

Air Education and Training Command's

TORCH

January/February 2008



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FROM THE DIRECTOR

By Col. **JOHN W. BLUMENTRITT**
AETC Director of Safety

'YOU DON'T KNOW WHAT YOU'VE GOT TILL IT'S GONE!'

When was the last time you saw highly motivated and satisfied Airmen kick back when times were grand and remark, "You know, things are great here; but to make things even better, we need more safety?" If your experiences are like mine, the answer to this question is never. Who can blame them? The Air Force safety culture, already the envy of industry, is easy to take for granted.

But it's dangerous to take this complacent attitude. Joni Mitchell, in her environmentally friendly song Big Yellow Taxi, laments that "you don't know what you've got till it's gone" just after paradise had been paved over with a parking lot. Why doesn't anyone get excited about the paradise before the parking lot, or a positive, mishap-free safety culture?

Researcher Frederick Herzberg might have the answer.

In his studies, Herzberg found that things associated with satisfaction are different than those pertaining to dissatisfaction. For example, recognition and increased responsibility, in the form of decorations and promotions, certainly fulfill high-level needs. However, Herzberg revealed that hygiene factors, such as a safe working environment, are conditions people simply expect. Also, he found that hygiene factors don't cause excitement or enthusiasm when present, but spawn dissatisfaction when absent.

Consider an experience when things were not so grand, such as when supervisors recklessly ran operations that made you uncomfortable. Armed with this mental perspective, you may recall comments like, "We're going to kill someone doing this."

When the safety culture is nourished, a gleeful silence exists. However, when the safety hygiene factor is neglected, people notice. Men and women are nervous as they operate in hazardous conditions. And, ultimately, lives are lost and equipment is wastefully destroyed. In workplaces turned dysfunctional and mishap-ridden, Airmen did not know what they had, in the form of a positive, mishap-free safety culture, until it was gone.

So work hard to nourish the culture of choice. If environmentalists like Joni Mitchell want a culture of paradise, they should proactively do what is necessary long before cement trucks are scheduled to arrive. If Airmen desire a positive, mishap-free environment, then nurturing a safety culture, versus reacting to a mishap, is key.

"When the safety culture is nourished, a gleeful silence exists. However, when the safety hygiene factor is neglected, people notice."

Research for this article comes from Herzberg, F. "One More Time: How Do You Motivate Employees?" *Harvard Business Review* (Jan-Feb 1968): 53-62.

NO RELIEF IN SIGHT

I read with interest your cover story titled “Stressed Out,” (November/December 2007 issue, page 8). The story was well written and brought up some good points. Specifically, the statement “With frequent and longer combat deployments, along with more work and fewer people, the military workforce faces increasing anxieties at home and abroad” caught my attention. I agree with that statement wholeheartedly. I don’t, however, believe referencing the Leader’s Guide for Managing Personnel in Distress is going to do much to curtail this growing problem.

Let’s face it. Things are going to get worse before they get better. Airmen are still going on more deployments than ever, and the Department of Defense is still cutting people and resources. I don’t see any relief in sight. Things look pretty bleak.

On second thought, I guess Air Force leaders better keep that guide at their fingertips. Because, with the way things are trending, we’re going to see a lot more stressed out folks.

Capt. “Buster” Adams
St. Louis



PARALLEL UNIVERSE

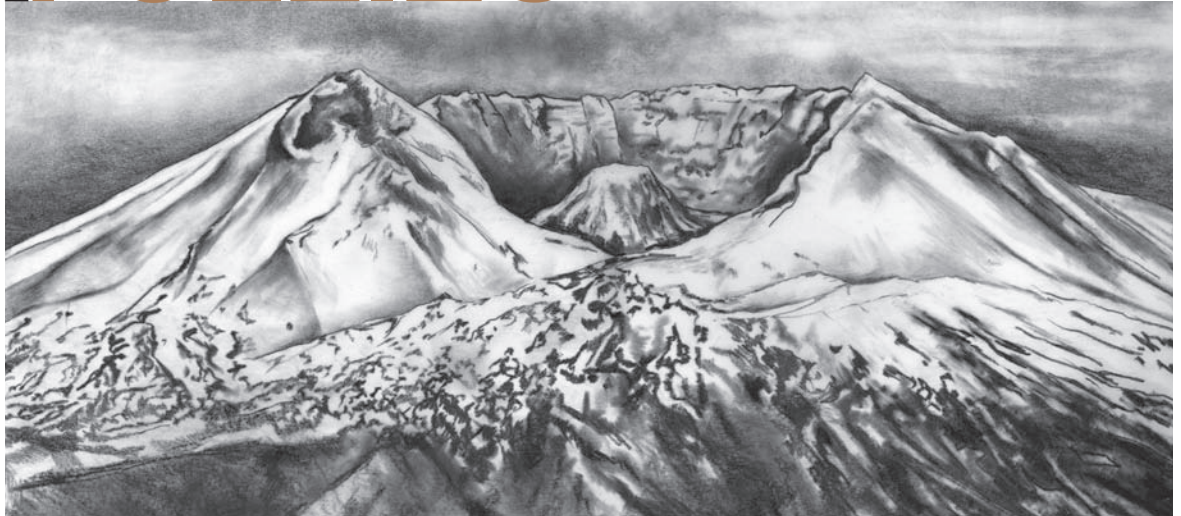
I liked the parallels you draw that show that mishaps rise, as stress rises (“As Stress Rises, So Do Mishaps,” November/December 2007 issue, page 10). Good info that people need to take to heart. I also liked how in the main story (“Stressed Out!”) you demonstrated that post traumatic stress can manifest itself in different forms and at different levels. Not everyone who has post traumatic stress is low- or non-functional. Many are high-functioning and are able to hide their symptoms. Great magazine — keep up the good work.

Violet Sanchez
Via e-mail

LETTERS TO TORCH

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

EXPERT FOLLIES



by Sammie W. King

Bravo on the story “Mayhem on the Mountain” in the November/December 2007 issue of Torch (page 16). Not only was the story well-written and entertaining, but it has a great message about being prepared and not getting complacent or over-confident even if you think you are an expert at the particular activity in which you are participating.

I appreciate David Haydter step-

ping forward and sharing his story. It’s stories like these, where many mistakes were made by the supposed experts, that make the rest of us do self checks. I know it made me reflect on the things that I do that I take for granted or get complacent on just because I’ve grown comfortable with my own expertise. Even the experts need to take time to do a little risk management.

Of course, I do have to say,

even though the mountain climbing foursome made some mistakes, you had to be impressed by their ability to call on their survival skills and dig out a snow cave that sheltered them from the blizzard and freezing temperatures throughout the night. That was at least one thing they did right, and I’m sure they have their Air Force training to thank.

Ollie Olson
Canada

TORCH CALENDAR



Your excellent calendars are a great safety tool for us — as is your magazine. We use your articles for our weekly safety meeting, and the calendars are a good reminder year round.

*Jeff Martin
Randolph Air Force Base, Texas*

I received my calendars. They are beautiful as usual, but they sure are small compared to what they used to be.

*L. Howard Parker
Keesler Air Force Base, Miss.*

I received my 2008 Torch Calendar. The pictures for each month are fantastic! And I love how you have reduced the size a little bit

— that makes it easier to find a place for it in my small cube. Everyone in my office had been admiring the photos on my calendar, so I ordered some extra copies for my co-workers in the T-38C Squadron. They also say thank you! Keep up the good work; we look forward to next year's calendar.

*Karen Shelley
Wright-Patterson Air Force Base, Ohio*

My son is an F-15 pilot stationed at Mountain Home Air Force Base, Idaho. Two years ago when he was in training at Vance AFB in Enid, Okla., we were visiting him and stayed on base at the Cherokee Inn. We were surprised when we got back to our room one evening and found a copy of the 2006 Torch Calendar. We were able to locate two other calendars, since my husband and I don't share very well and I knew my father would also want a copy for his office.

We miss our son dearly, and it is always nice to see the pictures of the planes and imagine the joy he must be experiencing in flying one of these amazing aircraft. I look forward to seeing this year's photography, and I'm sure I will especially get emotional as I display July's picture (of an F-15C). Thank you so very much for making this Air Force mom's day!

*Debbie Anderson
Lancaster, Calif.*

A LITTLE OFF BASE

In reference to the "Torch Talk" letter called "Fat Chance" in your November/December 2007 issue (page 2), I think the writer is a little off base. While size and strength certainly wouldn't hurt, those are not the only criteria that make good firemen ... or women. I'm sure that a lot of people wouldn't say 5-foot-3 Mugsy Bogues was a perfect fit for the National Basketball Association. Yet, he still carved a highly successful career in the "land of the giants" ... and made millions doing it, I might add. My point is he had other attributes besides height that proved to be valuable — heart, smarts, court vision and mad speed.

While Airman 1st Class Erin Metzger (from the story "The Fire Within," September/October issue, page 12), didn't have great size,

by Tech. Sgt. Matthew Hannen



Airman 1st Class Erin Metzger

she obviously had great desire, work ethic, courage and other intangibles that can't be measured in inches. If I'm trapped in a burning building, I'd want her to be one of the firefighters trying to rescue me because I can tell there is no quit in her.

She may not appear physically to be the prototypical firefighter, but she does have the qualities that describe another type of person ... hero.

