamentals soon will be realized ... if the player has the discipline to apply them.

From pee-wee leagues to the pros, coaches teach the use of the backboard as the fundamental

method to increase the shooting percentage of this seemingly “easy” shot. Laying the ball up gently off the backboard slows the velocity enough and naturally converts the player’s forward momentum to an upward vector to gently bounce the ball off the backboard and into the hoop. Sticking to the fundamentals of the game brings individual and team success. Oh, the countless times I heard my coach encouraging me to “use the backboard!”

Safety practices and applied risk management, like using a backboard in basketball, are fundamental in our business. The inertia of “doing the mission” can result in blown opportunities if we fail to grasp the fundamentals. Our actions in those critical moments will determine the difference between mission success or mission failure.

With snow falling across the country and freezing rain and drizzle in the south, we’re faced with a new set of safety challenges both on-and-off duty. Each season brings a unique set of challenges to man and machine. Have you taken the necessary actions to achieve individual and team success? Stick to the fundamentals, and “use the backboard!”

“Safety practices and applied risk management, like using a backboard in basketball, are fundamental in our business.”

AN INSPIRATION!

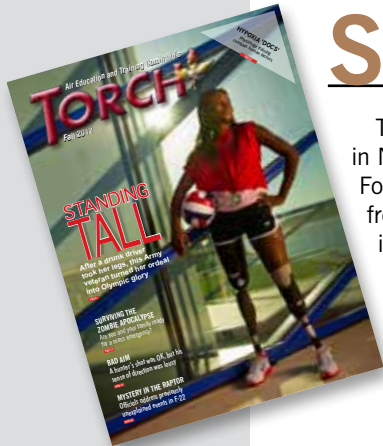


What an inspiration Kari Miller is (Fall 2012 Torch, cover story). After that drunk driver cost her both legs, she could have just quit. But instead she overcame and thrived. Message to those striving to meet goals: Never quit. Message to those driving drunk: Do quit.

*Evelyn Howe
Via e-mail*

Kari Miller was here on Randolph (Air Force Base, Texas), and I didn't get a chance to meet her ... (sad face). Everyone on this news feed should see this young woman. A drunk driver took her legs; see what she is doing now!

*Precious M. Wallace
Via Torch on Facebook*



STARVING FOR HARD COPIES

Torch made distribution this afternoon here in New Kabul City, and we are excited! Our Air Force guys and gals (we have about 80 ranging from colonel to staff sergeant) have been starving for a hard copy anything Air Force. We

appreciate everything you are doing for us. ... Information from back home is a key to success, and your magazine allows our personnel to read about Air Force safety issues.

*Glenn M. Harman
Kabul, Afghanistan*

NOT LOST IN TRANSLATION

I'm the director of the Academic Division, Royal Thai Air Force Safety Center. One of my jobs is developing and issuing a safety magazine. I have translated to Thai many of the articles you published in Torch and

used them in our magazine. The articles are very useful for our personnel. Thank you.

*Col. Nopphol Klinphaka
Donmuang, Bangkok, Thailand*

LETTERS TO TORCH

Have a comment or complaint? Letters to Torch may be sent via e-mail to:

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YOU CAN LEARN A LOT FROM ZOMBIES



Thanks for the article on "Surviving the Zombie Apocalypse" (Fall 2012 Torch, page 14). I loved it! I keep telling my friends and family that by watching "The Walking Dead" and other Zombie shows you can actually learn some good information and techniques for surviving in different situations that may happen.

*Traci Bell
Via Torch on Facebook*



ILLUSTRATION BY IBRAHIM ROBERSON

'GUN AND RUN' NO FUN

"Car Surfing Makes Airman Howl!" ("Tales of the Strange," Summer 2012 issue, page 6) is a perfect example of how momentary lapses in judgment can come back to bite you. Who hasn't played the "gun and run" game at some point in their lives? But these two

Airmen took it to a whole new level and paid the price. Hopefully, reading that story will give others pause in their decision-making.

*Tim Callaghan
Via e-mail*

2013 TORCH CALENDAR

Well, we received the 2013 Torch Calendars. ...
Hmm... The puzzle design is unsuccessful. For the first time, these calendars are not going fast, or anywhere actually. More likely, there's cussing as they are tossed back. The format is disappointing at best.

I can just picture a meeting where someone agrees that this is to make folks "think" about safety at every glance ... and cause you to "reconsider" your life as you safely build a plan for a "safe" day ... to put "the cute pieces together" ... etc., .etc., etc.

Honestly, we don't want an alternative, artsy, hip-hop fractured design with strong Department of Defense messages. We just wanted to admire big picture Air Force ... flying. Simple, clean, clear, quality aerial photographs of our fleet are best.

Oh well. Better luck next year.

*Lt. Col. Roland S. Dansereau
Ellington Field Joint Reserve Base, Houston, Texas*

Thank you for the recent shipment of 2013 Torch Calendars. They are again a highly professional and high quality product.

*Jeff "Miztah" Rogers
Air Force Academy, Colo.*

We needed to order more calendars because so many people loved it and asked for it ... I didn't have enough.

*Bulent Patur
Izmir Air Station, Turkey*

Your calendars are the best around, but they are hard to get ahold of here at the Arizona Air National Guard 161st Fire Department.

*Staff Sgt. Brett Sanchez
Mesa, Ariz.*

Best calendar around for 2013! I appreciate you sending these each year, as I so look forward to getting them.

*Gina P. Bradley
Harvest, Ala.*

Your calendar continues to be a huge success. Thank you from many very grateful employees.

*Billy Doolittle
Wichita, Kan.*

Your calendars are a big hit! Also we love the articles and photography in Torch. Keep up the awesome work!

*Rene' Stevens
Patrick Air Force Base, Fla.*

My family and I are big fans of the Torch calendar. I also like to hand them out to a few young people to inspire them for higher education.

*Maj. Sean Gradney
Austin, Texas*

Torch is a very popular calendar at the office. With the Julian dates and the legal holidays, it makes them very useful in our daily work. The photos are also great to have hanging in the office and at home.

*Robert Rivera
Randolph Air Force Base, Texas*



AIRMAN SAVES LITTLE BROTHER'S LIFE

'HE DIDN'T HAVE A HEARTBEAT; HE WASN'T BREATHING'

JOINT BASE SAN ANTONIO-LACKLAND, Texas (AETCNS) — If the Air Force needs to validate the importance of teaching Self Aid Buddy Care in basic military training, a former trainee's little brother is living proof of its effectiveness.

Airman Basic Shelby Goff used CPR, a technique taught during basic, to revive her 6-year-old brother, Amadeaus Foster of Grand Junction, Colo., Aug. 4. The boy nearly drowned in a downtown San Antonio motel swimming pool the day after his older sister graduated from basic training at Joint Base San Antonio-Lackland.

"In my experience, this is the first time we've had somebody employ that skill so swiftly, so expertly," said Maj. Michael Cohen, 343rd Training Squadron deputy commander. "It's quite impressive."

"In most cases, 999 times out of a thousand, you're not going to have to put that training into action," said Chief Master Sgt. Eric Stewart, 343rd TRS chief enlisted manager. "But the one time that you do have to, it pays for itself."

Now assigned to the 343rd TRS, Goff continues to train on base at the security forces technical training school.

"When I was taking the CPR class, I thought I'd never have to use it," Goff said.

"When you actually do, it just hits. ... You don't have to think twice about it."

The family will have a merry Christmas because the 18-year-old Airman gave the class her full attention.

Goff was relaxing with her brother and sister at a motel swimming pool the day after graduation when the near tragedy occurred.

Her younger sister, 15-year-old Anastasia Foster, was watching Amadeaus. When she briefly looked away, then looked back, Amadeaus was nowhere to be seen. Anastasia jumped in and soon

spotted her brother's limp form at the bottom of the pool. Amadeaus had slipped off an inner tube in the shallow end of the pool, hit his head on concrete and was knocked unconscious.

Anastasia got him out of the water and screamed for help. Goff sprang into action.

"He didn't have a heartbeat; he wasn't breathing," the Airman said solemnly.

Goff tilted her brother's head back and breathed air into his lungs. She then leaned his head to the side and pushed on his chest, repeating the cycle three times before Amadeaus responded.

"Because I'd been stressed during basic training, and because of the (Buddy Care) class, it was really easy for me to stay calm and deal with the situation," Goff said. "I knew at that point if I didn't do the right thing, he wouldn't make it."

Paramedics quickly arrived on scene and transported Amadeaus to a local hospital, where he stayed three days before going home to Grand Junction.

Jack and Brandy Foster witnessed the incredible sight of their daughter methodically saving their son's life.

"When I came around the corner and picked him up, I was a nervous wreck and (Shelby) was still calm and collected," Jack said. "Just amazing."

