

# **TORCH**

Air Education and Training Command's

March/April 2010



**"LUCKY 13"**  
How to avoid cockpit errors  
PAGE 22

## Lightning in a Bottle

Melvin Clemmons doesn't claim to have super powers, but he has been touched by the heavens. He got struck by lightning and, miraculously, suffered no long-term ill effects

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Lightning strikes four Airmen in Florida

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Fifteen years after it happened, an amazing rescue of three Icelandic men trapped in a blizzard still stands out in the helicopter pilot's memory

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# F-38 TALON



*"If we should have to fight,  
we should be prepared to do  
so from the neck up instead  
of from the neck down."*

— Gen. James H. Doolittle

**TORCH**   
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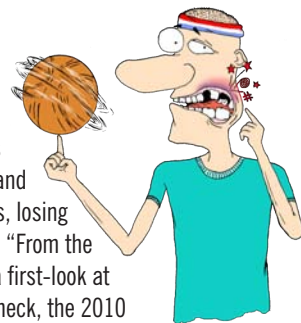
When three Icelandic men get trapped in a rugged, isolated area during a blizzard, it's up to an Air Force rescue helicopter crew to save them without crashing an aircraft in the process.



by Val Gempis

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## **FROM THE DIRECTOR**

By Col. **JOHN W. BLUMENTRITT**  
*AETC director of safety*

# **STOP THE BADNESS, MADNESS**

**B**abies born into the world have pretty clean records. Absent are predispositions to commit crimes, establish bad habits or take unnecessary risks such as driving a vehicle too fast. However, as these infants grow into men and women, temptations may lead to badness; and in some cases, the badness turns into madness!

Pick up a newspaper, watch the news, or read a mishap report. You probably will see many “babies-gone-bad” stories. Consequently, car accidents, DUI convictions, hefty fines and lost-time injuries can be maddening for family members and coworkers, not to mention the people who make the poor decisions that lead to negative events in the first place.

Why don't these malcontents just accept blame and then stop their badness and all this madness?

Dr. Thomas R. Krause, author of the book *Leading with Safety*, suggests that while fault-finding and demonizing people are natural reactions, these approaches are counterproductive because they lead to blame. And when people are threatened with condemnation, their defense mechanisms go up and bad behavior may, in their minds, be rationalized or even justified. ...

Thus, the madness continues.

In reality, most men and women who make imperfect decisions that lead to mishaps are not malcontents. And while there will perhaps be a need for punishment following an event, leaders should still embrace a safety focus, versus raw blame, in an attempt to determine cause and prevent future mishaps.

In fact, Air Force safety instructions challenge mishap investigators to avoid projecting blame. These investigators are trained to steer clear of the entangle-

ments associated with scolding, and instead, identify exactly where corrective action is needed. In line with this guidance, Dr. C. Ray Asfahl, author of the book *Industrial Safety and Health Management*, suggests hazard avoidance should not center simply on guilt, but may encompass enforcement, psychological and engineering approaches. Finally, Dr. Krause opines, “The useful question is not ‘Who was at fault?’ but rather ‘How can this injury, and others like it, be prevented in the future?’ ”

Leaders at all levels should stop madness, by abating badness, while shaping a culture of compliance, accountability and safety. As such, a combination of “carrot and stick” methods can be used to generate this culture, but finger-pointing should be set aside. Blame brings pain and is a backward-looking exercise. Finding the cause of a mishap, as an emotionally-neutral exercise, must be focused on preventing a similar mishap in the future.

By embracing a safety culture, you can help stop the badness ... and avoid the madness!

**“When people are threatened with blame, their defense mechanisms go up and bad behavior may, in their minds, be rationalized or even justified.”**

*John W. Blumentritt*



# EDUCATED AND ENTERTAINED

Just wanted to say that you guys do a heck of a job putting out a safety magazine. It's not the same old boring fare you see in other safety pubs. When I saw the January/February 2010 cover story on "The Scorpion Queen," it just confirmed what I already knew: Torch goes the extra mile to find interesting stories. Then you follow that up with the teenager who caught

the toddler who fell out of a second-story window — again not the typical story you see in military safety magazines. Thank you for making the extra effort to put out a product that's both entertaining and educational. You prove safety doesn't have to be boring.

Pete DeSalvo  
Via e-mail



## 'ENOUGH ALREADY'

Enough already with the motorcycle stories ("Queasy Rider," January/February 2010 issue, page 5). We get it: Motorcycles are dangerous. If people choose to ride them anyway, then that's their decision, and they have to live — or die — with the consequences. It seems the military doesn't want anyone to ride motorcycles, but that's just not going to happen. Military members are risk-takers by nature; these are the type of people you recruit. Be careful what you ask for ... all your ads cater to the adventurous, the dangerous. Then you turn around and practically discourage people from riding motorcycles? It just seems so hypocritical.

Retired Army Maj. "C.J." Jenkins  
Via e-mail



by Tech. Sgt. Matthew Hansen

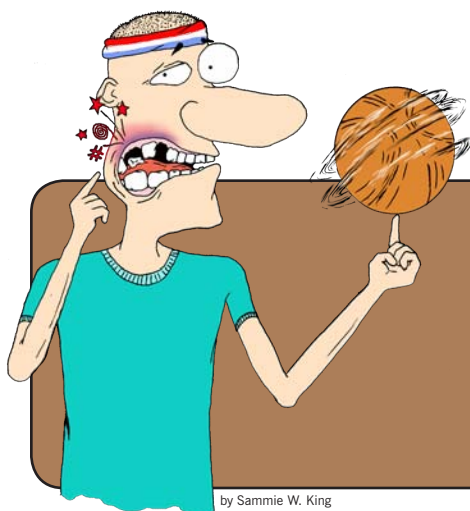
### LETTERS TO TORCH

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## RAVE FOR THE 'CAVE'

I wanted you to know how much I enjoyed Col. John Blumentritt's historical reference to education in the "From the Director" editorial ("Out of the Cave," January/February 2010 issue). What a great analogy. It is very tiring to hear, "We gotta be safe — 'cause." Putting it in a perspective that we managers and leaders can embrace and use to build upon the culture was a great idea.

Joseph L. Wegner  
Lackland Air Force Base, Texas



by Sammie W. King

## FEELING THE PAIN

I read "Roundball Ruckus" (January/February 2010 Torch, Page 6) with interest. While I never swallowed any busted teeth, I lost three front teeth to an elbow while playing basketball, so I feel Matthew Stokes' pain. Unfortunately, just like Mr. Stokes, that's what it took for me to finally start wearing a mouthpiece on the court. Hopefully, other people who love to play ball will read your article and take heed. It's a common injury in basketball.

J. "Stoney" Stoneman  
Phoenix

# A GRAND INTRODUCTION

My husband and I were introduced to Torch magazine yesterday when the parents of Jackson Rogers came to my husband's family practice clinic and showed him the cover story featuring their son ("They Man an Anywhere Ambulance," November/December 2008 issue). My husband, Retired Navy Cmdr. David L. Staggs, delivered Jackson 24 years ago, and I believe I taught his parents Lamaze classes way back then.

We are so proud of Jackson and his service to our country!

Torch magazine, we were delighted to find, is full of well-written, well-designed and well-photographed articles that reaffirm our faith in the U.S. military.

As the grandparents of three little boys, we are using every vacation to indoctrinate



them in the love and service of our country by visiting the Naval Air Museum in Pensacola, Fla. They literally sleep in their flight jackets we got them there, and on their Christmas lists this year were requests for new Blue Angels DVDs, since the old ones are worn out!

I trust your calendar will show them that all the military branches do heroic and

inspiring work serving our country in other ways ... although it'd be tough to see them join another branch of service. Go Navy!

Thank you for your work and service to keep this country strong and proud. There are many folks like us back here in the daily trenches who applaud your efforts.

*Beverly Staggs  
Searcy, Ark.*

## A 'GREAT REALITY CHECK'

I'm a contractor with the board support officer records at the Air Force Personnel Center. Thank you for such a great reality check magazine.

*Audrey Whitfield  
Randolph Air Force Base Texas*

We (Georgia Civil Air Patrol Squadron 152) are all excited about Torch magazine, and the calendars are outstanding. There are some wonderful articles about the sacrifices our Air Force men and women are making, and we are so proud of every one of them. The articles help give us a heads up about how we can make safety improvements in our unit and community. It is safety awareness and putting it into action that keeps everything moving in the right direction.

*Lt. Hazel Senter  
Morganton, Ga.*

It is always a tremendous asset to have safety-related magazines from other branches of the service to ensure the safety of our soldiers and pilots (at the 5th Aviation Battalion, which has 350 people assigned). Thank you.