Thanks for a great story on the firefighting school at Goodfellow Air Force Base, Texas, and for the glimpse at Airman Metzger's struggle and ultimate triumph in becoming an Air Force firefighter.

*Deb Phelps
Via e-mail*

GENETICS OF OBESITY

On your Web page there is an illustration that (is going to) work well on a scientific poster discussing the genetics of obesity ("A 'Growing' Problem," September/October 2007 issue, page 8). The poster will be displayed at the upcoming 10-year anniversary of Public Health Genomics at the Centers for Disease Control and Prevention.

*Lori Durand
Atlanta*

TORCH POSTER SERIES

Your Torch poster series will certainly catch the eyes of the student pilots coming through our housing office for specialized undergraduate pilot training. I will gladly take pride in displaying them.

*Jesus B. Valdez
Laughlin Air Force Base, Texas*



AIR FORCE NURSE HELPS SAVE LIVES IN 32-CAR PILEUP

RANDOLPH AIR FORCE BASE, Texas — It's a given that things happen when we least expect it. And so is the case with Maj. Randy McBay, an operating room nurse assigned to the Air Force's largest training hospital in the world, Wilford Hall Medical Center in San Antonio.

On the morning of Dec. 22, while returning from a two-month combat skills life-saving course at Ft. Riley, Kan., McBay found himself saving lives in the middle of a snow blizzard and a 32-car pileup in a rural area of Kansas.

The 28-year military veteran was making his way home to family in time for the holidays before departing for a one-year deployment to Afghanistan.

"At first, I felt so helpless," McBay said. "We were trapped in a bus with a birds-eye view of this horrible accident."

They watched in horror as people started getting hit by cars.

"We couldn't do anything but yell at people through a bus window to tell them to stay in their cars," McBay said. "We were banging on the windows."

But all of their yelling and banging proved for naught. The people simply couldn't hear them.

"Watching them get out of their vehicles and get hit ... it was a sickening feeling," the major said. "We felt so helpless, and there was nothing we

could do at the time but wait for the cars to stop crashing."

McBay was on a bus with other Airmen returning from training at Ft. Riley when the incident occurred.

According to the Topeka Capital Journal report, one person died.

During whiteout conditions, a car slammed into the back end of an 18-wheeler, also hitting the bus in which McBay and the other Airmen were traveling. The accident started a chain reaction, and soon there was a 32-car pileup on Interstate 70 between Topeka and Manhattan.

A 40-mile stretch on I-70 was closed, according to Kansas Highway Patrol authorities. Shelters were opened near the interstate to assist stranded motorists.

"I saw one guy get out of his car. (Then) another car came plowing into him, and he flew up in the sky," the major said. "It was like watching a movie."

As soon as it appeared "safe," McBay led about five other Airmen off the bus to help search the cars for survivors.

"We carried passengers back to the bus to keep them warm and provide medical assistance using the bus's first-aid kit and anything we could find on hand," he said. "We worked as quickly as we could to help save lives until the paramedics and rescue squads could arrive. For many of the younger Airmen, it was their first real-world mass casualty."

Most of the Airmen didn't even have coats on because they hadn't intended to get out of the bus until arriving at the airport, McBay said.

"All of our heavy clothing gear was packed in the storage compartment of the bus, but we weathered the storm with what we had," he said.

There were three nurses and three medics on the bus. All the other Airmen were from various career fields.

The bus finally made its way to a local shelter, but McBay remained behind about eight hours with local authorities to assist with the injured and clean-up.

He returned home to his family just in time for Christmas on Dec. 23.

"I'm very thankful we were there to help out," McBay said. "It could have been a lot worse."

— Linda Frost
59th Medical Wing
Public Affairs



Kansas rescue crews and Air Force Maj. Randy McBay worked more than eight hours Dec. 22 to save lives and clean-up during a 32-car pileup that occurred in a snow blizzard near Topeka, Kan.

by Maj. Randy McBay

SNOWMOBILER 'CLIFFHANGER'

An Air National Guard captain from Helotes, Texas, and his 10-year-old son took a winter trip to Colorado to enjoy the Rocky Mountains.

It was the first time the boy had ever laid his eyes on snow. Truth be known, it was only the second time his dad had seen it. Exhilarated by this winter wonderland, the duo decided to rent a snowmobile to get the full white powder experience.

With a short training session and safety briefing, father and son were soon cruising atop the snow. Since it was their first time on a snowmobile, they were a bit cautious at first and proceeded slowly. But as their confidence with the contraption grew, their speed increased, as did their adventuresome spirit.

Soon they wandered off the beaten path — a strict no-no if they'd adhered to their safety briefing.

They dodged in and out of trees, and more powder kicked up as they blazed new trails. But the fun ended almost as quickly as it had begun.

Unfamiliar with the area and no longer following the marked trail, dad and son drove off a cliff.

They fell 10 feet, and had the good fortune of hitting a small ledge that jutted out from the side of the cliff. They landed three feet from the next drop-off — 75 feet straight down!

Thick snowdrifts had helped cushion their fall, but they didn't escape unscathed. Battered, bruised and embarrassed, they found a spot where they could angle back up the mountain on foot. A long hike later, they made it back to the rental shop.

Some rental shop employees retrieved the snowmobile, which cost the dad nearly \$3,000 in repairs. It proved to be an expensive lesson in risk management, but at least they lived to tell the tale.

— Tim Barela



by Tech. Sgt. Matthew Hammen

A father and son drove their snowmobile off a cliff when their inexperience on the machine and unfamiliarity with the surrounding terrain combined to turn their winter vacation into a potential disaster.

LACKLAND TEAMS UP WITH TEXAS DEPARTMENT OF TRANSPORTATION TO PREVENT DRUNK DRIVING

LACKLAND AIR FORCE BASE, Texas — A skydiving Santa dropped into Lackland AFB Dec. 4 to help launch the state's annual drunken driving prevention campaign.

The Air Force's commitment to safety and taking care of its Airmen made Lackland a perfect backdrop for the start of the Texas Department of Transportation's four-week awareness rally, according to Brig. Gen. Darrell Jones, 37th Training Wing commander.

"In the Air Force, we have a concept we practice every day — the wingman concept," the general said. "We look out for one another."

The wingman philosophy, with its roots in the aviation field, challenges all military and civilian members to take care of one another and ensure they are always doing the right thing.

In 2006, Texas had 1,677 people die in alcohol-related accidents, according to the Department of Public Safety. So officials hope that the Air Force's wingman philosophy not only pays dividends in the military, but rubs off on the civilian community as well.

by Alan Boedeker



"Our intention is to ... encourage drivers to be sober," said Travis Hall, senior trooper with the Texas Department of Public Safety.

According to Col. John W. Blumentritt, Air Education and Training Command director of safety, that goal makes their partnership a natural fit.

"Air Force installations already have some of the most sober roads in Texas via a powerful safety culture," the colonel said. "We need to help take that attitude to the streets off-base, as well."

— April Blumer
37th Training Wing Public Affairs

Santa Claus skydives onto the 37th Training Wing parade field at Lackland AFB, Texas, Dec. 4 to help the Texas Department of Transportation kick off its annual drunken driving prevention campaign.

CELL PHONES BLAMED IN TRAIN DEATHS, INJURIES



Cell phones have long been blamed for distracting drivers and leading to vehicle mishaps. Now, according to recent reports from the Associated Press, CNN and AOL News, they also are linked to people getting hit by trains.