Goff's Air Force family rallied around her in the wake of the incident and during the media frenzy that followed. Her first sergeant, chaplain and commander all showed up at the hospital to support her and the family.

Goff said she was proud to be an Airman because, "I have a big family at home, but I have an even bigger family. No matter where I am, I have a wingman and somebody beside me."

Chuckling at the thought she was a hero and would get an award, as some local media implied, Goff said, "The fact is I do have an award, and that is my little brother's life. He's my best friend in the world."

— Mike Joseph
JBSA-Lackland Public Affairs



Airman Basic Shelby Goff sits with her 6-year-old brother, Amadeaus Foster, at their home in Grand Junction, Colo. She used CPR to save him after a near drowning at a motel swimming pool in San Antonio.

NOTE: Story compiled from articles by Sig Christenson, San Antonio Express-News, and Duffy Hayes, The Daily Sentinel, Grand Junction, Colo. Courtesy photo by Dean Humphrey, The Daily Sentinel.



Winter sports, such as skiing, can be fun, but people need to understand the threats the weather conditions impose.

SEVEN **COLD**, HARD FACTS FOR WINTER SPORTS, RECREATION

According to officials at the Armed Forces Health Surveillance Center, being able to recognize these seven dangers is key to avoid cold-weather exposure injuries.

1 FROSTBITE is the freezing of skin tissue that can extend through all layers of the skin and freeze muscle and bone. Frozen skin may turn red and then gray-blue with blisters. In the worst cases, the skin dies and turns blue-black, often requiring amputation. Deep frozen skin feels “wooden” to the touch, with zero mobility of the affected body part. Instantaneous frostbite can occur when skin comes into contact with super-cooled liquids including petroleum, oils and lubricants, antifreeze and alcohol, all of which remain liquid at temperatures as low as minus 40 degrees Fahrenheit.

2 FROSTNIP is the freezing of the top layers of the skin and is considered the first degree of frostbite. Frostnip usually results from short-duration exposure to cold air or contact with a cold object, such as metal. Exposed skin such as the cheeks, ears, fingers, hands and wrists are more likely to develop frostnip.

3 CHILBLAINS is a nonfreezing cold injury that results from repeated, prolonged skin exposure to cold and wet temperatures above freezing. Exposed skin becomes red, tender and hot to the touch and is usually itchy. These symptoms can worsen to an aching, “pins-and-needles” sensation, then numbness. Chilblains can develop in exposed skin in only a few hours. The most commonly affected areas are the ears, nose, fingers and toes.

4 IMMERSION foot/trench foot is a nonfreezing injury that results from prolonged exposure to wet conditions between 32 and 60 degrees Fahrenheit, or inactivity with damp socks and boots. Immersing feet in cold water, infrequent socks changing, poor hygiene and allowing sweat to accumulate in boots or gloves will soften the skin, causing tissue loss and often infection.

5 HYPOTHERMIA is a potentially life-threatening condition that involves cooling of the body’s core temperature below 95 degrees Fahrenheit. Hypothermia occurs when body heat loss exceeds heat production because of prolonged cold exposure.

Although hypothermia usually is associated with cold climates, it can occur at temperatures well above freezing, especially when a person is exposed to wet conditions for an extended period of time.

6 DEHYDRATION, most commonly associated with hot weather, is a lack of water in the body. Less understood is that it’s also easy to become dehydrated in cold weather, when many people fail to drink enough liquids and underestimate fluid loss from sweating. Proper hydration is especially important in cold weather because dehydration adversely affects the body’s resistance to the cold, increasing the chance of injury.

7 SUNBURN is another condition most commonly associated with hot weather, but is also a serious winter risk. Wear sunscreen. The sun reflecting off the snow can cause wickedly painful sunburn that could land you in the hospital. Additionally, wear sunglasses. Sun reflecting off of snow can sunburn the whites of one’s eyes. It’s painful and unattractive, in addition to being bad for eye health. Be sure to wear sunglasses, even on partly cloudy days, if you’re spending time around snow.

END GAME

SLEDDING INJURY A PAIN IN THE REAR

Sledding is fun, but sometimes it can be a real pain in the butt. That's what a Montana family discovered when their 7-year-old son hit a small pine tree and had a branch penetrate 6 inches into his body through his left buttock.

A.J. Wagner, of Billings, Mont., hit the tree while sledding out of control. His mother, Victoria Wagner, says the branch reached his abdomen, and A.J. suffered bruises to his intestines and stomach, according to *The Montana Standard*.

The boy needed surgery to remove the branch, but was fortunate that no vital organs were punctured.

While getting impaled by a tree branch in the derriere is no ordinary sledding injury, sledding mishaps are common this time of year.

According to the U.S. Consumer Product Safety Commission, there were 160,000 sledding, tubing and tobogganing-related injuries treated at hospital emergency rooms, doctors' offices and clinics nationwide in 2007 (the most recent statistics available). That's a startling rise from the 74,000 in 2004. Sledding injuries often include facial lacerations or skull fractures; tobogganing injuries almost always involve the lower half of the body, the commission reported.

A 1-inch thick tree branch impaled a 7-year-old Montana boy through his left buttock during a sledding mishap. The boy had lost control of his sled on a downhill run, and the pine tree branch penetrated 6 inches into his body.



BY TECH. SGT. SAMUEL BENDET

While children under 14 are most at-risk for these injuries, adults also take a beating.

"Two of the main factors that contribute to sledding-related injuries are the environment and the locale," said Lara Mc-

Kenzie, PhD, of the Ohio State University College of Medicine, in a news release.

McKenzie, who is affiliated with the Center for Injury Research and Policy at Nationwide Children's Hospital, says

sledding areas should be clear of trees and other obstacles.

A.J. would agree ... although, his mother said he was in no hurry to get back to sledding Montana hillsides.

— From wire reports

SLEEPING WITH PETS CAN KILL YOU

BY TOM SPERDUTO

Medical researchers have long shown that contact with pets can often help both the physically and mentally ill. But now, veterinary scientists say sleeping with your pets increases the chances of contracting everything from parasites to the plague.

What's a pet owner to do?

Most U.S. households have pets, and more than half of those cats and dogs are allowed to sleep in their owner's beds, Drs. Bruno Chomel, a professor at the University of California, Davis, School of Veterinary Medicine, and Ben Sun, chief veterinarian for California's Department of Health, say in a study published in the Centers for Disease Control and Prevention's (CDC) Emerging Infectious Diseases.

"We wanted to raise the attention of people, as sleeping with a pet is becoming quite common, and there are risks associated with it, even if it is not very frequent," Chomel said. "But when it occurs, especially in children or immunocompromised people, it can be very severe."

The authors, both experts in zoonoses, which are diseases or infections transmitted from animals to humans, reported that "the risk for transmission of zoonotic agents by close contact between pets and their owners through bed sharing, kissing or licking is real and has even been documented for life-threatening infections such as plague, internal parasites" and other serious diseases.

How many of us admit to others that we sleep with our furry friends? Many of us do, according to the study. Among dog owners, 56 percent admit they sleep with their dog next to them, the researchers reported. As strange as it may be to canine lovers, more people have cats than dogs, and these felines also carry disease. This study and several others show that disease from cats is far more prevalent, and often more serious.

The number of cats snuggling up with their owner is far greater, which may explain the larger number of people acquiring feline-spawned diseases, Chomel explained.

Take cat scratch disease, for example. The bacterial infection, caused by *Bartonella henselae*, comes from infected fleas and flea feces and is transmitted to humans, often simply by a cat strolling across a food preparation area that isn't disinfected before food is placed on it. Mostly, the victims of cat scratch disease are children, infected by the scratch, lick or bite of a cat. The pathogen can cause swelling of lymph nodes and sometimes lethal damage to the liver, kidney and spleen of humans.

The CDC estimates that more than 20,000 people can



From parasites to the plague, sleeping with pets can be dangerous.

contract cat scratch disease a year, but the federal disease agency could offer no information on the number of deaths.

In one example, though, a 9-year-old boy from Arizona got the plague because he slept with his flea-infested cat.

Kissing pets can also transmit zoonoses. A Japanese woman contracted meningitis after kissing her pet's face.

Other diseases can easily be transmitted by your pet kissing or licking you.


The study cited cases where a woman died of septic shock and renal failure after her cat, with which she slept, licked open sores on her feet and toes. In another case, a 44-year-old man died of infection after his German shepherd puppy licked open abrasions on his hands.


The risk of getting sick from being close with your pets is real, but most of the diseases they pass on to humans can be identified and eliminated by regular veterinary care.


Meanwhile, start practicing saying, "Get off the bed." ... And mean it this time.


— Andrew Schneider
AOL News

WHAT CAN BE DONE?

 People, especially young children or those who are immunocompromised, should be discouraged from sharing their bed with their pets or regularly kissing their pets.

 Any area licked by a pet, especially an open wound, should be immediately washed with soap and water.