*CW4 Mark C. Mestre  
Fort Polk, La.*

I find Torch magazine articles very beneficial to share with my commanders and group staff.

*Lt. Col. Joseph Goldman  
Binghamton University, N.Y.*

Torch magazine is a great publication. ... Thank you so much.

*David Altman  
Lincoln, Neb.*

## CALENDAR KUDOS

I picked up the Torch calendar at the Randolph Air Force Base, Texas, commissary and have been receiving positive feedback on the pictures ever since. They are outstanding.

*Elena Esparza  
Via e-mail*

.....

You guys do a great job putting the calendar together. Thanks!

*Tony Hemmen  
Wichita, Kan.*

The mechanics in the C-130 Propeller Flight just love the calendars.

*Maria Tyler  
Robins Air Force Base, Ga.*

.....

Lear Siegler Services, Inc., is a contracting company at Laughlin Air Force Base, Texas, and we always enjoy your calendar and magazine, along with the insights and information.

*Rosie Thomas  
Laughlin Air Force Base, Texas*



# PACKAGE BOMB VICTIM GETS HAND TRANSPLANT



by Staff Sgt. Bennie J. Davis III

**Donning a hospital gown with her former first sergeant rank and the patches of her former units, retired Master Sgt. Janet McWilliams talks to the media March 3 after undergoing a hand transplant Feb. 17 at Wilford Hall Medical Center, Texas. She is the 10th person to undergo the procedure in the United States and the first to have it done at a Defense Department facility.**

**LACKLAND AIR FORCE BASE, Texas** — A team of military and civilian doctors performed the first-ever female hand transplant in the United States Feb. 17 at Wilford Hall Medical Center here.

Retired Master Sgt. Janet McWilliams, a victim of a July 31, 2001, package bomb sent by a disgruntled Airman who had been involuntarily discharged from service, is the 10th person in the United States to undergo this procedure and the first to have it done in a Department of Defense facility. *Torch* featured McWilliams in its September/October 2004 issue as she continued to recover from her devastating injuries.

Nearly nine years ago, the former first sergeant of Lackland's 342nd Training Squadron lost her left hand when the package bomb exploded in her office. The blast also severed fingers off of her right hand, filleted her torso, blew out both eardrums, caused flash burns to her lungs and powder burns to her body, and damaged her right eye, as a piece of shrapnel bounced in it like a pinball. Her assailant, Brandon Walters, was convicted of the attack and sent to prison in September 2002.

After years of surgical reconstruction and failed attempts to find a suitable prosthesis for her left arm, doctors asked McWilliams if

she was willing to be put on a waiting list for a hand donor. Even after nearly 30 painful surgeries, her answer was instant: "Yes!"

On Feb. 16, a hand donor was identified.

"I received a gift, a hand," said an emotional McWilliams, who had her husband Dan by her side to comfort her.

Two weeks after the surgery, McWilliams already experienced movement in her thumb and fingers, said Maj. (Dr.) Dmitry Tudor, who was part of the surgical transplantation team and is the chief of Hand and Upper Extremity Service at Wilford Hall. However, he said it would take at least six months and lots of occupational therapy for her to regain any feeling in her new hand.

This transplant, McWilliams said, is not only a significant occasion for her, but for all wounded warriors.

"I am hoping that I can open the door for other wounded warriors who are coming back from Iraq, Afghanistan and other areas of the world who've lost hands (or) arms," she said. "Hopefully this will provide hope for them as well as receiving something back that is absolutely priceless ... our dignity."

— Staff Sgt. Vanessa Young  
Defense Media Activity-San Antonio

# EARTHQUAKE IN CHILE

## TRANSLATORS HELP ENSURE PATIENT SAFETY DURING HUMANITARIAN MISSION

*ANGOL, Chile (AFNS)* — With the help of dedicated translators, Chilean patients could describe their pain to Air Force doctors after the Feb. 27 earthquake. Additionally, Airmen were able to explain expeditionary medical equipment to Chilean medics, and local Chilean officials could relay the support they needed to meet the medical needs of more than 110,000 people here.

Members of the Air Force Expeditionary Medical Support team completed a humanitarian mission to build an expeditionary hospital and augment medical care for members of the Angol community March 26. The 82 Airmen from 16 different bases arrived in Chile March 10. With help from members of the Angol community, the Chilean army and the U.S. Agency for International Development, they turned a bare polo field into a fully-operational hospital in 3.5 days. During a ceremony March 24, U.S. government officials donated the hospital to the local Chilean medical community, as the hospital in Angol was severely damaged in the 8.8-magnitude earthquake.

From the day the hospital opened March 13, Chilean and Air Force medics treated more than 300 patients and performed about 40 surgeries (through March 26). During that time, translators played an important role in ensuring patient safety.

The primary translators in the field hospital supported Airmen, Chilean medics and patients. They moved from room-to-room, patient-to-patient, translating items as simple as asking if a patient needs anything, to something as complex as a surgery procedure.

"I didn't realize how important my job would be here until I was in a surgery, translating between surgeons — a Chilean surgeon on my right ear and an American surgeon on my left ear," said Tech. Sgt. Antonio Andrade, a translator at the EMEDS hospital who was deployed from Mountain Home Air Force Base, Idaho. "Communication is key. You can bring all the help you want to another country, but if you don't speak their language, it's going to be very difficult to make the mission happen."

The grueling 12-hour shifts, seven days a week in the hospital proved to be challenging, with little time to sit down to take a break for the much-needed dual language pros, according to Staff Sgt. Abraham Rodriguez, NCO in charge of the Defense Institute for Medical Operations at the Air Force School of Aerospace Medicine at Brooks City-Base, Texas.

"(We) have to be very precise in what we do and how we translate," Rodriguez

said. "Some medications sound similar; so if we say something wrong, it could get bad very quickly."

"I could be in the emergency room helping with trauma care, and I'm responsible for telling the doctor how a child feels," said Andrade, a dental assistant assigned to the 366th Dental Squadron. "But, I'm also responsible for answering the parent's questions: 'What kind of medication are you giving my children?' 'How often do they need to take it?' We have to do the best we can and make sure the mission continues."

As the chief of nursing here, Maj. Sharon Walker from the 81st Medical Group, Keesler AFB, Miss., was responsible for teaching most of the Chilean medics how to use different equipment in the EMEDS hospital.

Without the translators, the life-saving mission wouldn't be successful, she said.

"Whenever we didn't have a translator, things were really slow," Walker said. "The conversation could go on for about 10 minutes ... and get nowhere. When a translator appeared, there was a sigh of relief from both sides."

The interpreters definitely understood how important their services were.

"With the language barrier, if someone has a history of a medical problem and we don't translate it correctly, the medical care will be off," said Senior Airman Cassondra Johnson, an aerospace medical technician assigned to the 81st at Keesler. "We (helped) make sure the patients got the right care."

— Staff Sgt. Vanessa Young  
Defense Media Activity-San Antonio

**While checking the heartbeat of an ill child at an expeditionary hospital in Angol, Chile, Maj. Deena Sutter receives assistance from Staff Sgt. Abraham Rodriguez (center), one of the translators sent on the mission. Sutter is assigned to the 59th Medical Wing, Wilford Hall Medical Center, San Antonio.**



by Senior Airman Tiffany Troja



# PLANE KILLS JOGGER

**FATAL COLLISION HAPPENS DURING EMERGENCY LANDING ON SOUTH CAROLINA BEACH**

**HILTON HEAD ISLAND, S.C.** — A 38-year-old father of two was jogging and listening to his iPod when he was hit from behind and killed by a small plane making an emergency landing on the beach, authorities said March 16.

Robert Gary Jones of Woodstock, Ga., was killed instantly on Hilton Head Island on the evening of March 15, said Beaufort County Coroner Ed Allen.

The single-engine plane had lost its propeller, and the pilot's vision was blocked by oil on the windshield, Allen said. The aircraft was basically gliding.

"There's no noise," said aviation expert Mary Schiavo, a former inspector general

for the National Transportation Safety Board. "So with his ear buds in and the plane without an engine, (it's) basically a stealth aircraft. Who would look up?"

Hilton Head fire and rescue spokeswoman Joheida Fister said the pilot and a passenger on the Experimental Lancair IV-P plane were not injured.

The plane left Orlando at 4:45 p.m. and was headed for Virginia, Fister said. It started leaking oil at about 13,000 feet and tried originally to make it to Hilton Head Airport, she added.