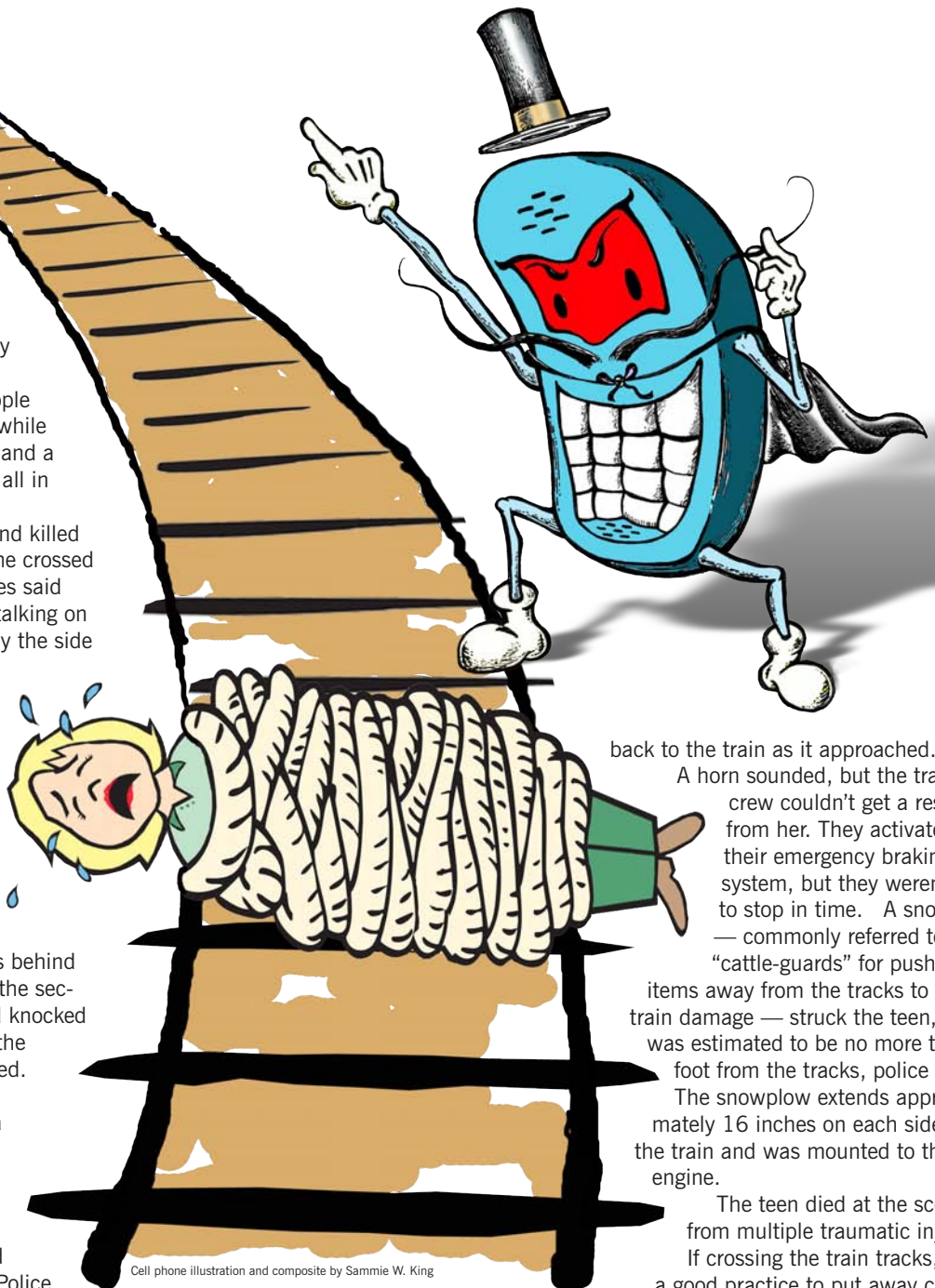
According to reports, two people were struck and killed by trains while talking or texting on cell phones and a third sustained serious injury — all in separate incidents.

In November, a train struck and killed a man in Berkeley, Calif., while he crossed the train tracks on foot. Witnesses said that the man was distracted by talking on the cell phone. The man stood by the side of two sets of the tracks waiting for one train to cross, then immediately stepped out onto the tracks and was struck by a second train passing in the opposite direction.

This was eerily similar to an incident in Cincinnati, Ohio, that occurred in August. There, a teen was texting on his cell phone and did the same thing — crossed the tracks behind one train only to step in front of the second. He was thrown 50 feet and knocked unconscious. He was rushed to the hospital, and, fortunately, survived.

In another incident in March 2006, a train struck and killed a deaf beauty contest winner who was walking along the railroad tracks from her Austin, Texas, home to her mother's workplace, text-messaging family and friends, according to the Austin Police Department.

The 18-year-old was walking northbound along the railroad ties, with her



Cell phone illustration and composite by Sammie W. King

back to the train as it approached.

A horn sounded, but the train crew couldn't get a response from her. They activated their emergency braking system, but they weren't able to stop in time. A snowplow — commonly referred to as "cattle-guards" for pushing items away from the tracks to avoid train damage — struck the teen, who was estimated to be no more than a foot from the tracks, police said. The snowplow extends approximately 16 inches on each side from the train and was mounted to the front engine.

The teen died at the scene from multiple traumatic injuries. If crossing the train tracks, it's a good practice to put away cell phones, iPods or anything else that can distract you from making it safely across the tracks.

IMMOBILITY, INJURY PLACE THOUSANDS AT RISK FOR 'ECONOMY CLASS SYNDROME'

FALLS CHURCH, Va. — A difficult-to-detect ailment kills 200,000 people in the United States each year — more than AIDS and breast cancer combined, according to Tricare officials. And if you take long journeys in planes, trains or automobiles, you could be at risk.

Yet few have heard of Deep Vein Thrombosis, which is a blood clot that forms in a vein deep in the body, according to the National Heart, Lung and Blood Institute. Most deep vein blood clots occur in the lower leg or thigh and often result from long periods of immobility, which can cause sluggish or slowed blood flow.

DVT has been dubbed the “economy class syndrome” because of its association with long flights in cramped conditions. However, it also can strike first class passengers, and has been known to afflict travelers going long distances in cars, trucks, buses and trains. Additionally, it can affect injured persons who are immobile for long periods of time.

Often the symptoms for DVT are subtle and can sometimes be mistaken for muscle strains, skin rashes or inflammation in the veins. Left untreated, DVT may cause severe or fatal complications such as pulmonary embolism or blood clotting in the lungs.

Immobility coupled with genetics contributed to NBC journalist David Bloom’s death in 2003 at the age of 39. While embedded with the Army’s Third Infantry Division in Iraq, the veteran reporter and the soldiers whose stories he told spent long periods of time riding in a cramped tank with little ability to move.

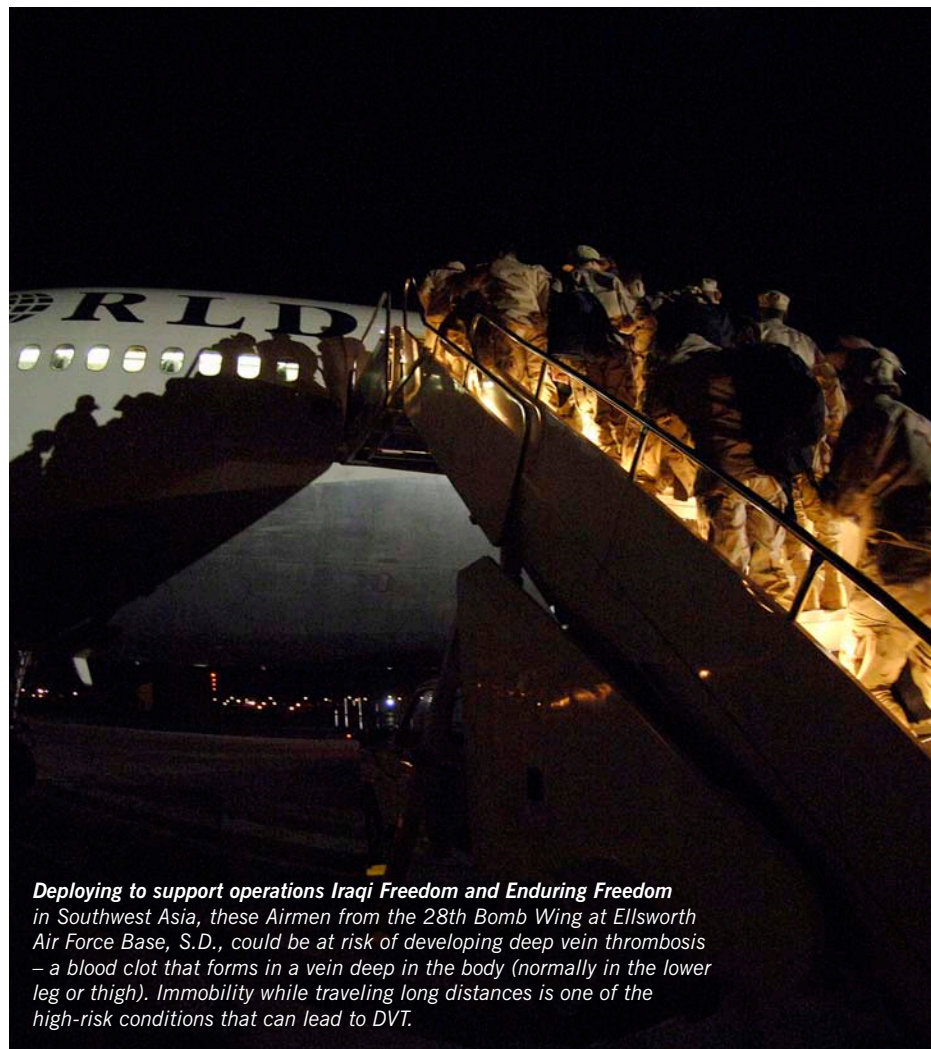
“Two nights before his death, David called on a satellite phone,” said his wife Melanie Bloom. “He told me he was having some pain in his legs, but that it wasn’t anything to worry about.”

The seemingly insignificant pain was in fact a warning sign.

Anyone may develop DVT, but there are conditions that place some at higher risk (see “High-Risk Conditions”). Nearly half of all people diagnosed with DVT have no symptoms; however, there are some warning signs that require immediate attention (see “Warning Signs”). Contact your healthcare provider if you any symptoms or warning signs.

For more information on DVT, visit the National Heart, Lung and Blood Institute’s Web site at www.nhlbi.nih.gov/health/dci/Diseases/Dvt/DVT_Prevention.html.