 Pets should be kept free of parasites, especially fleas; routinely de-wormed; and regularly examined by a veterinarian.

 Preventive measures such as administering anthelmintic drugs for flatworms — and drugs for flukes, tapeworms and other parasites — to puppies or kittens within the first few weeks after birth or, even better, to their mothers during the last few weeks of pregnancy. This could help prevent most cases of human toxocariasis, which can cause severe and sometimes permanent vision problems for young children.



Staff Sgt. Crystal Salierno is still haunted by the thought that she came so close to losing her life when she chose to ignore weather forecasts in an effort to get home for the holidays. She still suffers headaches and tenderness from the head injury she sustained in a car crash.

CRYSTAL CLEAR

By Staff Sgt. **CRYSTAL SALIERNO**, as told to **TIM BARELA**
Photos and illustration by Tech. Sgt. **SAMUEL BENDET**

In race to see ailing mom, Airman takes on Mother Nature ... and loses

It was only a couple of days before Christmas, and I was anxious to get home for the holidays. Christmas is my favorite time of year, especially since I was going to get to spend it with my best friend — my mom. But a black cloud hung over us

this year. My mom had been diagnosed with leukemia, and the treatments were making her deathly ill. A year earlier her sister had passed away from brain cancer, so we were scared. Nobody said it out loud, but deep down inside we felt it might be our last Christmas together.



COURTESY PHOTO

She smashed her head through the driver's side window when she totaled the Dodge Neon she was driving during an ice storm. But Salierno survived to spend Christmas with her mom, Malinda Johnson, who is in remission from leukemia.

So nothing was going to keep me from getting home ... or so I thought. I guess you could say I had a pretty bad case of "get-there-itis."

With that mindset, I ignored weather reports. Forecasters warned people to stay off the roads, as a big storm approached. But Mom lived in my hometown of Kansas City, less than a five-hour drive from McConnell Air Force Base, Kan., where I was stationed at the time. So to see my mom, I decided to take on Mother Nature.

Bad idea.

I rationalized that I could probably beat the worst of the weather as I would start early in the morning. But this ended up being one of the nastiest ice storms Kansas has seen in recent history.

I started questioning my decision early on because my windshield wiper blades kept freezing. Several times I had to pull over to knock the ice off so I could see to drive. It was slow going. After four-and-a-half-hours of driving, I was only at Emporia — half-way there.

I-35, the route I took, had been reduced to one lane of traffic. Everyone was using the fast lane because the other side of the road had been completely snowed over. You couldn't see the asphalt in that lane at all.

Even though I was a nervous wreck traveling in such bad

weather, my spirits stayed high with the thoughts of seeing my mom and my brother. I didn't have much experience driving in the snow. Normally, in weather like this, I never had to drive more than 10 minutes to get to work. I talked to my brother, and he and my mother said I should pull over or turn back. But, of course, I ignored them. I was 20 years old and could be pretty stubborn.

My concern for my mom and wanting to be home for the holidays probably clouded my judgment. I mean, let's face it; I shouldn't even have gotten in the car that morning. So I let my emotions get the best of me. But I still felt that the main repercussion for my actions would be a frustrating drive that was going to take twice as long.

I crept along at 35 to 40 mph on a 75 mph highway when suddenly the guy in front of me hit his brakes. I followed suit, but must have slammed the brakes too hard. The back end of my vehicle swung out, and I instantly lost control. I slid into the snow-covered lane. Luckily, no one occupied that lane because I would have hit them. Unfortunately,

a big semi-truck had pulled off the road, and I slammed into it.

The impact seemed to happen in slow motion. My cell phone flew up, careened off the windshield and split in two. The airbag deployed, but my head jerked to the side and smashed through the driver's side window.

"The officer who responded to the scene later told me that if I had been going even a little bit faster, I would have ended up under the semi. ... I could have been decapitated."

Instantly, snow began to fill the car through the gaping hole left by the shattered window. It looked as though someone had egged the inside of my car as the grocery items I had picked up to do some Christmas baking with my mom had exploded in the back seat. Somehow, my hair gel, which had been in a zipped bag, broke free and added to the gooey mess.

Luckily no one had been traveling with me because the passenger's seat snapped in half. My seat belt kept me strapped securely in my vehicle and probably saved my life.

When the truck driver heard the impact on the back of his trailer, he ran to my window. My door was folded so I couldn't get out. The whole nose of the vehicle — from the bumper to the dashboard — jammed under the semi-trailer. The officer who responded to the scene later told me that if I had been going even a little bit faster, I would have ended up under the semi. ... I could have been decapitated.

Still in shock, snow formed like tiny icicles on my eyelashes as I sat there staring straight ahead. The truck driver was Hispanic and couldn't speak English very well. Wide-eyed, he just kept saying, "Bleeding! Bleeding!"

With the shock masking any pain, I was like, "No, I'm fine. I'm not bleeding."

But, of course, I was. The violent collision with the window had split my head open just above my left ear. I finally saw the blood dripping on my coat.

Another car pulled over and a couple undid my seat belt and pulled me out of the vehicle, careful not to move my head. When police officers arrived, they moved me inside the cop car because it was freezing and I was shivering uncontrollably.

I was taken to the emergency room in Emporia, where doctors put five staples in my head. At the hospital, I began to feel pain in my head and neck and felt totally exhausted.

When I called my mom and brother, I was a bit hysterical as the reality set in. The only other time I had felt this close to dying was when I was deployed to Iraq and an enemy mortar attack shook the wooden air traffic control tower I was manning, nearly knocking me off my feet. I was terrified then, and that same frightening feeling gripped me now. My mom got very emotional too. She almost made the same mistake as I did and was going to drive into the blizzard to get to me. But her supervisor convinced her to wait. I spent the night in the hospital.

When my mom saw me the next day, it was quite an emotional reunion. But once she knew for sure I was going to be OK, her inner "parent" kicked in and she scolded me some.

I can't say as I blame her. I'd nearly killed myself.

I learned my lessons, though. Before traveling, I now evaluate the situation better before ever stepping foot in the car. I should have waited for the storm to ebb and the salt trucks to work their magic. Also, I can't be so stubborn. When I realize I put myself in a bad situation, I need to call it off. After the first 30 minutes of my trip, I should have turned around and went back to the base. I had plenty of red flags — like the frozen wiper blades and snow-covered roads. And finally, I'll always carry a winter kit in my car. When I crashed I didn't have one. That could have made the situation worse, especially if I had been stranded alone.

But the main lesson here is I can't let my emotions rule my good sense. Here I was trying to ensure I would see my mother for maybe our last Christmas together. She still feels guilty that I risked my life to try to be with her. Can you imagine what it would have done to her if I had been killed that day? ❖

Salierno is an emergency action controller and training manager in the command post at Whiteman AFB, Mo. Her mother, Malinda Johnson, now lives with her. Johnson's leukemia is currently in remission.

WHEN JACK FROST HITS ...

❖ **Know the road conditions.** Before starting your trip, check weather forecasts and call the highway patrol for road conditions.

❖ **If you really don't have to go out, don't.** Even if you can drive well in the snow, not everyone else can. Don't tempt fate. If you don't have somewhere you have to be, watch the snow from indoors.

❖ **Leave early.** If you do have to be on the road, give yourself plenty of time. Bad weather, combined with holidays, means traffic jams. Expect them, and leave a little early.

❖ **Accelerate and decelerate slowly.** Applying the gas slowly is the best method for maintaining traction and avoiding skids. Also, gradually slow down for stoplights. Remember, it takes longer to slow down on icy roads.

❖ **Slow down.** Be defensive, smart and drive slowly. Everything — whether it's accelerating, stopping or turning — takes longer on snow-covered roads than on dry pavement.

❖ **Don't tailgate.** Triple the normal distance between you and the vehicle ahead of you. Increase your following distance to eight to 10 seconds to provide more room to stop.

❖ **Know your brakes.** Whether or not you have antilock brakes, the best way to stop is threshold braking. Keep the heel of your foot on the floor, and use the ball of your foot to apply firm, steady pressure on the brake pedal.

❖ **Don't stop if you can avoid it.** It's a lot harder to overcome the inertia of a stopped vehicle than one that is still slowly rolling. If you can slow down enough to keep rolling until a traffic light changes, do it.

❖ **Don't power up hills.** Applying extra gas on snow-covered roads just starts your wheels spinning. Try to get a little inertia going before you reach the hill, and let it carry you to the top. As you reach the crest of the hill, reduce your speed and proceed downhill as slowly as possible.

❖ **Don't stop while going uphill.** There are few things more difficult than trying to get moving uphill on an icy road.