The oil on the windshield blocked the pilot's vision, and he told authorities the propeller came off the plane. When he tried

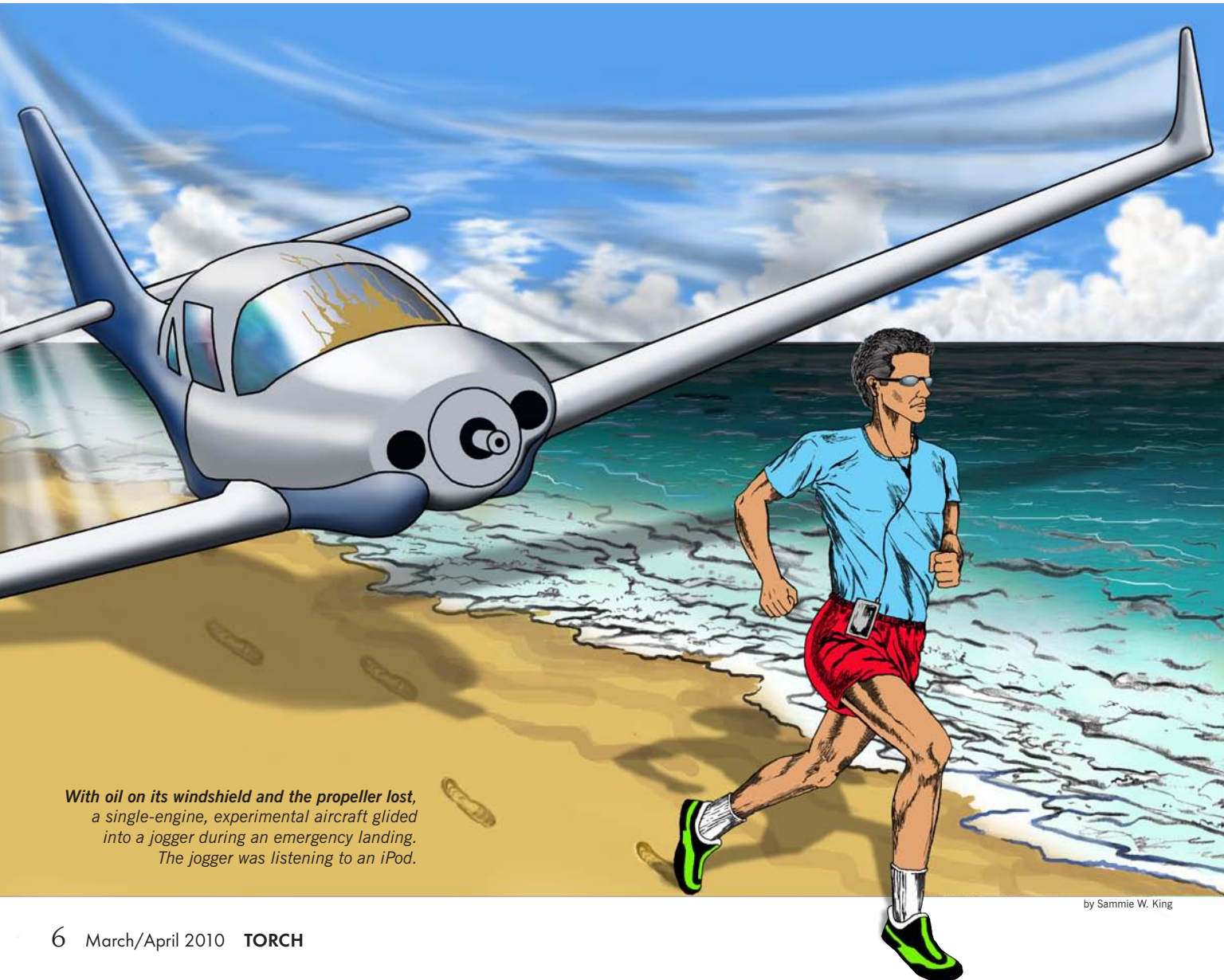
to land on the beach near the Hilton Head Marriott Resort and Spa, the plane hit the jogger and came to rest a little farther down the beach, she said.

"It's pretty unusual," Fister added.

Jones was married and had two children, the coroner said. He was on a business trip and was looking forward to heading home to celebrate his daughter's third birthday.

The National Transportation Safety Board lists 14 incidents involving the home-kit-assembled Lancair IV-P since 2005. Eight of them led to 15 deaths.

— Russ Bynum  
The Associated Press



*With oil on its windshield and the propeller lost, a single-engine, experimental aircraft glided into a jogger during an emergency landing. The jogger was listening to an iPod.*

by Sammie W. King

*Fiddling with a GPS unit while driving can be a distraction and cause a loss of situational awareness that can lead to a mishap. It's best to set up the unit before you hit the road.*

# 'RECALCULATING ROUTE'

GPS HAS ITS ADVANTAGES, BUT IT CAN ALSO BE A DISTRACTION ON THE ROAD

COLUMBUS AIR FORCE BASE, Miss. — "Recalculating route."

How many times have you heard a global positioning system say this simple phrase to you while driving?

Pilots have known for a long time about the perils of relying on GPS for everything. It is a known distraction, and as any instructor pilot will tell you, a GPS can decrease the situational awareness of a student faster than a pretty moving map display can restore it. Knowing this, we train in the flying regime to always accomplish a proper mission plan, complete with fuel planning and route study, and we use GPS as one of many tools in a full bag of tricks. Occasionally a pilot will forget this, and we hear the inevitable "there I was" story as a result.

Recently on a couple of different TDYs, I have seen similar detrimental effects from the use of GPS and moving maps while driving. Some issues were as simple as getting lost by relying too much on a cell phone or GPS for directions. Other issues were more serious and nearly caused accidents because drivers either had late reactions to the directions or gave too much attention to the device and not enough attention to the road.

In one glaring instance I witnessed the ultimate example of this. The vehicle driver was driving on a busy highway while adjusting the displays on his cell phone map. At the same time, the front seat passenger used the rental GPS and a rear seat passenger used another cell phone.

With the inevitable disagreement of three devices and three "navigators," the multiple distractions caused the vehicle to be a serious hazard in heavy traffic. To top it off, despite having all of that technology, they missed the first three turns completely. It is a minor miracle no mishap occurred as a result of this task saturation and buffoonery.

With that in mind, you can use some simple tips (right) to help you safely use GPS the next time you are driving around in an unfamiliar area. Ensure your GPS becomes a great asset to your travels rather than the cause of frustration or an accident.

— Maj. Frank Cooper  
14th Flying Training Wing flight safety

## AVOID GPS DISTRESS

### 1. Don't drive while setting up the device.

Whether it is a cell phone or GPS, it's an obvious distraction if you are fiddling with it while driving. Bases and many local communities have laws about hands-free devices and texting with cell phones. This distraction is no less serious with GPS and can often take even more of your attention. Set the device up ahead of time while parked. If you change plans mid-stream, find somewhere to pull over or have a passenger make the changes for you. Just beware; even a passenger assisting you is a distraction.

### 2. Expect the GPS to be wrong at some point.

Technology is great but it does not fix everything. Bring a paper map, and be prepared to use it along with GPS. Rental companies and hotels still have these most of the time.

### 3. Plan ahead.

It's fun to take out your phone or GPS and ask for directions to the nearest restaurant, but you just failed to plan anything. You are relying entirely on the phone or

GPS. Refer to tip two, and you can see the problem. Ask the concierge or a local for directions. Not only can they tell you the simplest, safest, fastest or otherwise best route to follow, but they also can tell you restaurant X is horrible and you should try restaurant Y.

### 4. Don't overreact to the GPS.

When you hear the inevitable "recalculating route," don't slam on the brakes or swerve to make the off-ramp. It's recalculating just like it says. If you trusted it the first time, you might as well take the next turn or accomplish the U-turn when it tells you. Depending on the accuracy of the GPS, you might not have missed the turn at all.

### 5. Give yourself plenty of time.

This applies doubly if you choose not to use tip three. There is no harm in showing up a few minutes early to your final destination. If you have a fancy cell phone, you can even use it to check your e-mail or play a game while you wait a few minutes for the people who got lost using the GPS-only method.