— Gail Cureton
Tricare Management Activity



Deploying to support operations Iraqi Freedom and Enduring Freedom in Southwest Asia, these Airmen from the 28th Bomb Wing at Ellsworth Air Force Base, S.D., could be at risk of developing deep vein thrombosis — a blood clot that forms in a vein deep in the body (normally in the lower leg or thigh). Immobility while traveling long distances is one of the high-risk conditions that can lead to DVT.

by Staff Sgt. Michael B. Keller

DEEP VEIN THROMBOSIS HIGH-RISK CONDITIONS

- ◆ Immobility or poor mobility
- ◆ Surgery that lasts more than 30 minutes
- ◆ Health conditions that cause the blood to clot more easily than normal
- ◆ Contraceptive pills and hormone replacement therapy
- ◆ Cancer or heart failure
- ◆ Pregnancy (about 1 in 1,000 pregnant women have DVT)
- ◆ Obesity

WARNING SIGNS

- ◆ Pain, redness, tenderness or sudden swelling in one leg
- ◆ Skin that is warm to the touch in one leg
- ◆ Unexplained shortness of breath
- ◆ Chest pain or rapid heart rate
- ◆ Coughing up blood

PREVENTION

- ◆ Get out of bed and move around as soon as possible after surgery or illness to avoid the chance of developing a blood clot.
- ◆ On long trips, walk up and down the aisles of the bus, train or airplane.
- ◆ If traveling by car, stop about every hour and walk around.
- ◆ While immobile, move your legs and flex and stretch your feet to encourage blood flow in your calves.
- ◆ Wear loose and comfortable clothing.
- ◆ Drink plenty of fluids (but avoid alcohol).
- ◆ See your doctor for regular checkups.

— National Heart, Lung
and Blood Institute

Flesh Eater

Airman says manual, training saved his life from deadly bacterial infection

By Staff Sgt. CASSANDRA LOCKE

Deployed to Southwest Asia to support the war on terrorism, Staff Sgt. Stephen Jones went to bed one night not feeling quite right. He felt tingling in his fingers and toes and had a high fever and chills.

Two years later, Jones, a fuels journeyman from Cannon Air Force Base, N.M., still credits reading his Airman's Manual and paying attention at his pre-deployment self-aid and buddy care training as saving his life. He said the training made him realize that the symptoms he was experiencing weren't anything to mess around with; they were serious.

He sought medical attention immediately.

What Jones thought to be a strained leg muscle turned out to be a flesh-eating bacterial infection that could have killed him had he not sought immediate treatment. Doctors treated the sergeant for necrotizing fasciitis (flesh-eating bacteria).

"If he would have come two or three days later, he may not have survived," said Maj. (Dr.) Crystine Lee, a general surgeon from Travis AFB, Calif., who was assigned to the 379th Expeditionary Medical Group at the time.

Had Jones waited even another 24 hours for treatment, they may have had to amputate his leg, the doctor said.

"I knew something was wrong," Jones said. "I knew I had to take action even though I felt normal five minutes before."

At the clinic, the staff found his white blood cell count to be nearly three times higher than normal. After examining his leg, the doctor diagnosed the problem: an infected blood clot in the sergeant's leg.

Lee and her team didn't hesitate. They prepped and then performed surgery on Jones, removing the bacterially infected tissue.

"Our role ... is to keep our warfighters fit to fight, which includes everything from preventive measures to intervention for life threatening problems," the doctor said. (Sergeant Jones) was being poisoned, so we had to act fast."

Lee said, while rare, this kind of infection can start from a scratch, bug bite or a cut. It most commonly occurs when streptococcus bacteria enters from a wound.

"We're not sure why Sergeant Jones developed his infection since he had no point of entry," Lee said. "His case took everyone by surprise."

According to the doctor, Jones may have been unlucky to be one of the rare cases to get the flesh-eating bacteria, but

After rushing him into surgery, Maj. (Dr.) Crystine Lee and her team remove bacterially infected tissue from Staff Sgt. Stephen Jones' leg. The sergeant developed necrotizing fasciitis, also known as flesh-eating bacteria, while deployed to Southwest Asia. This type of infection is fatal if not treated immediately.



by 1st Lt. Sara Lanin

by Staff Sgt. Cassandra Locke




Left with nearly a foot-long scar along his shinbone, Staff Sgt. Stephen Jones knows he was lucky to survive a flesh-eating bacteria in his leg. Maj. (Dr.) Crystine Lee checks the status of Jones' leg as he recovers in the hospital after surgery. Jones says his pre-deployment training played a major role in his surviving the deadly bacterial infection.

he's lucky to have survived the deadly infection no worse for wear — except for the nearly foot-long scar along his shinbone.

In addition to being thankful for the medical experts that treated him, Jones credits “all the training briefings” for saving his life. After his ordeal, he stresses to anyone who will listen

that all Airmen should take self-aid and buddy care training seriously and review their Airman's Manual regularly.

He did, and he survived. 

Sergeant Locke is assigned to the 43rd Air Wing Public Affairs at Pope AFB, N.C. (AFPJ)

Symptoms of a Flesh Eater: Necrotizing Fasciitis

- Trauma of some type (however slight) will probably have occurred (scratch, cut, surgery, or even a pinprick or bruise).
- Victim begins to feel an annoying discomfort in the general region of the trauma.
- The pain described gets worse; the area gets more tender. The pain one feels becomes out of proportion to the injury.
- Flu-like symptoms occur, such as vomiting, diarrhea, dehydration, general malaise, weakness, muscle pain and fever.
- Tissue is swollen, and there might be redness noted. The area will feel hot to the touch and very painful.
- Urination becomes less frequent (as the system dehydrates).
- Blood pressure drops severely, and heartbeat is rapid.
- A sunburn type rash might appear over the entire body from toxins released by the bacteria.
- Large, dark boil-like blister(s) might form in the affected area.
- Toxic shock can ensue as the body's organs shut down.

— National Necrotizing Fasciitis Foundation

LAST NAME

FIRST

MI

by Tech. Sgt. Matthew Hansen

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TEST

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Winter fun in The Sun



Winter is here and that means it is time to pull out the sweaters ... and the sunscreen! Yes, sunscreen. Outdoor fun activities such as skiing, ice skating and sledding can be fun, but it is important to protect your skin from the bitter cold, heavy winds and winter sun.

Bundle up, and don't forget the sunscreen!

A 20-year-old Airman recently enjoyed a day of snow skiing. His jacket, hat and gloves kept him warm, but his face looked like a ripened tomato after baking in the sun for eight hours. His damaged skin later peeled like an onion. In another instance, a mother of a newborn had wrapped up her infant daughter to keep her warm while her other two kids played in the snow. A small part of exposed flesh on the baby's nose, cheeks and forehead burned so badly from the sun that it blistered the skin.

When people think about winter, many are so busy protecting themselves from the cold that they forget to protect themselves from the sun. But even if there is snow on the ground, skin can get burnt and damaged by the sun. The sun easily reflects off the snow, and it can bounce up to 80 percent of the sun's ultraviolet, or UV, rays back up at a person.

The sun does not necessarily have to be hot for it to be damaging, either.

Sunburn is the damaging effect on the skin of the UV rays contained in sunlight. Too much exposure to UV light causes the skin to overheat and become red. The painful condition may later peel or blister. Overexposure or prolonged sun exposure is a known cause of premature aging of the skin and skin cancer.

Windburn is skin irritation that occurs when skin is exposed to harsh winds and the top layer of oil is stripped from the skin. The skin swells up and turns red. Windburn is commonly mistaken for sunburn.

Frostbite is the damage that occurs when the skin and/or tissue under the skin freezes from exposure to extreme cold. Most often, frostbite affects the toes, fingers, earlobes, chin and tip of the nose. Affected areas are initially painful, followed by swelling, discoloration and numbness. In serious cases, permanent damage can occur to tendons, muscles, nerves or bone.

It is important to understand how painful and dangerous skin conditions can be avoided during the winter season (see accompanying prevention tips). Enjoy the winter season, but be sure to take care of your skin. ❄️

Information for this article was provided by the Tricare Management Activity out of Falls Church, Va., with contributions by the Torch editorial staff.

To Prevent Sunburn and/or Windburn

- ☀️ Cover up with a long-sleeved jacket, hat and gloves.
- ☀️ Wear wraparound sunglasses or goggles that offer 100 percent UV protection.
- ☀️ Pay close attention to the underside of the chin and ears.
- ☀️ Wear sun block such as zinc oxide on exposed and sun-sensitive areas. If outdoors for long periods, you may need to apply more than once.
- ☀️ Wear items like ski masks, which will cover most of the skin, leaving very little exposed to the wind and sun.

— Tricare Management Activity

To Prevent Frostbite

- ❄️ Wear warm clothing and dress in layers, including sweaters, thermal underclothes and wool socks.
- ❄️ Stay dry. Wet clothes increase the chance of heat loss.
- ❄️ Avoid drinking alcohol before or during exposure to cold weather; alcohol may prevent you from realizing that your body is becoming too cold.
- ❄️ Avoid smoking cigarettes, which can affect your blood vessels, increasing your risk of frostbite.
- ❄️ At the first sign of redness or pain in your skin, which may indicate frostbite is developing, get out of the cold or protect exposed skin.

— Tricare Management Activity



A well-intentioned mom bundled up her baby to protect her from the cold, but the exposed flesh on the infant's nose, cheeks and forehead burned so badly that it blistered the skin.

File photos



Avalanche Angels

Airmen rescue injured hiker from treacherous mountain snow slide

By **TIM BARELA**

Photos by Tech. Sgt. **MATTHEW HANNEN**

Staff Sgt. Jason Weiss smiled as he thought of Holly's long blonde hair, big blue eyes and farm girl charm. A year ago he'd asked her to marry him. He remembered proposing in the traditional fashion – on one knee, begging and pleading. Today, Dec. 4, they were to be wed in a small ceremony in Spokane, Wash.