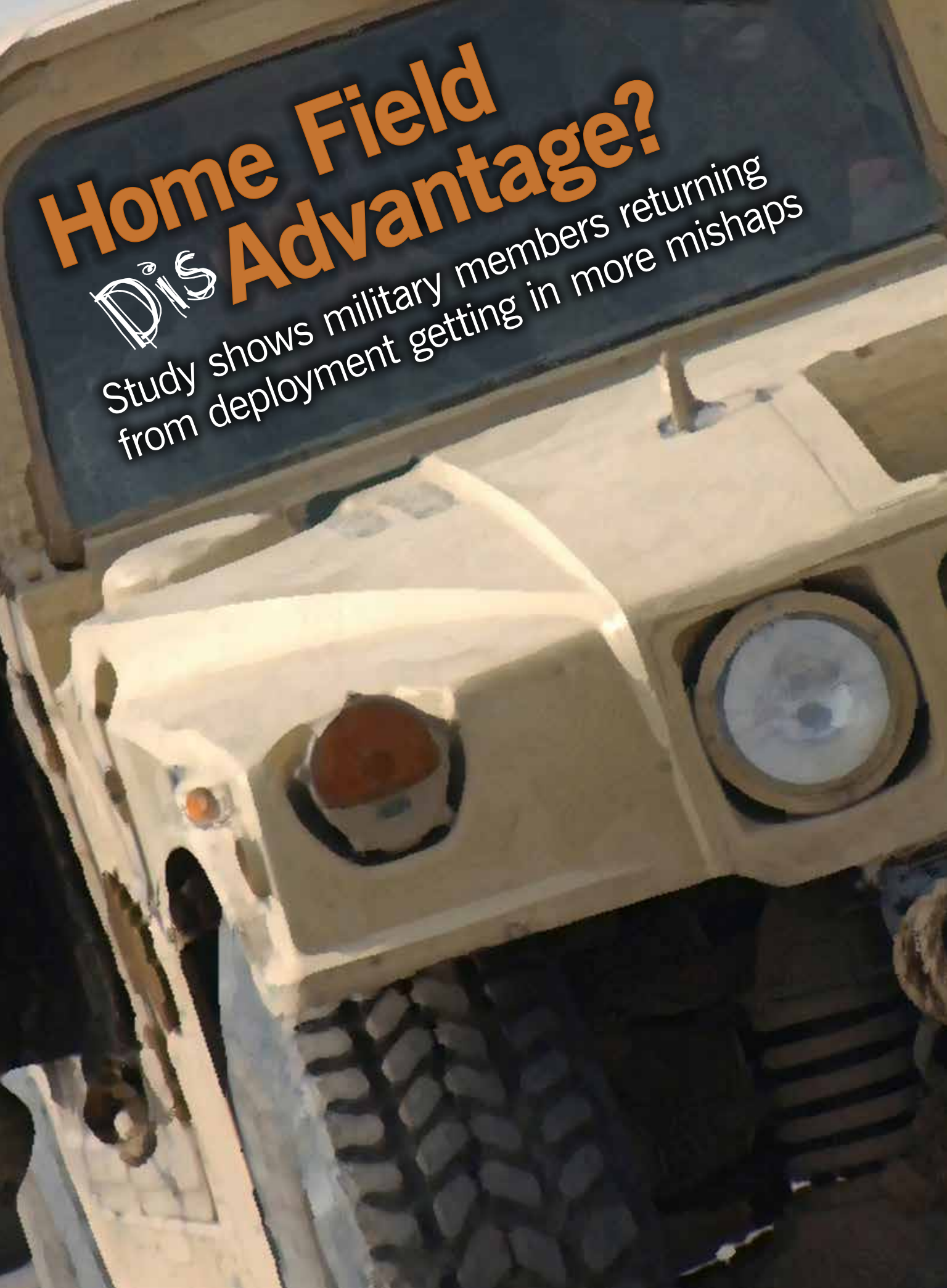
❖ **Steer into the skid if you start to slide.** This action can help you regain control of the vehicle.

❖ **Keep a safety kit in your car for emergencies.** You'll be glad you did if you end up in an accident or stranded in freezing temperatures.

— American Automobile Association
and the Air Force Safety Center

Home Field Dis Advantage?

Study shows military members returning from deployment getting in more mishaps





By **TIM BARELA**
Photo manipulation by **DAVID STACK**

Deployed military members show “an appreciable increase” in at-fault accidents upon return to their home stations, according to a study conducted by the United Services Automobile Association, better known as USAA.



BY TECH. SGT. SAMUEL BENDET

After getting stuck in a mud hole while patrolling through Kirkuk, Iraq, Army soldiers dismount from their Humvee. Driving behaviors learned in combat can impact military drivers when they return to the roadways near home, according to the Army's Surgeon General.

Released earlier this year, the study focused on private passenger vehicle driving experiences of USAA-member military personnel over a three-year period (from January 2007 through February 2010), which included 171,000 deployments by 158,000 members to various overseas locations.

The study revealed a 13 percent increase in at-fault accidents for troops within the first six months of returning from deployment. Further analysis highlights significant differences between military ranks, with lower ranking individuals at higher risk (see chart titled "Increase in At-Fault Accident Activity").

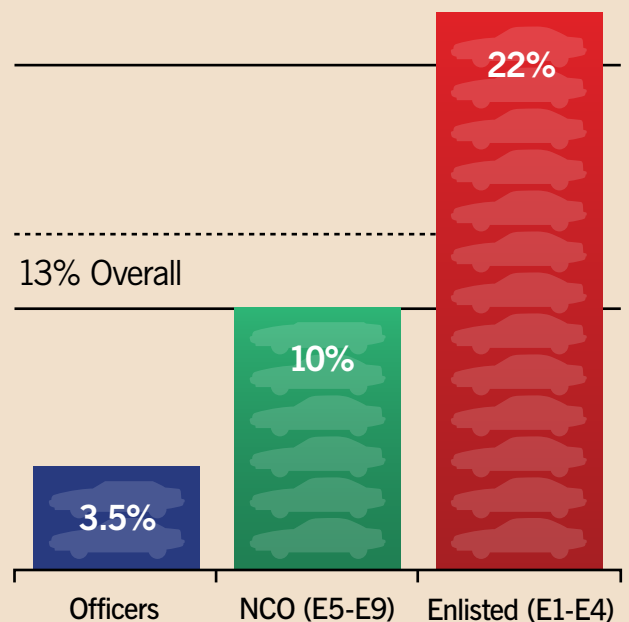
USAA's Returning Warriors study data does not include information about behaviors that contributed to the increase in at-fault accidents, because such information isn't captured in claims reporting. However, USAA has been working with military organizations and experts who have studied post-deployment behaviors.

"When military members survive a hostile environment, some come back home feeling bulletproof," said Dave Etrheim, occupational safety manager, Air Education and Training Command ground safety. "They feel safe here in the states and perhaps have a little bit of a letdown in their risk management. Others simply crave that adrenaline rush they got in combat, and that could lead them to riskier behaviors back home."

Etrheim said that a lot of deployed members also are able to save money while they are deployed, so when they come back home they buy new "toys," such as cars, boats or motorcycles. Playing with these new toys has a learning curve, which is further inhibited by rusty driving skills, Etrheim added.

"And, of course, some deployed members come back to their home station and want to catch up on the party scene," Etrheim said. "They feel they earned the right to let their hair down, which they have. But you can't totally throw caution to the wind."

INCREASE IN AT-FAULT ACCIDENT ACTIVITY 6 MONTHS POST-DEPLOYMENT



Deployment: January 2007 - February 2010

INFO COURTESY USAA

Professor Erica Stern of the University of Minnesota also has studied the driving experiences of returning soldiers as part of a regional study and has found “carryover” driving behaviors that were potentially lifesaving in deployment but risky on civilian roadways, such as reluctance to stop at intersections or driving at inappropriate speeds. Stern surveyed service members about their most recent 30 days of American driving after returning from deployment and found that, of those surveyed, 30 percent reported being told that they drove dangerously. Half said they became anxious when other cars approached quickly or when they got boxed in on the road, while 20 percent said they were anxious when driving in general. In comparison, none of the non-deployed service members reported that they were anxious when driving in general.

Here are some other results from the USAA study:

- ▶ Most accidents were caused by “losing control of the vehicle,” according to drivers.

- ▶ Accidents attributed by drivers to “objects in the road” increased more dramatically after deployment than any of the other 12 causes USAA tracked for the study.

- ▶ The increase in at-fault accidents was most dramatic for younger drivers, with drivers younger than 22 experiencing a 25 percent increase in at-fault accidents, while drivers older than 29 only saw a 7.5 percent increase.

- ▶ Drivers with three or more deployments experienced 36 percent more at-fault accidents, drivers with two deployments saw 27 percent more, and drivers with one deployment had an increase of 12 percent.

- ▶ Individuals with longer deployments were generally more likely to be involved in at-fault accidents.