— Maj. Frank Cooper



# Lightning in a Bottle

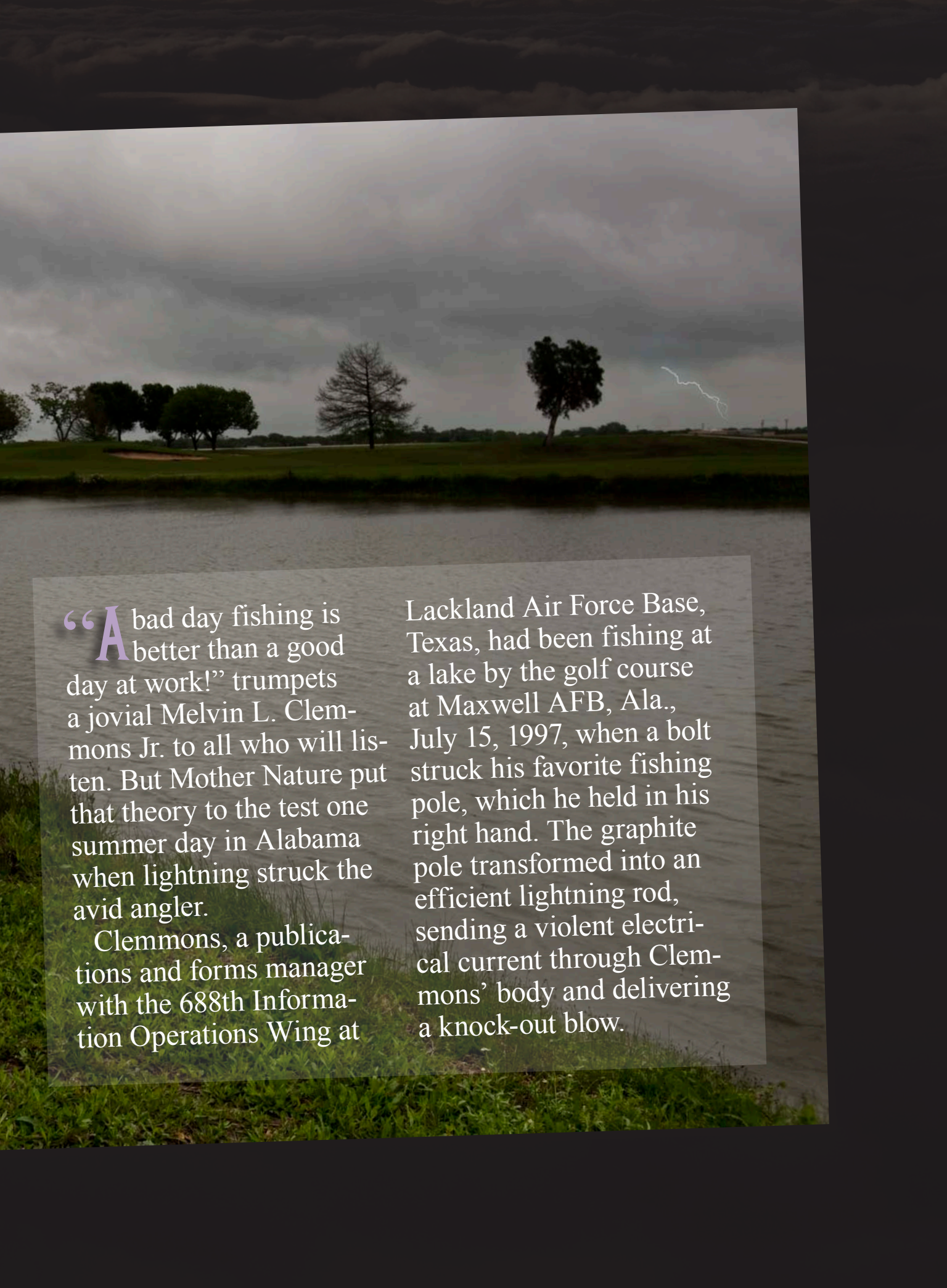
Melvin Clemmons doesn't claim to have super powers, but he has been touched by the heavens. He got struck by lightning and, miraculously, suffered no long-term ill effects

By **TIM BARELA**

Digital composite by **STEVE THUROW** and **DAVID STACK**







“A bad day fishing is better than a good day at work!” trumpets a jovial Melvin L. Clemmons Jr. to all who will listen. But Mother Nature put that theory to the test one summer day in Alabama when lightning struck the avid angler.

Clemmons, a publications and forms manager with the 688th Information Operations Wing at

Lackland Air Force Base, Texas, had been fishing at a lake by the golf course at Maxwell AFB, Ala., July 15, 1997, when a bolt struck his favorite fishing pole, which he held in his right hand. The graphite pole transformed into an efficient lightning rod, sending a violent electrical current through Clemmons’ body and delivering a knock-out blow.





by Tech Sgt. Samuel Bender

"I love to fish," said Clemmons, who grew up in Queens, N.Y. "I didn't get much chance to fish when I was in New York, so when the Air Force sent me to places like San Antonio and Montgomery (Alabama), I got addicted."

He's not exaggerating.

While working in the Air Force Doctrine Center at Maxwell, the retired senior master sergeant would fish three or four times a week.

"Sometimes I'd fish before work. Sometimes, I'd fish during my lunch hour. And sometimes I'd fish after work," he said smiling. "On a good day, I'd do all three."

He said that if his wife, Phyllis, wakes up in the middle of the night and he's not there, she doesn't worry. She'll just roll back over and sleepily mutter, "That fool's gone fishing again."

On the day of the mishap, Clemmons couldn't wait for 4:30 p.m. to roll around. It was a beautiful summer day, and his fishing fingers were getting itchy.

"As soon as I got off work, I jumped in my van and headed to the lake," he said.

By the time some darker clouds started rolling in, Clemmons had caught two catfish and a large-mouth bass.

"When I heard the thunder and saw the lightning, I climbed into my van to wait out the storm," he said.

There had been a few other fishermen at the lake, but when the rain moved in, they moved out. Clemmons, however, wasn't about to give up so easily. To him the storm was nothing more than an annoying interruption to his fishing excursion. He sat impatiently in the van, determined to wait it out.

After about 30 minutes, though, the storm only seemed to be gaining in intensity, so stubbornness slowly transformed to surrender. He'd have to fish another day.

"I got out of the van to gather up my gear," he said. "My fishing pole was leaning against a cooler. I reached for it, and the next thing I remember is waking up lying face-down in the mud."

"When I tried to stand up, I couldn't. . . . I said, 'Please, God, don't take my legs!'"

The bolt, which shattered his rod, made quite a mess of him too.

Blood trickled from his nose, and his head pounded painfully to the steady beat of an imaginary bongo. He felt a cut above his right eye, which had nearly swollen shut. And his teeth ached as if he'd just swished icy water after a trip to the dentist.

But the worst was yet to come.

"My instinct was to get up out of the mud," he said. "But when I tried to stand up, I couldn't."

He couldn't feel his legs.

"I said, 'Please, God, don't take my legs!'" he recalled with a solemn look in his eyes.

Then in a panic, he said he started furiously beating both of his thighs with his fists.

"I couldn't feel anything in my legs," he said. "It was very scary."

After what seemed like an eternity, but was probably only about five minutes, Clemmons said he started to get that "pins and needles feeling" in his lower limbs. But that uncomfortable tingling sensation offered Clemmons his first bit of relief.

"The feeling was slowly coming back into my legs, so I was just happy I wasn't going to be paralyzed," he said.

He still couldn't walk, but drug himself into his van for fear of getting struck a second time as the storm hadn't let up. While in the van, his legs regained enough feeling that he could stand and even stagger around a bit.

"I must have been a little loopy, because I got back out of the van and threw all my gear inside ... not the most common sense decision," he said. "I needed immediate medical attention."

Since he was the only one left at the lake, he knew he would have to try to get himself to safety. So he got back into the van and slowly drove to the security forces law enforcement desk. He stumbled into the law enforcement office looking like someone who'd had one too many whiskey sours.

Security forces alerted the base hospital, and an ambulance arrived moments later.

"The medics immobilized me by strapping me to a board and hooked me up to an IV," he said. "Then they transported me to the base hospital."

After more than four hours of poking and prodding at the base hospital, Clemmons was transferred to Columbia East Medical Center in Montgomery for further tests, including blood work, heart exams, X-rays and a CT scan. They kept him overnight.

He'd suffered some nerve damage in his legs and a herniated disc in his neck.

"I endured pain in my legs for weeks while the nerves regenerated," he said.

Fortunately, though, he regained full use of his legs after weeks of physical therapy. He suffered no long-term ill effects, other than occasional stiffness in his neck.

According to Lightning Strike and Electric Shock Survivors, International, Clemmons is lucky. Many lightning strike victims sustain permanent brain and neurological damage, not to mention internal and external burns, and in the worst cases, death.

"A lot of people think this could never happen to them," Clemmons said. "But, by the grace of God, I'm here to tell you that it can. I made a lot of mistakes that day: I didn't check weather reports, I went to the lake by myself, and I got out of the vehicle with lightning flashing all around. I'm lucky I wasn't killed. What if I'd fallen into the lake when I'd gotten knocked out? With no wingman there to pull me out, I would have drowned. Don't take any chances in a thunderstorm."