Only one problem. ... He wasn't going to be there.

His eyes narrowed and his smile disappeared as he threw open the door of the hovering UH-1N Huey. A frigid cocktail of wind, rain and snow sucked the warmth out of the helicopter as if Jack Frost himself had just stepped on board. Weiss peered at the vast snowy landscape of the tree-lined mountains below. A man was down there somewhere ... injured and alone.

Air Force independent-duty medical technicians from the 36th Rescue Flight at Fairchild AFB, Wash., often get dropped into austere locations when performing their search and rescue mission.



Getting lowered via the forest penetrator, Staff Sgt. Jason Weiss, an independent-duty medical technician, can take his life-saving skills to even the most remote areas.



Weiss had good reason for missing his wedding. As an independent-duty medical technician, he served as part of a four-member search and rescue crew from the 36th Rescue Flight out of Fairchild Air Force Base, Wash., that saved 38-year-old Mark Thompson near Snow Lake north of Snoqualmie Pass (45 minutes from Seattle) Dec. 4.

Thompson, of Bellevue, Wash., had been stranded in the mountains for more than two days after getting swept up in an avalanche that fractured the tibia and fibula in his lower left leg Dec. 2. His wife, 33-year-old Stacia Thompson (also of Bellevue), and his best friend, 38-year-old Craig Stanton of Everett, Wash., were buried in the same avalanche and died of asphyxiation, according to the King County Medical Examiner.

According to Sgt. John Urquhart, a spokesman for the King County Sheriff's Department, the trio had been hiking in the Snow Lake area when the avalanche struck without warning.

"A combination of new snow followed by rain makes it real treacherous here," Urquhart said.

He said the hikers had been in the mountains for three days and were on their return trip when the weather changed and caused the massive slide.

"They were coming downhill with Thompson in the lead," Urquhart said. "Stanton followed about 20 feet behind, with Thompson's wife still another 20 feet back."

Thompson told the Sheriff's Department that he heard a scream and turned to see the tons of snow swallow up his wife and best friend. An experienced hiker, Thompson was able to "swim" out of the avalanche, but not before he sustained a broken leg.

"He told us he searched for his wife and his friend, but couldn't find them," Urquhart said.

Recipe for Disaster

Snoqualmie Pass became a deathtrap under the following conditions:

- ⊗ Fresh layer of snow fell over old snow.
- ⊗ The weather had been nice, which attracted hikers and other adventure seekers.
- ⊗ A torrential downpour interrupted the nice weather.
- ⊗ The rainwater caused the new layer of snow to slip over the old one, and the snow came tumbling down the mountainside in a deadly avalanche.

Hampered by the shattered limb and the onset of hypothermia, Thompson had to give up the frantic search and go into survival mode. When the trio didn't return from their excursion on schedule, Thompson's father alerted authorities.

Enter Weiss and the team from Fairchild, which also included Capt. Amanda Somerville, the aircraft commander; Capt. Evan Roth, the co-pilot; and Tech. Sgt. Devin Fisher, the flight engineer.

When Weiss got pegged for the mission and called Holly, he said she didn't get angry and never complained.

"We've been dating for two years, so she's used to it; I'm in one of the most deployed career fields in the Air Force," said Weiss, who started as an emergency medical technician in Los Angeles, where he grew up. "She said, 'Be careful. Hurry home.' ... That's one good woman."

Fisher said the mission proved challenging from the get-go.

"Initially, we were supposed to be picking up flood victims off of rooftops," the Fort Plain, N.Y., native said. "So we configured the aircraft for a mass rescue. We took half the gas we normally would because with less gas, the Huey can carry more people — it's a weight and power issue. We wanted to be able to fit as many people in the aircraft as possible."

When the mission changed, fuel became a concern.

For the pilots, the gas shortage wasn't their only worry.

"We were flying in some bad weather with rain, snow, fog and poor visibility," said Somerville, who hails from Chicago. "The poor weather caused strong turbulence, which can make it feel like you're losing control of the aircraft. At times it was like someone was shoving us from side-to-side. It can get scary."

Roth, who navigated much of the flight, agreed.

"When flying in a valley, winds get stronger because they are squeezed through a smaller area — kind of like putting your thumb on the end of a hose to create more water pressure," the Marlton, N.J., native said. "It's not easy to fly when you're getting thrown around a bit. But Captain Somerville did a great job."

At first, civilian ground search and rescue forces told the Huey crew that they would be able to pick up an injured survivor and two bodies in a large parking lot near the base of the mountain. So Somerville landed at the extraction point, and Weiss and Fisher exited the Huey.

They returned empty handed.

"The ground crews hadn't been able to get to the victims," Fisher said. "Now instead of just a simple pick up, we were

on a full-fledged search and rescue mission. We had no radio contact with the survivor, no coordinates ... just a map with a little dot on it and maybe 20 to 30 minutes of gas left."

With Fisher and Weiss hanging out of the doors of the aircraft trying to spot the survivor, Somerville and Roth made several passes. Just when it looked like they wouldn't find the victim before the

"Now instead of just a simple pick up, we were on a full-fledged search and rescue mission. We had no radio contact with the survivor, no coordinates ... just a map with a little dot on it and maybe 20 to 30 minutes of gas left."

need to refuel became too great, Roth and Fisher spotted the injured hiker.

"Visibility was so poor that I couldn't see a thing out of my side of the Huey," Weiss said. "But those guys can spot a gumball at 200 yards."

Fisher dropped a smoke grenade to mark the area, but the avalanche snow swallowed the grenade up, making it useless. They found a hole in the trees and lowered Weiss to the ground, roughly 80 yards from the victim.

"When I stepped off of the rescue hoist, I sank up to my chest in the snow," the 5-foot-10, 210-pound medic said. "I had to crab crawl for about 40 yards so I wouldn't sink in the snow."

The last 40 yards he was able to walk in about waist-deep snow.

"When I got to the victim, he was hungry, dehydrated and on the verge of being hypothermic," Weiss said. "His leg was badly broken."

Weiss said he hated to move him without a stretcher in fear of further damaging the leg. But before he had left the helicopter, Somerville had warned him that there was no time to waste. Low on gas and with the weather worsening, the Huey crew could be forced to leave them.

"I asked him how much he weighed, and he told me 176 pounds," the Airman said. "So I put him over my shoulders in a fireman's carry."

Nobody would call the burly Airman a slouch. Back at Fairchild, Weiss and his teammates go through a rigorous physical training regimen eight times per week that includes swimming, sprints, distance running, pull-ups, sit-ups, pushups, flutter kicks, weight training and more. To relax he plays rugby on a local team. Nevertheless, trudging 40 yards through waist-deep snow with a full grown man on his shoulders pushed him to his limits.

"My legs burned, my lungs hurt, and I was slowing down," Weiss said.

So the medical technician laid Thompson on the ground and tied his legs together with the broken one on top. He then pulled up the hood on the man's



Resistance training? Much like in this training scenario, Staff Sgt. Jason Weiss had to carry a 176-pound man through waist-deep snow during a December rescue.



Riding the rescue hoist back to the UH-1N Huey helicopter, Staff Sgt. Weiss secures a "patient" during rescue training. He had to do a similar extraction with an avalanche victim recently.

jacket, grabbed his arms and dragged him across the snow like a sled. After another 40 yards, Weiss reached the extraction point out of breath. He packed snow around Thompson to stabilize him and to elevate his broken leg.

On his hands and knees, huffing and puffing, with steam rising from his sweaty brow, Weiss's head and shoulders suddenly slumped.

"Damn!" he whispered under his breath as he peered into the sky.

"I heard the whir of the Huey's engines, and it was a very sad sound," Weiss said.

He explained that when a Huey is approaching, it makes a distinctive "whop, whop, whop" sound. But when it is going away, it makes a whirring noise.

"Even though I was disappointed, I remember thinking, 'They made the right choice to leave us behind.' Hell, by this time, we were in a full-blown whiteout blizzard, and they were low on gas," he said. "You never want to put the helicopter at risk and endanger the lives of the crew. It just makes the situation worse."

Weiss began to survey the terrain to figure out where the best spot would be to build a snow cave shelter. He'd also need to get a fire going. Who knew when the crew would be able to return? He'd

probably be spending his wedding night stranded on the mountain in a blizzard.

Then, suddenly ... "Whop, whop, whop, whop ..."

"That was like music to my ears," Weiss said with a chuckle.

Inside the Huey, Somerville had decided to make one more pass over the

"I remember thinking, 'They made the right choice to leave us behind.' Hell, by this time, we were in a full-blown whiteout blizzard, and they were low on gas."

extraction point. After that, they'd be forced to leave the area to refuel.

"We spotted Jason and his patient, which was a big relief," Somerville said. "At that point, I handed the controls over to Captain Roth, because he had better visibility and better references into the extraction point."

Roth still needed the flight engineer to talk him into the tight spot.

"Sergeant Fisher hung out the cabin

door to make sure we could get as low as possible without hitting anything," the co-pilot said.

While Roth held the aircraft in a hover at 180 feet, just above the trees, Fisher lowered the rescue hoist. As he was lowering the hoist, he lost communication with the pilots.

One of the aircraft's generators had gone out!