To set a common baseline for comparison, driving behavior for each member in the study was evaluated for the six months prior to deployment. The number of at-fault accidents occurring in this period was compared to the member’s experience upon returning home from deployment. An accident was considered at-fault if the member’s fault was determined to be greater than 50 percent. The post-deployment experience was evaluated for up to 18 months to identify when and if driving behavior returned to pre-deployment levels.

USAA was able to identify members who were deploying because their clientele generally notifies them before being deployed because the insurance company offers members several options to either reduce their premiums or coverage if their vehicle is stored. Members who did not notify USAA of deployments are not represented in the data.



COMPOSITE BY DAVID M. STACK

At-fault vehicle accidents for military members within the first six months of returning from deployment increased 13 percent overall, according to the USAA study.

A deployment was considered for the study only if the member had auto coverage for at least six months leading up to deployment and for at least six months upon returning from deployment. The 37 months of deployments provided a steady volume of departures and returns to evaluate month over month and help mitigate any seasonality effects.

USAA has shared its research with each military branch’s safety center commanders and traffic safety experts. ✈

DRIVING BEHAVIORS LEARNED IN COMBAT AND CONTINUED AT HOME

IN COMBAT

Drives as far as possible from road edge to avoid improvised explosive devices.

Changes direction and lanes unexpectedly, especially at tunnels or underpasses where insurgents might be waiting.

Always moving. Does not stop for traffic or people. Always has right of way.

Speeds as fast as the lead vehicle in a convoy.

Hypervigilant of roadside elements.

AT HOME

- ▶ Drives in middle of road, straddling lanes.

- ▶ Weaves through traffic. Does not signal turns, merges or lane changes. Avoids or changes lanes at underpasses and tunnels.

- ▶ Anxious when stopped. Rolls through traffic lights and stop signs. Does not yield right of way to other vehicles.

- ▶ Drives over posted speed limit.

- ▶ Overly attentive to roadside elements.

Source: Office of the Surgeon General (Army)



Broken **A Wing and a Prayer**

Two survivors talk about how they miraculously walked away from near certain death when the wing of their T-38 Talon fell off during an acrobatic training maneuver

By **TIM BARELA**

Illustrations by **SAMMIE W. KING**



Capt. Mike Hainsey slumped inside the T-38 Talon cockpit, which shook so violently it was as if God were using the jet as a salt shaker. Losing the tug-of-war with gravity and plummeting toward earth at breakneck speed, the metal fireball that used to be his aircraft would quickly become his tomb if he did not wake up. Hainsey's student pilot, 2nd Lt. Plato Rhyne III had somehow managed to escape the deathtrap, but his troubles were far from over. He was in free fall, and his parachute had suffered a total malfunction during the brutal ejection from the spinning jet. The chute had become twisted in the risers and transformed into nothing more than a trash bag flapping uselessly above his head. After a couple of desperate attempts to untangle it failed, Rhyne looked at the rapidly approaching trees, and thought, "This is gonna hurt."

Hainsey and Rhyne have been linked together for the past 26-plus years because they did something that not many pilots do when the wing falls off of their aircraft in mid-flight: They lived.

These unlikely survivors reunited for a day — the first time they had seen each other since shortly after the mishap — to tell

their riveting story and share lessons learned to nearly 100 aviators at Columbus Air Force Base, Miss., the base they had been assigned to at the time of the crash on Jan. 17, 1986.

Ironically, Hainsey was only a month shy of a permanent change of station move to Randolph AFB, Texas. And to graduate from undergraduate pilot training, Rhyne only needed to fly the T-38 for 1.2 hours and make a successful landing. ... He wouldn't get either.

"We were flying in the operating area west of the base," Hainsey said. "Weather was good, and we were taking turns doing acrobatic maneuvers."

On one of Hainsey's turns, they accelerated to 500 knots as the instructor pilot set them up for a loop.

"I told Plato, 'Here come the Gs!'" Hainsey said.

They reached 5.5 Gs when the left wing snapped.

"We had no idea what had happened," Rhyne said.

"One second you're flying, the next it feels like the aircraft blew up and went out of control."

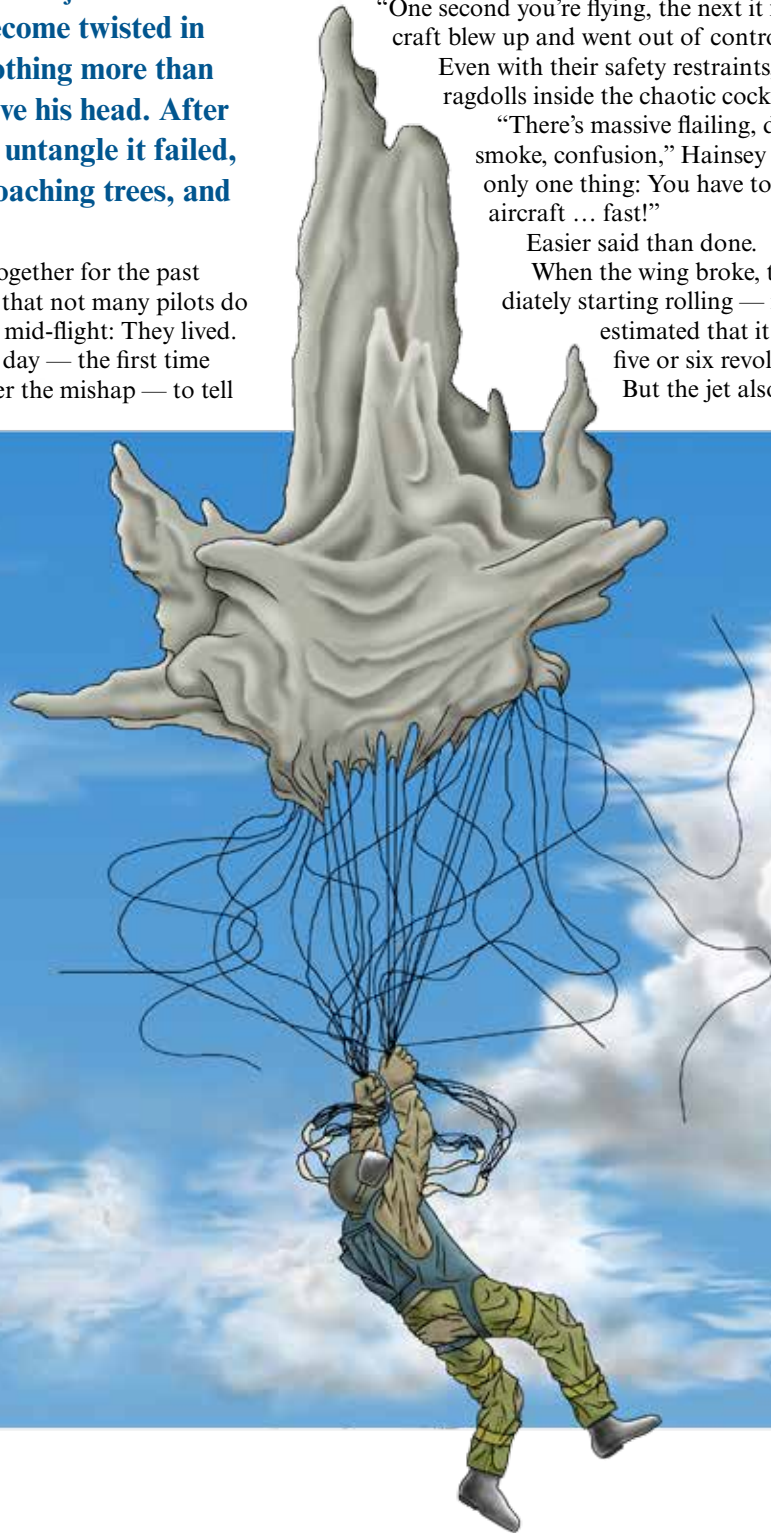
Even with their safety restraints, the pilots felt like ragdolls inside the chaotic cockpit.

"There's massive flailing, deafening noise, smoke, confusion," Hainsey said. "You know only one thing: You have to get out of the aircraft ... fast!"

Easier said than done.

When the wing broke, the aircraft immediately starting rolling — investigators later estimated that it was spinning at five or six revolutions per second.

But the jet also was tumbling.



That meant the pilots were experiencing up to 10 Gs one second and a negative 6 Gs the next. Positive Gs force the blood to your feet; negative ones push it to your head, like being hung upside down. The human body isn't designed to withstand such powerful opposing forces.

Additionally, the left wing didn't immediately separate from the aircraft when it snapped. Instead it folded and went through the backbone of the airplane, hitting a fuel bladder that was right behind Hainsey's seat in the back of the cockpit. That's what caused the explosion on the aircraft and the ensuing fireball.

Every Man for Himself

"We couldn't communicate with each other," Rhyne said. "The noise in the cockpit was far too loud. But it didn't matter. We were below 10,000 feet in an out-of-control aircraft, and that means every man for himself."