After the incident, Clemmons' vice commander nicknamed him "Zappo" and put up a slide of a lightning bolt by the lake at staff meeting titled "Mel's Fishing Spot."

Clemmons takes it all in stride and still believes *almost* any day spent fishing is better than a day at work. But to anyone who will listen, he'll tell them about at least one exception he knows all too well. ⚡

# How to Get Struck by Lightning

Melvin Clemmons admits he made some mistakes that led to him getting struck by lightning. For those who want to tempt fate, follow his same path:

- ⚡ Don't check area weather reports.
- ⚡ Don't travel with a wingman to watch your back.
- ⚡ Ignore dark storm clouds.
- ⚡ Be within 10 feet of a lakeshore in the middle of a thunderstorm.
- ⚡ Grab a graphite lightning rod, er, fishing pole, and hold on tight.



# Bolt from Above

## Lightning strikes four Airmen in Florida

By **TIM BARELA**

Photo by Tech. Sgt. **SAMUEL BENDET**



*When a lightning bolt struck during a training exercise in Florida, Airman 1st Class Ryan Cleaver, left; Staff Sgt. Michael Fox, center; and Airman Basic Duriel Harris were knocked off their feet and received minor injuries. Their instructor, Staff Sgt. John Dean (not pictured), suffered more serious wounds.*

**L**ightning struck an instructor and three students from Detachment 3, 342nd Training Squadron, Hurlburt Field, Fla., during a training exercise at the nearby Eglin Air Force Base, Fla., range Feb. 22.

Staff Sgt. John Dean, the 31-year-old instructor, suffered serious wounds and had to be hospitalized for 48 hours and placed on quarters for 14 days. He was still receiving medical treatment two months after the incident. The students included Staff Sgt. Michael Fox, 22; Airman 1st Class Ryan Cleaver, 20; and Airman Basic Duriel Harris, 19, all of whom sustained only minor injuries and were released from the hospital the same day of the incident.

The strike knocked the four members off of their feet as they were conducting vehicle navigation training near their HUMVEE as part of the Tactical Air Command and Control Apprentice Course.

"I was three feet from the vehicle when everything went black," said Dean, a West Virginia native.

An instant after his world went dark, the instructor said he regained his sight as his 6-foot-1, 225-pound frame went crashing to the ground.

"Everything happened so fast," said Dean, a husband and father of a 6-year-old daughter and 3-year-old son. "I was falling, but I couldn't do anything about it. I couldn't move to catch myself."

When the sergeant hit the ground, he lay staring into the eyes of Fox, who also was temporarily immobilized.

"That was an eerie moment, as we just lay there staring at each other wide-eyed," Dean said.

But while Fox and the two other students quickly regained their footing, Dean lay there unable to move other than the involuntary twitching and convulsions of his body.

"At first I could barely speak," Dean said. "I couldn't get a full sentence out."

But he did manage to force out one word. ...

"Help!"

Then the pain hit.

As another instructor approached Dean to render assistance, the strike victim yelled, *"Don't hit me again! Don't hit me again!"*

"The instructor thought I was hollering at him, but I was speaking directly to God at that point," Dean said. "Because I was totally expecting another bolt to come finish me off."

With his right arm and chest in agony, the instructor soon gave his attention to more than just God.

Trained professionals started assessing "my wounds and trying to move me," he said. "But even the slightest touch felt like they were thrusting hot knives into me."

Doctors later told Dean that the lightning bolt had entered through his right triceps, traveled across his chest, then went down his abdomen and hip. From there it followed his sciatic nerve down his left leg, past his ankle and finally exited out the side of his left foot.

Safety investigators concluded that the mishap likely occurred as the result of a lightning arc, as opposed to a direct hit, which probably would have inflicted even more serious injuries.

For Dean, the damage seemed plenty bad enough.

"At first all the pain was coming from my arm and my chest," he said. "My left leg was so fried, it felt like it wasn't there. The first time I tried to get up, it was like trying to stand on Jell-O."

But the numbness in his lower limb wouldn't last.

"Eventually, the big hurt came from my leg," he said.

As a matter of fact, he endured so much pain for the first month after the strike that he said he could hardly think straight because he was heavily medicated.

Fortunately, medical experts don't believe he suffered any permanent damage. The impaired nerves in his leg are regenerating. He still goes to physical therapy twice a week and regularly sees a neurologist, but doctors expect him to make a full recovery.

Ironically, Dean is a combat veteran who has served on the front lines in both Iraq and Afghanistan calling in close

*"Even the slightest touch felt like they were thrusting hot knives into me."*

air support strikes for the Army — the same thing he is teaching his students to do.

"I survived those hot spots, only to get struck by lightning in a training environment," he said.

Mishap investigators said that the team complied with local lightning procedures in place at the time of the incident, but did propose some changes to those guidelines to help prevent future strikes. Among those recommendations is having their unit added to the Duke Field, Fla., weather notification checklist for prompt notification of inclement weather or other events.

And Dean has some advice of his own.

"If there's a storm in the area, go inside until it has completely passed," he said. "It'll be worth the wait." ⚡



## When Thunder Roars, Go Indoors!

- Each year in the United States more than 400 people are struck by lightning.
- On average, between 55 and 60 people are killed by lightning each year, about the same number as tornados and more than hurricanes.
- Nearly 300 people suffer permanent neurological disabilities each year from lightning strikes.
- All thunderstorms produce lightning and are dangerous.
- Lightning often strikes outside the area of heavy rain and may strike as far as 10 miles from any rainfall. Many lightning deaths occur ahead of storms or after storms have seemingly passed.
- If you can hear thunder, seek shelter immediately.

— The National Oceanic and Atmospheric Administration



# PREPARING FOR AN

## An inside look at one of the Air Force's

Our Air Force has many traditions. Some we inherited from other services; others are more recent and will take time to fully develop. Traditions are positive things, deeply rooted in our heritage and pride. Traditions are things we don't easily give up.

One of our traditions, however, isn't often recognized as "positive" and doesn't get the applause it deserves. That tradition is one of our strongest and most resilient. You see, our Air Force is dynamic — always adapting to meet new missions and to counter new threats. With our world and its realities continually evolving around us, living in a culture of change is inevitable. This creates a level of uncertainty, and people generally don't like uncertainty. Such change, however, is vitally important and allows us to maintain our efficiency, effectiveness and relevance.

So then, what is the best way for a leader to guide people through change? There are certainly many methods to do so and each one depends on the type of change expected. In all cases, however, the principles that underlie the preparation for change are the same. Preparation builds confidence, helps a leader's organization be less fearful of approaching uncertainty, and ensures the organization is much more effective once change arrives.

This is where education and training come into play. We educate to prepare for uncertainty. Education helps us understand why the change is necessary. It also helps us objectively assess the environment and rationale necessitating the change. With objectivity, we can unemotionally assess the benefits and drawbacks of the different potential courses of action.

Education is a never-ending self-improvement process. The different levels are predicated to occur at specific spots in our careers — opening doors and creating opportunities. Because the Air Force lines up education programs with future levels of responsibility, it can be difficult to adequately catch up on education. Never pass up the opportunity to further your education.

While education helps us prepare for uncertainty, training programs are designed to prepare for certainty. After all, it's those things that we expect that fill our syllabi and lesson books. We train for them over and over until recognizing and reacting to them is second nature. This is one reason



**"When we make mistakes or experience negative outcomes, it's not as much fun to investigate them as it is to prepare for them."**





# UNCERTAIN FUTURE

## s most dynamic traditions

By Gen. **STEPHEN R. LORENZ**  
Digital composite by **DAVID M. STACK**



why we use checklists so much in the Air Force. They help lead us accurately through challenging times. Through experience, our collective list of “certainty” grows. It shapes the evolution of our training programs. You see, when we react to a challenge, we create a certain result.

**“Positive results, we truly have an opportunity to learn ...  
te our failures.”**

Positive results reinforce the action — and make us more confident. Although the positive result “trains” us to use the same response next time, it typically doesn’t teach us to handle anything but the exact same challenge. When we make mistakes or experience negative results, we truly have an opportunity to learn. Even though it may not be as much fun to investigate our failures, we are more apt to critically assess the challenge and develop other, more successful potential courses of action.

This is why our integrated safety programs, after-action teams and lessons learned archives are so valuable. They are an effort to take advantage of the experiences and mistakes of others to avoid having to relearn the same lessons over and over again. In essence, such programs help each of us prepare for future uncertainty and help bridge our learning programs from the training arena into our education enterprise.

As a leader, you must ensure your people have the education necessary to prepare for uncertainty and the training to guide them through certainty. As an individual, you must aggressively pursue these opportunities to further develop yourself as well. Such preparation will instill the confidence necessary to embrace change.