"Water had gotten into the nose compartment of the aircraft," Somerville said. "It caused the generator to go out, which was a concern; because if one shorted out from the water, the other was at risk. If both generators went out, we would lose our instrument readings. That wouldn't be a disaster in clear weather, but you need your instruments to safely fly out of the fog and clouds."

As it was, the clouds had gotten so low that the rotor blades sliced through one as if spinning cotton candy.

Fortunately, the other generator never failed, and communication was restored.

"I was lucky enough to set the forest penetrator (hoist) right next to Jason's feet," Fisher said.

Normally, Weiss would request a litter, and the crew would hoist them out one at a time. But time was a luxury they did not have. He flipped the paddles down on the forest penetrator and climbed aboard. He then secured Thompson for the ride up to the Huey and did his best to protect his patient from the stinging raindrops, which were propelled by the rotor wash at some 110 mph.

Once in the helicopter, Weiss tended to the victim, while Fisher helped guide the helicopter out. Roth turned the aircraft back over to Somerville, as she had better visual references to take them safely out of the area.

Weiss said Thompson's core temperature had lowered to 93.5 degrees. But by the time they airlifted him to Harborview Medical Center in Seattle, he was nearly re-warmed at 97.8 degrees.

After handing Thompson off to the hospital's emergency medical staff for surgery, Weiss returned to the Huey. The crew then headed to Boeing International to refuel, and from there, went to McChord AFB, Wash., where they stayed on alert for three more days.

On Dec. 7, Weiss and Holly Sweeney finally exchanged vows at a small gathering of family and friends in Spokane. Holly wasn't bitter about the delay.

"He does such amazing things," she said admiringly. "I have to share him." ✿

Airman 1st Class Kali L. Gradishar of the 92nd Air Refueling Wing Public Affairs at Fairchild AFB, Wash., contributed to this article.

Mountain Rescue

Helicopter crew recovers stranded Montana climber

FAIRCHILD AIR FORCE BASE, Wash. (AFPN) — Members of the 36th Rescue Flight here rescued a stranded 20-year-old hiker Nov. 11 about 20 miles south of Missoula, Mont.

Local emergency responders were unable to rescue the man because of the hazardous terrain; so a 36th RQF UH-1N Huey flew to the site and lowered an independent-duty medical technician 70 feet via hoist to the stranded hiker.

The man had fallen about 1,000 feet down an avalanche chute, a down-slope hillside pathway along which avalanches repeatedly fall. The accident victim came to rest at an elevation of 7,000 feet. The hiker landed on a rock outcropping that allowed him roughly six feet of moving space, from which he called for help using his cell phone.

“When I got to the patient, he was alert and oriented — shivering and visibly cold — but he was not severely hypothermic,” said Tech. Sgt. Jason Oldenberg, a 36th RQF independent-duty medical technician. “He was moderately hypothermic, but was able to function and ride the forest penetrator up (to the helicopter).”

Once determining the man needed no emergency treatment and was safe for transport, he was hoisted into the helicopter and flown to the rescue team’s command post. Instead of both men taking the penetrator up together, Oldenberg decided that it would be safer to go one at a time. Because of the high winds, this allowed him to stabilize the penetrator so that it would not swing out of control as they hoisted the hiker up to the helicopter.

Along with Oldenberg, the rescue crew included Capt. Kevin Burns, the aircraft commander; Capt. Christopher Johnson, the co-pilot; and Staff Sgt. J.D. Hill, the flight engineer. The rescue was the 620th for the rescue flight.

Oldenberg said the patient told him that he was caught in a blizzard before he slid down the hill. The hiker was not equipped for survival. He had a headlamp and a daypack, but no survival gear. Fortunately, the headlamp turned out to be key in signaling the crew to his exact position.

“We got the call at 11:45 that evening,” Oldenberg said. “When I talked to the patient, he said that he had been out in the elements for 15 hours. I would say that he had approximately two to three hours before going into severe hypothermia. He would have been in a bad situation.”

The training that the rescue crews go through ensures that when the time comes, they perform without hesitation and are able to adjust when things don’t go exactly as planned.

“I think our training was paramount,” Oldenberg said. “I wouldn’t have had the confidence to accomplish the mission in those conditions without the training.”

“I’m extremely proud of the rapid response and the great coordination between us, the Air Force Rescue Center and the ground crew,” said Maj. Curtis Wichers, the 36th RQF commander. “The crew displayed great competence in their abilities to get into that tight spot and safely extract the hiker.”

— *Tech. Sgt. Larry W. Carpenter Jr.*
92nd Air Refueling Wing Public Affairs



Strapping on his medical pack, independent-duty medical technician Tech. Sgt. Jason Oldenberg readies to begin search and rescue training at a remote location.



Armed with 250-foot rescue hoists, the 36th Rescue Flights UH-1 Huey helicopters are ideal vehicles to extract injured and/or stranded victims off of rooftops, mountaintops or just about anywhere else you can think of because they don't have to land.

NEW BLOOD

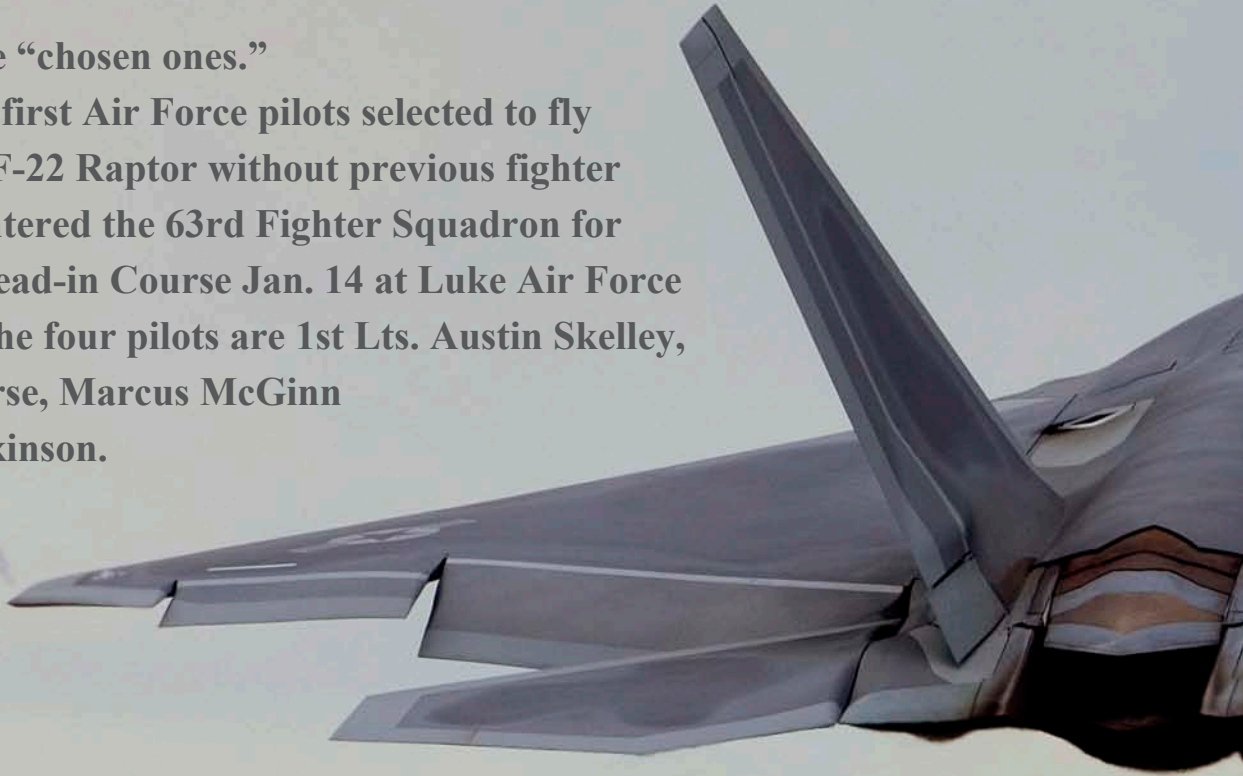
First pilots with no previous fighter experience selected to fly Raptors

By 2nd Lt. **BRYAN BOUCHARD**

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

M eet the “chosen ones.”

The first Air Force pilots selected to fly the F-22 Raptor without previous fighter experience entered the 63rd Fighter Squadron for the Raptor Lead-in Course Jan. 14 at Luke Air Force Base, Ariz. The four pilots are 1st Lts. Austin Skelley, Ryan Shelhorse, Marcus McGinn and Dan Dickinson.





An F-22 Raptor takes off
at Tyndall AFB, Fla., the next
stop for the four new
fighter pilots.

Prior to arriving at Luke, the four pilots were part of a pool of eight candidates hoping to be selected as the first students to go directly to the F-22. Raptor pilots currently flying the airframe had previous flying experience in other fighter aircraft.

The Raptor Lead-in Course is a five-week opportunity for the four new pilots to experience flying a high-G, high performance aircraft — in this case, the F-16 Fighting Falcon — with an instructor in the back seat before taking the stick of the \$169-million, single-seat F-22 by themselves, said Maj. Daniel Munter, a 56th Training Squadron instructor pilot.

“This course is designed to be an intermediate step to (the pilots) taking the F-22 up for the first time and being successful,” Munter said.

Pilots and other instructors from the 56th Fighter Wing have been working since early 2007 on this course. The course is not necessarily designed to teach the pilots how to fly the F-16, but rather to give them experience in a high-G environment while familiarizing them with other aspects of fighter aviation which were unavailable to them during their previous training.