Barely able to control his arms, Rhyne desperately looked for the ejection handles but couldn't see a thing.

"I don't know how I figured it out in all the confusion, but my face had slammed so hard into the canopy that my helmet made a quarter turn on my head," he said. "My oxygen mask was on my right ear."

He fixed his mask and helmet, and located the right ejection handle. He grabbed and was going to pull it, but stopped himself.

"Once I had the ejection handle, it calmed me down for a second," Rhyne said. "I took the time to get in a better ejection position. I got both hands on the handles, got my elbows inside the elbow guards, sat up, put my head against the seat, pulled my legs out from under the dash, and got in the ejection position. Then I pulled both ejection handles as hard as I could."

Those last preparations probably saved him from some major flail injuries, as he shot out of the spinning tube at 19 Gs into granite-hard shock waves.

Trapped in the Cockpit

Meanwhile, Hainsey was still trapped in the cockpit slipping in and out of consciousness. Investigators would later find 20-plus gray marks where his helmet kept striking the canopy.

"The problem was we weren't just fighting one type of G," Hainsey said. If you're pulling negative Gs, you can focus on that. If you're pulling positive, you can focus on that. But the airplane was tumbling so bad, it was positive, negative, transverse. I was flailing around on the edge of consciousness most of the time. I was fighting to stay awake."

He was losing the fight.

But then a bit of a miracle. The faulty wing finally totally separated from the aircraft, and the jet settled into a decent that was more like a falling leaf.

"That cut out some of the randomness of the Gs and allowed me to focus on just one handgrip," Hainsey said. "My training kicked in, and I tucked my elbows into the guards. If your elbows are outside of the guards, you've got a good chance of smashing them, breaking them or even losing the entire arm."

By the time Hainsey ejected, the fire on the aircraft had turned from a fuel blaze to a searing alloy fire.

"When the canopy shot off during the ejection sequence, the fire came in and burned my parachute through the pack, burned my neck, burned my arm, burned my back and melted the flight suit in some places," he said. "I was only exposed to it for a split second, but that's how hot it was."

Hainsey felt the burns; but an instant later, he also felt the tug of his parachute. He was so relieved to get a good chute that he didn't think about his scorched skin.

But the good feelings were short lived.

"I looked up, saw the parachute, and that was a wonderful feeling," he said. "Then I looked out, and I was already below the treetops."

How could he possibly maneuver through the cluster of pines?

'Where's My Parachute?'

Though Rhyne had punched out earlier than his instructor pilot, he encountered his own troubles.

He had ejected at about 7,000 feet, and came out of the clouds in free fall.

"I was calm during the free fall because I used to skydive in college — I was in a familiar place," he said. "Plus, at first I was just happy to be alive."

Then it dawned on him that he was at 6,000 feet, falling to the ground like a sack of potatoes and still no chute.

"Where's my parachute?" he asked himself.

He flared out to slow his decent a bit.

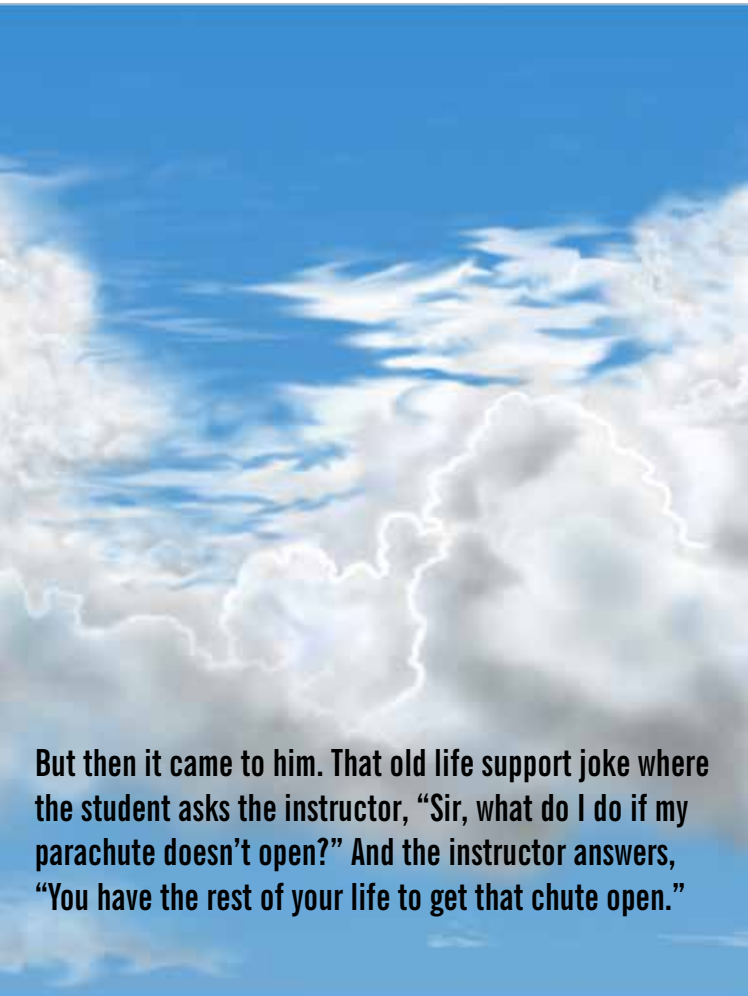
"That's when I realized I was in serious trouble," Rhyne said, "because my left hand was inside the pilot chute and the bridle line was wrapped around my arms. I was holding on to the top of my parachute!"

During the violent ejection, he'd gotten tangled up in the chute. He grabbed the deflated canopy with his left hand, shook the bridle line off and threw the pilot chute away from his body as hard as he could.

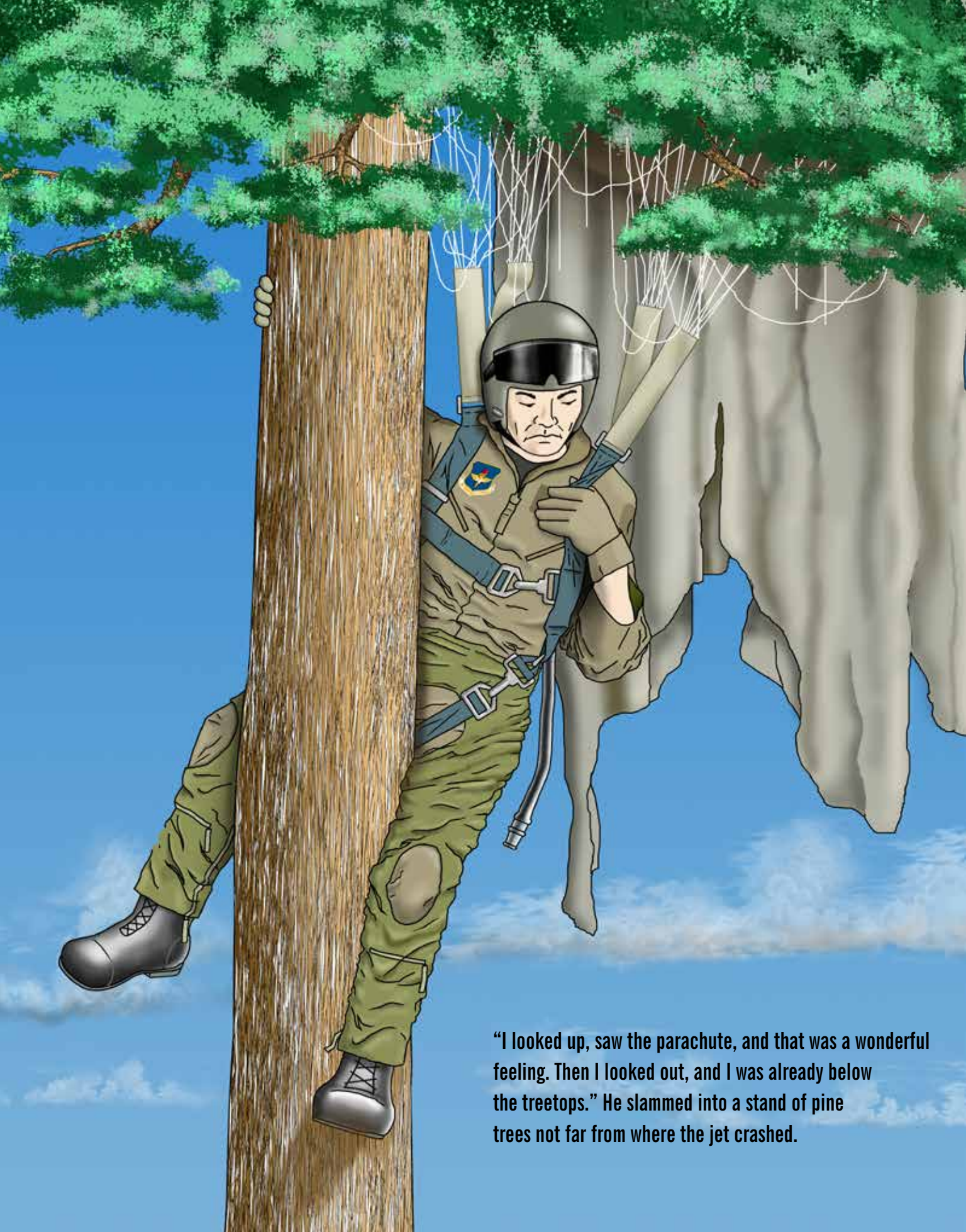
"I watched it go up — straight into the left risers," he said. The tangled mess didn't even slow him down.