Implementing new ideas in your organization can be challenging. It takes careful thought, skilled execution and the full support of your team. It also can take time. It is always important to be evolutionary with change and not revolutionary. That way, your changes will have a much better chance to succeed over time.

Sometimes it is hard to take pride in a culture of continuous change. But within uncertainty is opportunity, and opportunity helps fuel growth. Today, we must all adapt to change much more rapidly than ever before. It is one of our oldest and most important traditions ... and one that I hope will never change. ✦

General Lorenz is the commander of Air Education and Training Command, headquartered at Randolph Air Force Base, Texas. (AETCNS)





# Snow-blind



Fifteen years after it happened, an amazing rescue of three  
Icelandic men trapped in a blizzard still stands out  
in the helicopter pilot's memory

*By Col. STEVEN A. ESTOCK, as told to TIM BARELA*

*Photo by Senior Airman JONATHAN SNYDER; Digital imaging by Tech. Sgt. SAMUEL BENDET and SAMMIE W. KING*



With furious 60 mph winds blowing snow so hard that they would choke on it when they opened their mouths to talk or breath, the three Icelandic hikers knew they were in serious trouble.

They had set out on an adventure in the Icelandic interior to retrace the steps one man's grandfather had taken some 70 years earlier.

While traveling between two ominous glaciers, a violent blizzard hit and quickly buried or blew away all of their supplies and equipment. They attempted to build a snow shelter, but it collapsed under the weight of the rapidly growing snowdrifts. They tried to hollow out shallow indentions atop the snow to rest in and escape the wind. But as they lay in them, their clothes froze to the ground and the holes filled so fast it was as if they'd dug their own graves.

Forced to keep moving, they had to hope beyond hope that someone would find and rescue them from this white fury before it was too late.

When the Icelandic Coast Guard asked the Air Force for help rescuing three men stranded in a blizzard in the rugged Icelandic interior, I knew we were in for an interesting day. We were on the alert crew with the 56th Rescue Squadron at Keflavik Naval Air Station, Iceland.

We'd be going after them.

The path of the three Icelandic men took them between two glaciers. The glaciers are so large and so cold, they tend to make their own weather. They create cloud cover at elevations that don't exist elsewhere. Gale force winds form and flow down between them. Snowstorms develop and build at a moment's notice. As the men traveled between these two giant blocks of ice, they basically got caught up in a major storm consisting of all three of these phenomena. They lost all their supplies and gear and quickly realized their lives were in danger.

They still had an emergency locator beacon to send out a distress signal. However, the bulb was burned out on it, so they didn't know if it was working.

They wanted to stay in one place, but the snow came so fast and furiously that they would have been buried alive. So they had to keep walking.

Unbeknownst to them, the beacon worked and Icelandic rescue forces

tried to get to these guys in trucks and snowmobiles. But high snowdrifts and nasty weather blocked their path. The one helicopter the Icelandic Coast Guard had available was down for maintenance. They did have a fixed-wing aircraft they used for search and rescue, so they launched it. This plane flew over the cloud cover searching for the hikers.

***"They wanted to stay in one place, but the snow came so fast and furiously that they would have been buried alive. So they had to keep walking."***

Periodically there'd be a break in the clouds where they could actually look down through the weather, and they eventually were able to spot the trapped men. But they couldn't land to save them.

That's when we stepped up to the plate.

Back at Keflavik, we got notified of the rescue mission. We had a good, well-trained crew to man the HH-60 Pave Hawk helicopter and respond to the

emergency: Capt. John Blumentritt, copilot; Master Sgt. Clinton Coleman, flight engineer; and Master Sgt. Paul Pepin and Staff Sgt. William Peterson, pararescue-men. I served as the aircraft commander — my first such mission in that role.

Interestingly enough, I was originally scheduled to be the copilot for the mission. Captain Blumentritt, the most experienced pilot, was given the short-notice tasking to fill the aircraft commander position. But because he had been put on the flight at the last minute, he made the unselfish decision to recommend that I act as the aircraft commander. That was a great lesson in officership.

With high winds, low cloud cover and blowing snow at the scene, coupled with the rocky Icelandic terrain, the only way this mission could have been worse was if it were at night.

As we took off, the first task was to try to figure out exactly where these guys were in the interior of the island.

Because a mountain range stood between us and the search plane circling above the Icelandic hikers, we had bro-

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***With clouds above and whiteout conditions below, the HH-60 Pave Hawk aircraft commander said it was like flying inside a pingpong ball.***







**Col. "Stony" Estock, 45,** is the commander of the Air Force Reserve Officer Training Corps Detachment 430 at the University of Mississippi. He serves as the department chair and professor of aerospace studies. He is married with two children.

everybody was "eyes out," hunting for the victims.

I began to think there was no way we'd find them with this wall of blowing snow burying everything in its path. But suddenly the flight engineer yelled, "Survivors at three o'clock!"

We landed right behind the Icelanders, but the wind was howling so loudly that they couldn't hear our 10-ton aircraft. In fact, they continued to walk away from us toward an almost certain death.

So we sent the PJs out into the chaos. Trudging through the ever-deepening snow, our teammates had to fight through the 60 mph winds and stinging snow to chase down the nearly frozen men. You can just imagine their surprise, relief and joy when our PJs caught up to them, tapped them on the shoulders and hollered, "Want a ride?"

The survivors were too exhausted to form an audible answer over the roaring wind. But their broad smiles, which cracked some of the ice and snow that had collected on their beards and eyebrows, needed no translation.

Meanwhile, with each passing second, our aircraft was rapidly icing up and being buried by snow. So the PJs dragged the men to the helicopter and hurriedly loaded them up. Then we got out of there as fast as we could safely fly.

We were able to take the grateful, though cold and weary, adventurers to Reykjavik, where we handed them over to the Icelandic Coast Guard.

To save those lives the crew had to work well together, and everybody had to do their part. No single person was the star — it was the teamwork that shined.

*When the U.S. defense force members tapped the stranded Icelandic men on the shoulders, at first the frosty trio couldn't believe their eyes. They had accepted that they were probably on their death march and wouldn't last much longer in the relentless elements.*

*Then a gift from above drops in and changes everything.*

*Assisted by the PJs, the hikers struggle to the helicopter and experience a joy they'd never felt before. To a man, they were now able to appreciate a gift they'd taken for granted most of their existence. ... They'd live to see another sunrise.* ✕

ken and sporadic communications with the Coast Guard pilot. Thankfully, we were able to use a Scandinavian airliner as a communications relay platform. So the Icelandic aircrew that was soaring over the scene and had the three survivors in their sights talked to the Scandinavian airline pilot, who relayed their coordinates to our crew in the helicopter.

After we cleared the mountain range, we had to figure out how to proceed through the storm.

Were we going to stay on top of the weather where we knew it was clear and increase our safety, then descend when we reached the scene? The danger in that was we get over the survivors but the weather's so bad we can't get down through it. Then we lose valuable time that may cost the men their lives.

The other option was flying in a small area under the icy clouds and above the worst of the driving snow. The hazard there was the weather getting worse and the cloud cover dropping, essentially trapping us in a whiteout. Spatial disorientation close to terrain is the last thing we wanted to face.

Nevertheless, we weighed the risks and decided to stay under the cloud cover and fly directly to the survivors.

About 25 miles out from the stranded men, we got into what could be described as the inside of a pingpong ball. Blowing snow had climbed the rising terrain on either side of us until it blended with the

clouds and engulfed us in a sea of white. This forced us to fly 70 feet above the ground and slower than normal to maintain visual awareness with the landscape.

Even though it was daylight, the storm and cloud conditions made it harder and harder to see. So we searched for rocky outcroppings jutting up from the snow.

We bounced from rock to rock, picking our way through the whiteout.

***"We landed right behind the Icelanders, but the wind was howling so loudly that they couldn't hear our 10-ton aircraft. ... You can imagine their surprise when our PJs tapped them on the shoulders and hollered, 'Want a ride?'"***

Basically, we would use these references along our flight path to give us spatial awareness and confidence that we were not going to crash the helicopter.

As we pressed on, we closed the distance to the survivors. By the time we reached the "half-mile out" point,

by Tech. Sgt. Samuel Bender

# A Teacher's Tale

I had the pleasure of training Capt. "Stony" Estock (who made colonel in January) to be an aircraft commander in the HH-60 Pave Hawk. I'd been his instructor pilot and was impressed with his ability to learn quickly.

So when we got the call to find and rescue three Icelandic men stranded in a blizzard in the island's interior, I made a decision that surprised some people.

I began that fateful day charged to check and clear an HH-60 helicopter that had undergone some major maintenance repairs. I knew the squadron commander and Stony were preparing to fly a possible rescue mission, but my focus was on conducting multiple engine starts, hover checks and engine shutdowns while maintainers checked and repaired systems.