After undergraduate pilot training, the eight newly-graduated pilots were sent to Randolph AFB, Texas, for the Introduction to Fighter Fundamentals Course. That course familiarized them with fighters via the T-38 Talon trainer aircraft. By the end of IFF, the final four were selected to become F-22 pilots.

By learning to push the envelope in the F-16, the Raptor Lead-in Course is designed to help them be successful in the maneuvering dynamics of the F-22, Munter said.

One of the major benefits to their F-16 familiarization is the similarities of the two aircraft, specifically the side-stick controls. Other aircraft in the Air Force inventory are flown with the controls between the pilot’s legs. The fly-by-wire system is

unique to these two fighter aircraft, so the added experience will enhance their skills as they transition to the F-22.

Other items the students will learn more about while at Luke AFB include night flying, day and night landing, air-to-air refueling, and increasing their ability to perform the anti-G straining maneuver. All of this training is key to the new pilots’ safe transition to the F-22, especially when it comes to handling Gs, Munter said.

The T-38 Talon is quick and maneuverable, and it may have pushed the pilots to experience six Gs, or six times the force of gravity. While flying the F-16, the pilots will experience up to nine Gs, making their transition to the F-22 easier and safer to handle.

This course is exactly what instructors at Luke AFB are used to doing, said Brig. Gen. Noel T. “Tom” Jones, the 56th FW commander.

“You will get a lot of experience here from a fighter perspective and an intelligence perspective that’s very transferable to the F-22,” he said to the four pilots.

For the new pilots, the opportunity to fly the high-performance F-16 before moving on to the Air Force’s most advanced fighter is something to which they all look forward.

“Learning to fly an advanced fighter from world-class instructors is going to be a great opportunity for our class,” said Skelley, a native of Casa Grande, Ariz.

After completing the course at Luke, the pilots will go on to the 43rd Fighter Squadron at Tyndall AFB, Fla., where after more than two years of preparation, they will take on the F-22. ✈

Lieutenant Bouchard is with the 56th Fighter Wing Public Affairs at Luke AFB, Ariz. (AFPN)



F-22 Raptors fly in formation. The Air Force’s first four pilots to go directly to the F-22 without previous fighter experience are training at Luke AFB, Ariz., in F-16s in preparation for taking on the Air Force’s most advanced fighter.

by Staff Sgt. Samuel Rogers

RAPTOR ENTERS 'ICE AGE'

F-22 endures three-week cold-weather test in Alaska

EIELSON AIR FORCE BASE, Alaska (AFPN) — An F-22 Raptor came here for three weeks in November to test the aircraft's braking system on ice in time for the first snow at Elmendorf Air Force Base, Alaska, home to several F-22s.

"We were validating the F-22 braking system's stability and performance as well as evaluating cold-weather operations and maintenance procedures," said Maj. Jack Fischer, the 411th Flight Test Squadron deployment commander and an F-22 test pilot.

"We were testing the Raptor's behavior while maneuvering and stopping on slippery surfaces," he said. "Whether during a snow storm or ice fog, we have to be able to land on poor surfaces. Stopping on problem-surfaces is a challenge for every Air Force jet."

The F-22, from Edwards AFB, Calif., has already undergone extensive hot and cold weather testing at the Air Force McKinley Climatic Lab at Eglin AFB, Fla. The major said the aircraft was subjected to incredible environmental conditions; however, they could not test the braking system there.

The aircraft was tested on incrementally low-level runway condition reading surfaces, or how contaminated the runway is and how much concrete is needed to stop the aircraft, in temperatures ranging between 37 to 13 degrees below zero, said Richard Backs, a 411th FLTS project manager.

The team needed the temperature to be cold enough to freeze water to create a test surface.

"We started with basic ground maneuvering on an icy surface and progressed to high-speed braking tests and, eventually, both real and aborted take-off and landings under low RCR conditions," he said.

The F-22's anti-skid system is only used in the F-22. No other planes have this kind of system, Fischer said.

"It's like an anti-lock brake system in your car, but on steroids," he said. "In addition to looking at wheel slip (like in your car) this system also accounts for deceleration through its navigation system, and



by Kevin Robertson

allows the aircraft to safely and reliably stop on any surface that it may encounter."

The F-22 came up for a three-week deployment; however, the team was able to finish all mandatory test points within the first five days. They were able to use the rest of their time to fine tune and to collect as much data as possible.

"The F-22 demonstrated incredible brake-system stability on low-friction surfaces," the major said. "Mother Nature also helped out by giving us the necessary weather conditions during the majority of our test window. Testing is about finding strengths, weaknesses and limits. The team learned plenty."

The information obtained will enable the team to update the aircraft's flight manuals to enhance the safety of the operators in the field, officials said.

The data also will contribute to other important factors.

"We were also able to develop F-22 cold weather pilot and maintenance techniques and procedures, as well as gather enough data to update the takeoff and landing distance charts in the F-22 publications," Fischer said.

— Airman 1st Class Nora Anton
354th Fighter Wing Public Affairs

An F-22 Raptor (left) performs maneuvering, stopping and going on low runway conditions Nov. 7 at Eielson AFB, Alaska. The F-22 underwent cold-weather testing on its braking system.



by Senior Airman Garrett Hohman

A 90th Aircraft Maintenance Unit crew chief signals an F-22 Raptor pilot laden with concrete bombs to begin its departure for a training mission at Elmendorf AFB, Alaska, where cold-weather braking is the norm. The F-22 performs both air-to-air and air-to-ground missions allowing full realization of operational concepts vital to the 21st century Air Force.

ARE YOU LOOKING FOR

AVOID MIDAIR COLLISIONS WITH CIVILIAN LIGHT

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

Photo by **JIM KOEPNIK**



As a general aviation pilot, I fly through military operating areas! ... And since I use my global positioning system moving map display, I can fly right along the border of a restricted area. My Mode C altitude reading sometimes doesn't work, and I tend to turn my radio off for most of the flight. I rarely call air traffic control because I hate being vectored — too inconvenient.

I've even flown from Oshkosh, Wis., to West Palm, Fla., without talking to a soul. I fly direct to save time and gas, and, yes, I'm 100 percent legal.

If you believe I'm a cowboy aviator, you're wrong.

I fully fly and maintain my aircraft well within Federal Aviation Administration regulations, using airmanship skills developed and honed as an Air Force fighter pilot. Because of this, I'm more likely to go above and beyond what a typical general aviation pilot would do to stay out of your way.

Actually, the question should be directed at you, the military aviator: Are you looking for me as we share the skies safely?

I know a lot about you since I'm a military aviator, but do you know much about me? What do you know about the civilian aviator in a light aircraft?

I fly an experimental aircraft with a 23-foot wingspan at 150 knots. My aircraft is difficult to see both visually and on your radar. Sometimes I fly in formation with several aircraft — from fingertip to 6,000 to 9,000 feet line abreast with an altitude split. Or I could be flying single-ship doing aerobatics.

I hope you're visually looking for me and not just depending on your radar to find me and my friends. I'm usually flying between 3,000 and 10,000 feet as I cruise across the country. I would expect other light singles to be around the same altitudes, following roads and at speeds between 100 and 250 mph. For light twins, expect them

ME?

AIRCRAFT



HOW TO SEE AND AVOID

1. Clear your flight path. If heads down, ensure your wingman is looking for threats (other traffic). Sounds like common sense, but it's easy to get a "helmet fire" and spend more time looking in the aircraft than out ... especially with all the new gadgets in modern cockpits. Below 10,000 feet and/or anywhere near an air traffic area, your cranium should be on a swivel — never focused inside the cockpit unless you have someone clearing for you.

2. Use flight following when on a cross country or returning to base from the range or military operating area. But don't count on air traffic control to save you. You should be the one with the most situational awareness.

3. Plan on civilians blasting through your operating area as a general rule of thumb, and have a plan for your knock-it-off.

4. Don't intercept civilian aircraft unless specifically directed. I know it's tempting, but don't. Besides alarming the other pilot, you're most likely violating your own training rules.

5. Speaking of training rules, Air Force Instruction 11-214 states to knock-it-off if "an un-briefed or unscheduled flight enters the working area and is detrimental to the safe conduct of the mission."

6. Use sectional charts for your mission planning.

7. Comply with the federal aviation regulations — speed and airspace restrictions. Don't go blasting through Class B airspace after cancelling instrumental flight rules as you enter a low-level route.

8. Book your visual low-level route, and make your entry time.

9. Keep your situational awareness high. Know where you are at all times. Six years ago a fighter pilot had a mid-air with a Cessna. Why? The fighter pilot had no situational awareness on where he was and blasted right through Class B and C airspace for two large airports.

10. Report all close encounters via a Hazardous Air Traffic Report form. I'm positive there are many close encounters never reported. For our system to better accommodate civilian and military traffic, there needs to be data to substantiate the agenda to push for safety related issues.

— Lt. Col. Edward Linch III

Flying his experimental aircraft, Lt. Col. Edward Linch III warns military pilots to watch out for civilian light aircraft like his "Van's RV-4," which has a top speed of 210 mph and is fully aerobatic. Such aircraft do fly in military operating areas. If the pilots aren't watching for each other, there is a high risk of a midair collision.

to be in the mid-teens. I also would plan on civilians not observing the existence of your military operating area (as I have had them blast right through the middle of my four-ship engagements in the past). You may never even see them since you are focused on air-to-air tactics versus visual search for a "bug smasher." (For more information, check out the above article titled "How to See and Avoid.")