"I knew I needed to fix the situation ... and fast," Rhyne said. "I grabbed the risers and started pulling the canopy in."

He pulled half of it down and let go. Nothing. He did it again. Still nothing.



But then it came to him. That old life support joke where the student asks the instructor, "Sir, what do I do if my parachute doesn't open?" And the instructor answers, "You have the rest of your life to get that chute open."



“I looked up, saw the parachute, and that was a wonderful feeling. Then I looked out, and I was already below the treetops.” He slammed into a stand of pine trees not far from where the jet crashed.

“Well, this is it. It’s over. I’m going to hit the ground,” Rhyne thought with all too much clarity.

But then it came to him. That old life support joke where the student asks the instructor, “Sir, what do I do if my parachute doesn’t open?” And the instructor answers, “You have the rest of your life to get that chute open.”

“It’s funny, but that’s what went through my mind,” Rhyne said. “So I looked at the ground and said, ‘OK, I’m going to fight this thing until I hit those trees.’”

This time, he tried to pull the chute all the way in.

“I got the canopy to just above my helmet,” he said. “But there are 14 suspension lines and two risers you can’t just put in your pocket at 100 miles an hour. So I’m getting beat up by all the lines that I’ve pulled in. And the riser buckles are hitting me in the face.”

With one last heave, he let go of the chute, pulled his elbows in and turned his head in to try to keep everything tight.

“I got opening shock,” he said with relief. “The lines were twisted from my helmet all the way to the canopy, but I had a good canopy.”

And none too soon ... he had free fallen for nearly 6,000 feet and was now at about 1,200 feet to impact.

“Now I’m doing the post ejection checklist, and nearly pass out,” he said. “The flight doc told me it was probably because I had barely taken a breath since bailing out.”

His breath probably caught again when his ejection seat almost hit him.

Into the Trees

Meanwhile, Hainsey, unable to avoid the stand of trees, slammed into a tall pine not far from where the jet crashed.

“I hit the tree face on — as in knocked out cold,” Hainsey said.

Like a lifeless puppet, he dangled from strings nearly 40 feet above the ground.

Rhyne, on the other hand, was wide awake and far from being out of the woods.

“I saw our airplane hit the ground and spotted Mike in the trees down below me,” he said.

The student pilot then heard the distinctive “whop, whop, whop” of a helicopter. The hair raised on the back of his neck as he knew they were smack dab in the middle of a low-level training route for National Guard helicopters.

“So here’s what I’m thinking: Airplane tries to kill me, parachute tries to kill me, seat tries to take me out, and now I’m going to get hit by a helicopter,” Rhyne said.

What he didn’t know was that the helicopter crew had been

in the area and was responding to the emergency beacon. They had spotted him, Hainsey and the wreckage. They were there to rescue the downed pilots.

Rhyne aimed his chute for a small clearing.

“My landing couldn’t have been any softer,” he said. “I landed on my feet and just kind of sat down.”

Unfortunately, he sat down in a bed of sandspurs.

A farmer and his daughter, who had witnessed the accident, drove a truck to pick up Rhyne, while the rescue helicopter went to get Hainsey.

Hainsey came to while still dangling in the tree.



BY TECH SGT SAMUEL BENDER

Back together after 26 years, retired Maj. Plato Rhyne, left, and retired Lt. Col. Mike Hainsey, met with students and instructor pilots at Columbus AFB, Miss., May 4 to discuss their T-38 crash and share the lessons learned.

How They Survived

- **Training.** Pay attention to your refresher training and pre-flight briefs; they can save your life.
- **Proper sleep and nutrition.** Both can positively or negatively affect your ability to handle G forces.
- **Make the ejection decision.** You need to punch out of an out-of-control aircraft that is under 10,000 feet.
- **Don’t panic.** Taking a moment to get in the proper ejection position saved both pilots from worse injuries.
- **Never give up.** As life support experts said, “If your parachute doesn’t deploy, you have the rest of your life to make it work.”

— Mike Hainsey and Plato Rhyne

Lucky to Be Alive

“My brain was in a fog ... I was dazed, confused and had no idea how I had gotten there,” he said. “I could hear the helicopter, and my first thought was I better get out of this tree so they can see me.”

So he reached up and popped open one of the releases on the chute.

“Well I’m still 40 feet up, and now I’m thinking this may not have been the best move,” he said. “But now I’m committed. I was close enough to the trunk of the tree that I held onto that and then popped the other release.”

He climbed down about 10 feet and then stepped on a thin branch about an inch thick.

“The branch broke, and I became a tree hugger,” he said.

He slid down the tree out of control for about 20 feet, and then fell the last 10.

The helicopter picked him up and then flew to get Rhyne.

Both pilots had blood red eyes as the whites of their eyes had hemorrhaged from the negative G forces. Rhyne’s injuries were fairly minor: a neck spasm, pelvic bruises, and contusions on his right lower leg and left knee, as well as more than a few puncture wounds from the sandspurs. Hainsey, however, suffered some major injuries, including a compression fracture of his lower back; second degree burns on the

right side of his neck, left back and upper left arm; and abrasions on his face and hands from the tree landing.

“We were lucky, but our training also helped,” Hainsey said.

Two weeks after the crash, Rhyne finally finished his last flight in the T-38 and graduated.

“I had needed 1.2 hours and a landing to graduate,” Rhyne said. “Unfortunately, on the flight with Mike, we only got .6 hours and no landings.”

“Well,” Hainsey said with a coy chuckle, “no landings in the aircraft anyway.” ✪

NEW SAILPLANE



When the TG-10C glider that has been the Air Force Academy's sailplane of choice for basic and aerobic training for the last decade ascended for its final flight in Colorado Springs, Colo., July 23, it ended one era and ushered in another ... one that includes a plane that should be even safer for the pilots.

The TG-10 trainer, which has been replaced by the new German TG-16A model, was flown for the last time on academy grounds by Cadet 2nd Class Kurt Luithly, who flew the plane as a check ride to upgrade as a cadet instructor pilot. His evaluator, Lt. Col. Jeff Riddlebarger, an Air Force reservist, said it was one of the best check rides he'd seen.

"Luithly was very successful due to excellent discipline standards and leadership," said Lt. Col. Richard Roller, commander of the 94th Flying Training Squadron. "That's what the soaring program is all about: discipline, enthusiasm and teamwork."

Twelve TG-10 planes were brought to the academy in May 2002, and used to give cadets firsthand experience flying an aircraft. The planes are no longer being manufactured, but can still be flown and were transferred to the U.S. Air Force Auxiliary, Civil Air Patrol.

"They were used for 140,000 flights," Roller said.

The TG-10 flew as high as 24,000 feet and had a record duration of 6.1 hours. It also had an excellent safety record with only

ACADEMY GLIDERS OFFER SOME SAFETY ADVANTAGES

By **AMBER BAILLIE**
Photo by **JAMES STAFFORD**



But even with an upgraded sailplane, there is still a learning curve that can't be ignored.

"Our formal transition syllabus is very rigorous," Frost said. "After completion, each cadet instructor pilot is briefed on the differences in aircraft responsiveness and the effects on adjusting individual limits."

Having to learn to train in a new platform hasn't dampened the spirit of the pilots, who are excited about the new aircraft.

"I'm really looking forward to training cadets again with the TG-16 as well as taking it on the road to air shows and hopefully football games," Roller said. "It's a great recruiting tool for the academy."

Roller said the TG-16 is aesthetically pleasing and white instead of yellow. It also features a lightning bolt symbol similar to those on the Falcons' athletic gear.

"It's a good-looking glider," Roller said. "These gliders are a brand new look for the academy, a new face to the soaring program and are made of fiber-glass instead of sheet metal. It's leading-edge soaring equipment."

In addition to the safety enhancements, the TG-16 is an overall upgrade because it's a newer product, can soar faster and has an extended service life, Roller said.

"The TG-10 had a 28 to 1 glide ratio, and the TG-16 has approximately a 42 to 1 ratio," he added.

The biggest challenge with the new model has been getting cadets qualified in time to fly the TG-16 and get through the program, Roller said.

"Due to the use of a new airplane, a new technical order had to be written and cadets will have to restudy and relearn how to fly the airplane," according to the commander. "A lot of work has taken place behind the scenes to transition to this new model. There is still a lot of work to be done to reach top airmanship, leadership and victory."