During a break, my boss (the operations officer) called me to the ops desk. In a rush, he said the squadron commander had to be pulled off the rescue mission and I was now to command the flight — with Stony as the copilot — and we needed to leave now.

Of course, this is what we live to do; so I was excited to go on the mission. But one thing didn't set well with me. I didn't believe I should be the aircraft commander.

My thoughts centered on leadership and safety.

First, from a leadership standpoint, I was weeks away from leaving Iceland. Stony would be taking over the reigns soon. He had just completed the aircraft commander course with flying colors, so this was a perfect time to



Col. John W. Blumentritt

validate the effectiveness of our training ... and to let him cut his teeth leading a team, in a storm, on a complex mission.

From a safety perspective, while I had been working with maintenance, Stony had been studying the weather, getting all the briefings and plotting routes. He was much more prepared to take the lead on this mission, regardless of whether or not I was the senior pilot or his former instructor.

So, I proposed that I go on the mission, but that Stony should be the aircraft commander. I think the decision caught the ops officer by surprise. But as I outlined my reasoning and he had a chance to think it through, it made perfect sense. When informed, Stony acknowledged the responsibility without batting an eye.

Besides being amped up to go on a rescue mission to save three lives, I was excited on another front. I mean, how often does a teacher get to witness his student put his training to the test in a real world environment sitting 2 feet from him?

Stony had been a good student, and it showed. But what really set him apart is when he started improvising and adjusting along the way, making choices that I hadn't taught him in the aircraft commander course. What that told me is Stony didn't know just *what* to think; he knew *how* to think.

And I knew I'd be leaving the squadron in good hands.

— Col. John W. Blumentritt  
AETC director of safety



**When an Air Force HH-60 Pave Hawk crew** set out to save three Icelandic men trapped in a blizzard, an instructor pilot used the real-world opportunity to validate the effectiveness of his unit's training program, as well as the mettle of a brand new aircraft commander.



# THE 'LUCKY 13'

It's an unfortunate fact that mishaps are part of the fighter aircraft business, to include witnessing fireballs and having friends die along the way. It seems that many times our careers are dangling by a thin piece of string, and it's up to us to personally use the wisdom of time to prevent it from breaking.

I've avoided a lot of close encounters over the years by pure luck. But to some degree, planning, anticipating and sticking to some basic principles has filled in when luck didn't come my way. It's impossible to have a perfect flight, and we all make errors. So I formulated the "Lucky 13" to help me keep the focus and discipline.

These proven techniques have helped me reduce and avoid cockpit errors while completing the mission in several different fighter aircraft; however, the "Lucky 13" can be applied to any aircraft. The focus of these 13 tips is avoiding and reducing common cockpit errors such as channelized attention, misprioritization and loss of situational awareness, the leading causes of fighter mishaps.

**1 Planning** — A well-planned flight improves or eliminates many of the risks of flying, plus it equips you to overcome channelized attention and misprioritization. I've found that a hand-drawn map remains in my brain longer than one printed from the computer. And when we plan together as a flight, things flow smoother because everyone knows exactly what's going on and can anticipate my next move. Having a plan for takeoff emergencies prevents that one second of hesitation that has caused many mishaps in the past. On the ground and zero knots is the place to formulate your plan versus pulling it out of your bag of tricks once airborne because many situations require an immediate reaction to prevent a close encounter from fixating on one thing. I've always added an extra five minutes to ground ops to prevent rushing.

**2 Simplifying and prioritizing** — Simple plans with realistic tactics have more of a chance of succeeding than complex plans with little or no contingencies. Interruptions and distractions such as an unnecessary radio call or someone not following the plan or being out of position can cause a snowball effect. This can result in the dominoes falling the wrong way and a flight filled with multiple "helmet fires" if a pilot can't compartmentalize and prioritize under pressure. Keeping it simple makes it easy to prioritize, and flying the jet is your number one priority! Don't let a radio call, threat reaction or other distraction force your attention into a corner with the ground or another aircraft. There are plenty of good pilots who smacked the ground or other aircraft for failing in this area.

**3 Watching out for the dumb, dangerous or different** — If it falls into this category, skip it. Common sense prevails. Taking calculated risk is part of the business of flying fighters. So eliminating unnecessary risk is your personal responsibility to reduce the chances of cockpit errors. You have control over your fatigue, diet, lifestyle, proficiency and ability to adapt to change, to name a few things that could contribute to a mishap. You're also the one making the decisions when you crest a ridge line well below the minimum altitude or continue a cross country after excess beverages the night before at the bar.

**4 Staying ahead of the aircraft** — You've got to be minutes ahead in your mind plus dealing with the present. If not, you're going to be jumping through hoops for the entire flight and not paying attention to what's important, such as that mountain, thunderstorm or aircraft off your nose. If your situational awareness is low and you're hanging onto the nozzle, climb away from the ground then call knock-it-off either in your cockpit or for the entire flight. Flexing to an alternate mission or returning to base may be the key to surviving the flight. Making a knock-it-off call because you're "tumbleweed" is one of the toughest challenges to flying fighters. The culture in your squadron significantly plays into this equation.

**5 Keeping yourself honest** — Pushing the decision height or turning around after diverting because you have "get-home-itis" should never be in your thought processes. Target fixation is common when the pressure is on. Are you too fatigued to pull 9 Gs today? You've got to be the one who recognizes when things are "going to hell in a hand basket" and knock it off. After your flight, honestly assess yourself and the rest of your flight's performance. Identifying lessons learned and evaluating everyone's performance will reinforce skills, habit patterns, techniques and judgment for the next flight.

**6 Maintaining proficiency and skill** — Currency doesn't mean you're proficient. It takes more than talent, effort and a love for tactical aviation to excel. It also takes a lot of repetition to keep your skill and proficiency level high to include correct habit pat-



# HOW TO AVOID COCKPIT ERRORS

By Retired Lt. Col. **EDWARD H. LINCH III**

Photo by Tech. Sgt. **MATTHEW HANNEN**

terns. Your Dash-One should have the important stuff highlighted to refresh your systems knowledge, so keep it close by your bed and reference it often. Flying realistic emergency procedure scenarios in the simulator keeps you focused on what's important. During an emergency is not the time to discover you're not as proficient on things as you need to be. Increased proficiency equates to faster reaction times with less probability of error because of distractions and unanticipated events. "Chair fly" your flight — especially if you're getting ready for a complex mission or check ride — to keep your thought processes sharp and fresh.

**7 Backing yourself up** — There are many mishaps that could have been prevented if the pilot had referred to and complied with the checklist or used the wingman to help make a judgment call or decision. The human brain is prone to error, especially when habit patterns are disrupted, modified or rushed because of malfunctions, weather, radio calls or any unexpected situations you may encounter along the way. Being prepared for any contingency by having abbreviated checklists on your kneeboard — including commonly referenced coordinates, frequencies, emergency airspeeds and backup approach plates for divers — are ways to keep your situational awareness high ... even when under pressure. Plus it keeps you from digging through and channelizing on your In-flight Guide/Pilot Aid when close to the rocks.



flight dropped significantly and the pilot was relaxed and not paying attention. It's easy to let your guard down and take a break. But you need to keep the focus. You can relax once you're back on the ground after the debrief. Complacency (subconscious and insidious) and overconfidence (conscious and pressing beyond the limit) will eventually reach out and touch you if you're not maintaining the focus and discipline to make well thought out decisions. Sensory inputs to the brain arrive via two paths. The shortest path is the emotional side that reacts prior and independently to the reasoning side, which is inquiring, evaluating and then making a sound decision. This is where flight discipline comes into play to block the "short circuit" so that you can focus and not let your guard down.

**8 Not letting your guard down** — The mishap database is full of reports on mishaps that occur on the way home from a long mission — most of the time because the intensity of the

**9 Communicating** — Listen to what's being said, anticipate radio frequency changes, communicate out turns, use hand signals, and use clear concise standardized communication. This will help prevent missing critical information and avoid task saturation. Communication breakdown is one of the key sources of cockpit error. If the check-ins are continuously missed or not in perfect timing, perhaps your wingmen are behind the power curve and not up to flying a demanding mission. Therefore, flex to an alternate mission or go home.

**10 Knowing your limitations** — Learn your physical and mental limitations. Are you too fatigued today to deal with multiple distractions, weather decisions and or high Gs? Are you ready to deal with the haze on the low-level in the mountains? Are you ready to divert? If you're pressing your limits then be honest, back off and reassess. Pressing the weather, Gs, fuel and fatigue are errors we can personally control.