Regardless of your ability to find me and your situational awareness, I'm looking for you! Among other things, I fly below your air-to-air floor, and check the outstanding flying safety Web site SEEandAVOID.org for any information regarding your airspace.

The Web site, started by the Air National Guard, promotes information exchange between civilian and military flying communities to reduce close calls and help eliminate midair collisions.

Nevertheless, not all civilian aviators are looking for you.

A high percentage of civilian pilots are not aware of military airspace information for a variety of reasons — lack of training, lack of information available, attitudes toward military airspace, ineffective midair collision avoidance programs at your base, and the list goes on.

I know what it's like to be on both ends of a close encounter. With experience in

fighters, experimental aircraft and airliners, I've seen a lot of near misses with other aircraft. In most cases, everyone was legal. The bottom line is you have to be vigilant as you share the skies safely with everyone. ... Your best friend could be the guy in the other aircraft.

Colonel Linch is the chief of flight safety with 12th Air Force and Air Forces Southern at Davis-Monthan Air Force Base, Ariz. He is a command pilot with more than 3,000 flying hours in the F-16 and F-111, including more than 150 combat hours. He also is a general aviation pilot. Mr. Koepnik is with the Experimental Aircraft Association, and the photograph is used with permission from the EAA.

MOST F-15s BACK IN BUSINESS

AFTER BEING GROUNDED FOR MORE THAN TWO MONTHS



by Lance Cpl. Kelly R. Chase

F-15 Eagles around the world, including those at Air Education and Training Command's Tyndall AFB, Fla., began flying again Jan. 9, nearly two months after one of the fighter jets broke apart in the sky.

LANGLEY AIR FORCE BASE, Va. (ACCNS) — Most F-15 Eagles were back in business Jan. 9 after being grounded for more than two months. The in-flight catastrophic breakup of one of the fighters Nov. 2 necessitated the grounding while investigators tried to figure out what went wrong and ensure other F-15 aircraft didn't meet the same fate.

According to the Air Combat Command accident investigation board report released Jan. 10, a failure of the upper right longeron, a critical support structure in the F-15C Eagle, caused the catastrophic failure of the remaining support structures and led to the aircraft breaking apart in flight. This also led to the subsequent grounding of all Air Force F-15 aircraft worldwide.

The report said a technical analysis of the recovered F-15C wreckage determined that the longeron didn't meet blueprint specifications. This defect led to a series of fatigue cracks in the right upper longeron. These cracks expanded under life cycle stress, causing the longeron to fail, which initiated the accident.

The pilot received injuries to his left shoulder and arm prior to ejecting from the aircraft. The \$41.7 million tactical fighter aircraft, assigned to the Missouri Air National Guard's 131st Fighter Wing, was destroyed on impact four miles south-southeast of Boss, Mo. There were no fatalities. The pilot was the only person aboard the single-seat F-15C. The crash caused minimal damage to private property and did not injure anyone on the ground.

The board president, Col. William Wignall, a senior F-15 pilot, noted the pilot's actions during the mishap sequence were focused, precise and appropriate. The pilot's actions did not contribute to

the mishap, Wignall said. In addition, a thorough review of local maintenance procedures revealed no problems or adverse trends which could have contributed to the accident.

All Air Force F-15 models stood down following the accident. The F-15E resumed flying earlier than other models because it is

a newer airframe. The stand down led to many fighter pilots losing their currency in the aircraft. Air Combat Command Jan. 8 cleared a portion of its F-15 A through D model aircraft for flying status and recommended a limited return to flight for Air Force units worldwide following engineering risk assessments and data received from multiple fleet-wide inspections. The return to fly order and recommendation applies only to those F-15 aircraft that have cleared all inspections and have met longeron manufacturing specifications.

Eagle drivers throughout the Air Force are starting down the long road to regaining their currency in most models of the F-15.

Less experienced pilots are required to land an F-15 once every 30 days just to fly the aircraft and must maintain demanding-sortie currency with training missions such as basic fighter maneuvers every 20 days to fly more complex missions. More experienced pilots are required to land once every 45 days to maintain landing currency.

F-15 units embarked on squadron commander-directed programs designed to get the fighter squadrons combat-ready quickly without sacrificing safety. The trick, Wignall said, is to balance the need for safety with the defense of the nation.

— Staff Sgt. Thomas J. Doscher
Air Combat Command Public Affairs

The stand down led to many fighter pilots losing their currency in the aircraft. Eagle drivers throughout the Air Force are starting down the long road to regaining their currency in the F-15.

FALL CLOSE CALL ON A KC-10 EXTENDER

TRAVIS AIR FORCE BASE, Calif. — When an aircraft maintainer hears the words situational awareness, we usually associate them with flight crew terminology. However, any time you work around an aircraft, situational awareness affects everyone from the pilot to the aircraft maintainer to the lonely air stair drivers.

A KC-10 Extender crew discovered this the hard way when they exposed themselves to an unprotected open doorway of the aircraft, which has a dangerously high drop-off.

I was working a Friday night swing shift with a few other KC-10 crew chiefs. A reservist shuttle flight came in at 10 p.m., which we always looked forward to because there was sure to be some goodies left on the airplane after the passengers left.

We caught the jet and parked it without incident. It landed on time and with no major writes ups to work. While we were “safetying” the aircraft landing gear, the passenger service representatives arrived to off-load the passengers. This went smoothly as well, and we finished with servicing the rest of the aircraft.

Once we were done, we decided to help ourselves to the leftover passenger meals in the refrigerator.

On the KC-10, the aircraft doors are 20 feet off the ground with one on the left next to the galley and one across from it on right side of the fuselage. On this night the air stair was installed on the left door next to the galley with our regular maintenance stand installed at the right door.

As I was coming up the stand on the right side, my crew was busy emptying the fridge of its contents. They were too preoccupied to notice the air stair had been removed from the aircraft.

It is standard operating procedure that every time a door is left open without a stand or stairs next to it, a red barrier strap is installed across the door to warn and possibly prevent someone from falling. Well, the air stair driver forgot to install the barrier strap and did not tell anyone the stairs had been removed.

As soon I recognized the situation, I told the crew chiefs to freeze and to look around them. Once they noticed that they were standing one foot from the open door with no air stairs or barrier



by Tech. Sgt. Shane A. Cuomo

The door of a KC-10 aircraft is about 20 feet off the ground. When a maintenance crew lost situational awareness, they came dangerously close to finding out just how fast gravity works when falling 20 feet. Here Staff Sgt. Michael Hinton, a boom operator with the 9th Air Refueling Squadron at Travis AFB, Calif., climbs into a KC-10 Extender at Andersen Air Force Base, Guam.

strap, they realized the danger they faced. They put the strap on the door, and I then went down to confront the air stair crew.

At first, the three young Airmen at the stair truck swore up and down that they had notified the crew and installed the strap. But after some stern questioning, we discovered that the person they had mistakenly talked to was a passenger leaving the jet, not one of the maintenance crew.

That night we had a plan and stuck with it. We felt we were prepared; however, a case of mistaken identity and a lack of situational awareness could have led to a serious accident. It's important that you are aware of your surroundings; and if you see something amiss, stop it before someone gets injured or killed.

— Michael A. Dwight
KC-10A maintenance instructor

F-16 PILOT ERROR LEADS TO FOREST FIRE

LANGLEY AIR FORCE BASE, Va. (ACCNS) — Air Force officials determined that the cause of the forest fire on the Warren Grove Training Range in New Jersey on May 15 was pilot error, committed when a pilot of an F-16C Fighting Falcon deployed countermeasure flares at an altitude that allowed the flares to contact the range while still burning.

The accident investigation team discovered that during a basic surface attack training mission, two F-16C pilots, a lead pilot and a wingman pilot assigned to the Air National

Guard's 177th Fighter Wing, Atlantic City, conducted an unscheduled “show of force” maneuver. A show of force is a maneuver typically involving a low-altitude, high-speed pass over an area of interest to demonstrate an air power presence to an enemy force.

While executing the show of force maneuver, the wingman pilot deployed multiple countermeasure flares below the range's minimum release altitude of 500 feet. At the time of the flare release, the pilot was unaware that the environmental conditions on the range prohibited the use

of flares on the range. The use of countermeasure flares during the training mission that day also was not briefed to the range control officer or the lead pilot of the training mission.

The aircraft's flares contacted the ground while still burning, causing several fires. One of these fires spread rapidly beyond the boundary of the range because of extreme environmental factors.

In addition, the lead pilot of the training mission did not discuss the use of flares during the training mission with the pilot who subse-

quently dropped the flares. The investigation also found that prior to the start of the training mission, the lead pilot failed to properly coordinate with the range control officer concerning the use of flares. The board also noted as a contributing factor the failure of the range control officer to convey that flares were prohibited on the range at the time of the training mission.

The board results have been presented and briefed to residents of homes destroyed by the fire, as well as to New Jersey Congressional members and state officials.

Eyes Out

When flying, keep your situational awareness high. Keep your head on a swivel, and know where you are at all times. Even in a military operating area, plan on civilian aircraft blasting through the airspace.



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