The TG-16s were first tested at Edwards Air Force Base, Calif., to ensure Air Force regulations were met before they were shipped to the academy.

Roller said new cadets began to use the new plane July 16. He said the core of the mission is for cadets to be leaders on the airfield and run the program on their own.

"We have the youngest instructor pilots in the country and train the most inexperienced," Roller said. "These young men and women are making life and death decisions flying solo in these planes. Our goal is to develop leaders of character, and I think these new airplanes will help achieve that. I'm looking forward to them excelling in this model."



The Air Force Academy's first TG-16A glider, left, replaces the TG-10C (inset above) after arriving at the Academy July 8. The new fleet of training and aerobatic gliders is valued at \$4.8 million and includes five new aerobatic gliders and 14 basic trainers.

one Class A and one Class C mishap in the past decade.

And the new sailplane — the TG-16 — should be even safer.

The academy received 15 TG-16s and will import four more. Five are smoke-capable and can perform aerial demonstrations. The remaining 14 are non-smoke capable and will be used for training purposes only. It also will include some features that enhance flight safety, according to Capt. Charles "Bowie" Frost, 306th Flying Training Group chief of flight safety.

"The G-Logger in the new plane provides post-flight recall of aircraft performance in relation to limitations," Frost said. "Also, TG-16 wing spars and connection to fuselage is much stronger providing better structural integrity over the life of the aircraft."

Ms. Baillie is with the Air Force Academy Public Affairs Office in Colorado Springs, Colo. Tim Barela contributed to this article. (AFNS)

REMOTELY PILOTED AIRCRAFT

SAFETY AT CENTER OF GROWING REQUIREMENT, SURGING NUMBERS



The MQ-1 Predator was the second most flown airframe last year, second only to the C-17. Despite a dramatic increase in the number of flying hours for remotely piloted aircraft, mishap rates are improving for these airframes.

BY TECH. SGT. EFRAN LÓPEZ

KIRTLAND AIR FORCE BASE, N.M. — Sixty-seven years ago Gen. Hap Arnold may have startled even his most visionary contemporaries when he said on V-J Day in 1945, “The next war may be fought by airplanes with no men in them at all. Take everything you’ve learned about aviation in war, throw it out of the window, and let’s go to work on tomorrow’s aviation.”

No one then could have imagined that Arnold’s prophecy would be realized just a couple of decades later when unmanned aircraft were used for tactical reconnaissance during the Vietnam War.

Today, remotely piloted aircraft provide combatant commanders the intelligence, surveillance and reconnaissance data that’s needed in real time to successfully target the enemy and provide strike support for troops on the ground. “Insatiable” is often used to best describe combatant commanders’ need for those capabilities. That need was shared by former Defense Secretary Robert Gates when he directed in 2010 that combat air patrols increase to 65 by the end of fiscal 2013 to support an enduring requirement beyond the conflicts in Southwest Asia.

Hand-in-hand with the expanding requirements for the MQ-1 Predator, MQ-9 Reaper and RQ-4 Global Hawk, and the need for the production of more RPA pilots and sensor operators, is the increasing focus on operational safety of more than the current inventory of about 250 Global Hawks, Predators and Reapers — a number that’s expected to grow with the acquisition of nearly 400 Reapers over the next few years.

In spite of a dramatic increase in the number of RPA flying hours, the mishap rates are improving, said Lt. Col. Maggie Howard, RPA Safety Branch chief.

“The MQ-1 was the second most flown airframe last year;

second only to the C-17,” Howard said. “Between fiscal year 2007 and 2011, its flying hours increased from approximately 79,000 to 239,000 — a 200 percent increase.”

The MQ-1 had 78 Class A mishaps between 1994, when it was assigned to the Air Force, and October 2010, and 19 since. From 1994 to October 2010, Class A mishaps were defined as those resulting in damage equal to or greater than \$1 million or a destroyed aircraft. Beginning with fiscal 2010, the cost threshold for Class A went to \$2 million.

The mishap rate has decreased because of fine-tuned pilot training and the implementation of airframe design changes, said Greg Grigson, operations research analyst. Those efforts resulted in a mishap rate per 100,000 flight hours that approaches that of the F-16.

“The MQ-9 and RQ-4, on the other hand, are more advanced RPA designs which include redundant systems similar to manned aircraft and have cumulative mishap rates that are currently lower than the F-16,” Grigson said.

In fiscal 2011, the Air Force had 13 RPA Class A flight mishaps for a rate of 3.83 per 100,000 flight hours.

“As with other Air Force airframes, Air Force RPA safety rates are improving over time due to design and system re-engineering,” said Dr. Ken Pascoe, systems safety engineer. “This is the same life cycle we’ve seen in all Air Force aircraft.”

“The Air Force applies the same standard of safety with the same rigor and focus to RPAs as we do with any other aircraft in our inventory,” Howard said. “Our goal is to preserve combat capabilities by identifying hazards and reducing risk.”

— Darlene Y. Cowser
Air Force Safety Center Public Affairs

TWO PAVE HAWK PILOTS EARN DISTINGUISHED FLYING CROSS

KIRTLAND AIR FORCE BASE, N.M. (AFNS) — Two HH-60G Pave Hawk pilots at Kirtland recently were awarded the Distinguished Flying Cross for heroic actions performed while deployed to Bagram Airfield, Afghanistan.

Capt. Christopher Palmer, 512th Rescue Squadron, chief of standardization and evaluation, and Capt. Marcus Maris, 512th RQS, student flight commander, were presented the Distinguished Flying Cross by Col. James Cardoso, 58th Special Operations Wing commander, during a Warrior Call at Kirtland AFB.

Maris distinguished himself during a mass-casualty evacuation mission in Watapur Valley, Afghanistan, on Nov. 14, 2010. He flew his Pave Hawk in extreme mountainous terrain and performed a precision hover and hoist while under enemy fire. During this maneuver, three pararescuemen were lowered to the ground. After that he departed to rejoin his wingman in a defensive pattern overhead. Once the casualties were ready for evacuation, Maris and his crew returned to the landing zone to evacuate 11 casualties and bring in medical supplies.



Palmer took part in two mass-casualty evacuation missions. He flew one on Nov. 12 and then was part of the same mission Maris was on Nov. 14. While on the first mission, a crew member was wounded and the primary flight controls were damaged. After bringing the wounded crew member back to base and despite the aircraft's degraded capabilities, Palmer and his crew returned to the landing zone to continue their mission. During the second mission, he engaged the enemy to provide cover for the other aircraft while it was lowering the pararescuemen. His fire suppression allowed for vital medical supplies and care to be provided to those injured on the ground and then their evacuation.

Both officers will use their experiences to help train the next generation of rescue pilots, and both are in line to be promoted to major.

"I could not be more proud," said Lt. Col. John Galik, 512th RQS commander. "It's an incredible job that they do. ... They will both bring that experience back and teach our young students coming in."

— *Stefan Bocchino*

377th Air Base Wing Public Affairs

FOUR DIE, TWO INJURED IN C-130H3 CRASH INVESTIGATORS CITE CREW'S INADEQUATE ASSESSMENT OF OPERATIONAL CONDITIONS WHILE CONDUCTING WILDFIRE OPERATIONS AS MAIN CAUSE

An Air Force accident investigation board has determined the cause of the July 1 C-130H3 crash in Edgemont, S.D., that killed four crew members and seriously injured two others as they were conducting wildfire operations in the area.

According to the mishap report, investigators found by clear and convincing evidence the cause of the mishap was the flight crew's inadequate assessment of operational conditions, resulting in the aircraft impacting the ground after flying into a microburst. Additionally, investigators found by the preponderance of evidence, the failure of the White Draw Fire Lead Plane aircrew and Air Attack aircrew to communicate critical operational information, as well as conflicting operational guidance concerning thunderstorm avoidance, also substantially contributed to the mishap.

Both pilots, the navigator and flight engineer died in the crash. Two loadmasters onboard were seriously injured. The aircraft was destroyed, resulting in a total monetary loss of \$43,453,295, which includes an estimated \$150,000 in post-aircraft removal and site environmental cleanup costs, according to the report. There were no additional fatalities, injuries or damage to other government or civilian property.

The C-130H3, Tail Number 93-1458, was assigned to the 145th Airlift Wing, North Carolina Air National Guard, Charlotte Douglas International Airport, Charlotte, N.C. It crashed



ILLUSTRATION BY GIL COHEN

When a C-130H3 from the 145th Airlift Wing, North Carolina Air National Guard, crashed because of pilot error, four of the six-member crew died, and the other two were seriously injured.

on public land managed by the U.S. Forest Service, while conducting wild-land firefighting operations. All crew members were assigned to the 156th Airlift Squadron.

— *Tim Barela*