**11 Having an out** — Always have a back-up option to execute for all aspects of the flight to include takeoff aborts, weather, unusual attitudes at night, simple distractions, fuel, alternate missions or a flameout landing. Having an out is the key to risk reduction. Don't get caught out of airspeed, altitude and ideas.

**12 Exercising in-flight judgment** — Unfamiliar and unexpected situations require us to be ready with quick decisions to avoid disaster. Sometimes you've got to suppress the ego when faced with judgment challenges. It's not always the most popular thing to do. Taking the cable and forcing your wingman to divert is not optimum, but it's better than burning up the brakes and running off the end. Hesitation for a few seconds is all that's needed to force a bad decision. Chair fly, hangar fly and think through common scenarios and contingencies to aid you in your in-flight decisions. The wisdom of time should be a fighter pilot's proverb to learn from everyone's mishaps as well as yours.

**13 See and avoid** — Clear your flight path, and anticipate where you'll encounter other military traffic, light aircraft, other airfields, terrain, weather and where your flight lead or wingman might hit you. I've found that the best scan pattern is to first clear your flight path and then clear in the direction of the nearest threat (a threat being either expected traffic or flight member, terrain, obstructions, weather or airspace, to name a few). Midair collisions, controlled flights into terrain and mishaps because of weather continue to haunt the fighter community when pilots channelize on something like the radar versus prioritizing their scan. Fly safe and check 6!

Before his retirement, Lt. Col. "Ned" Linch was the chief of flight safety for 12th Air Force at Davis-Monthan Air Force Base, Ariz. He has a passion for flight safety to include human factors and midair collision avoidance. He is a command pilot with more than 26 years of flying experience in the Air Force (F-16s and F-111s) and airlines (727s and MD-88s).



# F-35 PILOTS 'MEASURE UP'

## JOINT STRIKE FIGHTER AVIATORS MOVE CLOSER TO TRAINING

EGLIN AIR FORCE BASE, Fla. (AFNS) — Pilots here received measurements for the first F-35 Lightning II joint strike fighter equipment Feb. 25 to move closer to training in the military's newest fighter aircraft.

The new pilot equipment includes everything from underwear to cold-weather outer gear to anti-G garments.

RFD Beaufort, the Lockheed Martin sub-contractor making the new equipment, took controlled measurements down to the millimeter to ensure comfort, safety and the pilot's capability to complete the mission in any scenario. Some of the equipment used by the first F-35 pilots will be based on legacy gear found on previous fighter aircraft.

"The wing continues to work toward establishing the first (Department of Defense) training center for the F-35 joint strike fighter," said Marine Col. Arthur Tomassetti, of the 33rd Fighter Wing. "While measuring an individual for flight equipment might seem like a small step, every step brings us closer to being able to commence training at Eglin. The level of sophistication and technology on the new equipment is indicative of the advancement this new weapons system provides our Marines, Sailors and Airmen."

"A lot of the engineering has improved since the legacy equipment," said Maj. Eric Smith, the 58th Fighter Squadron assistant director of operations. "It is a great step forward with the next generation of aircraft."

Smith, who has flown A-10 Thunderbolt IIs and F-16 Fighting Falcons, said receiving measurements for the F-35 was much more detailed than previous experiences.

"This seems a lot more science based as they are taking a lot more measurements," said the 15-year Air Force veteran. "With legacy equipment, all they do is ask for height and weight."

Fitting the helmet, for example, is an entirely different process where laser scanners will map the pilots' head, said a VSI represen-



*After getting measured for his new flight suit, Navy Capt. Mike Saunders, 33rd Fighter Wing Operations Group deputy commander, tries on the new F-35 joint strike fighter helmet Feb. 25 at Eglin AFB, Fla. The helmet, made of carbon fiber and Kevlar, features cameras equipped with night vision and a display system capable of projecting information such as airspeed onto the pilot's visor.*

by Airman 1st Class Anthony Jennings

tative. VSI is the Lockheed Martin sub-contractor working on the F-35 helmet.

A normal F-35 pilot will wear flame retardant underwear, socks, a cooling garment, flight suit, anti-exposure suit trimmed to the individual pilot and waistcoats with pouches of drinking water, according to a RFD Beaufort representative. The complete gear with weapons will be about 30 pounds.

The extra efforts ensure a proper fit in case of an ejection by the pilot. Snagging pieces of clothing at top speeds during ejections could be detrimental to a pilot's life. Another safety measure is making every article of clothing flame resistant. The clothing is tested at 1,000 degrees Celsius for four seconds. Upgraded legacy flight suits now feature new arm restraints to prevent the pilot's arms from flaying in the event of an ejection, said Graham Robertson, a joint strike fighter trials and integrated logistics manager for RFD Beaufort.

"If this equipment had been around in the past, we would have had a lot of pilots saved," he added.

— Ashley M. Wright  
96th Air Base Wing Public Affairs

# AIRMAN'S VIGILANCE PREVENTS AIRCRAFT MISHAP

**BAGRAM AIRFIELD, Afghanistan (AFNS)** — Airmen from the 455th Expeditionary Aircraft Maintenance Squadron aborted an F-15E Strike Eagle mission minutes before takeoff March 12 here when a crew chief noticed an oddity with the flight controls of an aircraft.

Staff Sgt. Justin Wilson, a 494th Expeditionary Aircraft Maintenance Unit crew chief, was watching two taxiing F-15Es at about 11:30 p.m. local time and saw something peculiar as the second aircraft proceeded to the end of runway area to complete preflight preparations.

"We were watching them taxi, and I noticed when the second jet made its turn the left rudder was fully deflected to the right and the right rudder was perfectly straight after it made the turn," said Wilson, who is deployed from Royal Air Force Lakenheath, England. "I knew that the pilots were not actually making this happen, and something must be wrong."

Wilson, a native of Malone, N.Y., explained the rudders on the tail fins of the F-15E work in a simultaneous motion when the pilot depresses the pedal to adjust for in-flight stabilization. For them to not move in this manner could cause issues during takeoff and in flight.

After seeing the potential broken



by Master Sgt. Terry L. Blivins



by Staff Sgt. Richard Williams

**During a preflight aircraft inspection, Staff Sgt. Justin Wilson inspects the bomb rack of an F-15E Strike Eagle March 16 at Bagram Airfield, Afghanistan. Wilson is credited with potentially saving the lives of an F-15E crew, as well as the multi-million dollar aircraft, when he spotted a problem with the rudder of one of the fighters while it was taxiing for takeoff March 12.**

jet at the end of runway area receiving final preparations for takeoff, Wilson ran to the area to inform the crew of the problem and advise them to send the jet back to its parking area.

"As crew chiefs we are constantly looking for these malfunctions when we are going through our preflight inspections," Wilson said. "When we launch aircraft, we perform a built-in test with the aircraft's internal computer check to make sure everything is working as it should, and the crew completed that test."

Wilson explained after the jet was launched from its parking spot, the internal controls broke. The malfunction in this case did not occur until the aircraft made a turn on the ground.

"This incident could have definitely caused some problems for the aircraft and crew," said Master Sgt. Jason Bruder, the 494th section chief. "This just shows that our guys are out there to get the mission accomplished. Sergeant Wilson wasn't a part of that launch, (but) was paying attention and ... took action."

In doing so, the crew chief's vigilance potentially saved the lives of the pilots and millions of dollars in equipment.

— Staff Sgt. Richard Williams  
455th Air Expeditionary Wing  
Public Affairs

## CHANNELIZED ATTENTION LEADS TO PREDATOR CRASH



by Staff Sgt. Brian Ferguson

**An MQ-1B Predator crashed and was destroyed in the rugged mountainous terrain of Afghanistan Oct. 3. The mishap cost the Air Force \$3.8 million.**

**LANGLEY AIR FORCE BASE, Va. (ACCNS)** — Channelized attention caused the crash of an MQ-1B Predator Oct. 3 at a forward operating area in Afghanistan, according to an Air Combat Command Accident Investigation Board report released here March 29.

The Predator was flying a mission in support of Operation Enduring Freedom. The board president determined the pilots of both crews that took part in the hand-off of the aircraft's controls just before the mishap occurred had channelized attention.

Investigators described channelized attention as a tight focus

of attention that can lead to the exclusion of comprehensive situational information.

The Predator belonged to the 432nd Air Expeditionary Wing at Creech Air Force Base, Nev., and was flown by pilots from the 163rd Reconnaissance Wing at March Air Reserve Base, Calif.

The remotely piloted aircraft was carrying one Hellfire missile and crashed in rugged mountainous terrain in Afghanistan. It was destroyed on impact. The loss of the aircraft and its components is valued at approximately \$3.8 million.