

Air Education and Training Command's **TORCH** Fall 2013



FIRE!
Maintainers' training, instinct
save B-52H bomber, aircrew
PAGE 22

NIGHT FLYING MISSIONS *VS* **MEXICAN FREE-TAILED BATS**

Twenty million tiny bats living 11 miles from Randolph pose a giant risk to base aircraft

PAGE 12

OF BIKES AND BRAINS

Drunken motorcyclist shatters skull, career

PAGE 8

SLIDING INTO HYPOTHERMIA

Officer saves teenager from cold death at remote waterfall

PAGE 10

THE ITSY BITSY SPIDER

Man suffers deadly bite from black widow

PAGE 18

SEVEN!

Update ... Group of Airmen conquer seven summits

PAGE 20



C-17 GLOBEMASTER III



REFLECTIONS

"To rectify past blunders is impossible, but we might profit by the experience of them."

— George Washington, July 6, 1780



TORCH 
www.torch.aetc.af.mil | www.facebook.com/aetc.torch

8 Of Bikes and Brains

When a technical sergeant from Grand Forks Air Force Base, N.D., drove his motorcycle while drunk, the bad choice shattered his skull and wrecked his career.

10 Sliding into Hypothermia

An Air Force major from Beale Air Force Base, Calif., saves a teenager's life at a remote California waterhole and finds some teachable moments at University Falls.

12 Night Flying Missions vs. Mexican Free-tailed Bats

COVER STORY

A cave near Joint Base San Antonio-Randolph, Texas, houses the largest bat colony on earth and poses problems for aircraft at the base that fly at night.



18 The Itsy Bitsy Spider

A 35-year-old man has a deadly allergic reaction to a black widow spider bite. How can you avoid the sting of arachnids?

20 Seven!

Update ... Featured in Torch two years ago, the group of Airmen who set out to conquer the tallest peaks on seven continents finally achieved their goal.

TORCH TALK 2

Readers discuss hauling a jet ski, cold water drowning, T-6 Texan II canopy fracturing system handle, flight suits, salt and ice challenge, the art of landing an aircraft and more.



AROUND THE COMMAND 4

Drunk Driving Conviction: Sheppard Airman found guilty of involuntary manslaughter in death of base civilian employee ... Sobering facts.

TALES OF THE STRANGE 6

Home run saves drowning man ... Toy helicopter scalps, kills man.



THE ALERT CONSUMER 7

How \$19.95 saved my life ... A good fit.

HANGAR FLYING 22

Fire! Maintainers' training, instinct save B-52H bomber, aircrew.



CLEAR THE RUNWAY 24

Brain Lesions in Spy Plane Pilots? Upgrades in U-2 target decompression sickness ... Mountain Rescue! Fairchild helicopter crew saves injured horseback rider in Idaho.

Fall 2013

Volume 20, Number 3

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

Gen. Robin Rand
Commander

Col. James L. Fisher
Director of Safety

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

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

Tech. Sgt. Sarayuth Pinthong
Photojournalist
sarayuth.pinthong@us.af.mil

Subscriptions and Contributions:

To request unit subscriptions or address changes, or to submit articles, photographs or artwork, e-mail information to torch.magazine@us.af.mil. Or you can write to: Editor, TORCH, HQ AETC/SEM, 244 F Street East, Suite 1, Randolph AFB, TX 78150-4328. You also can fax to: (210) 652-6982 or DSN: 487-6982. For customer service, call (210) 652-5818 or DSN 487-5818. Include your name, full unit address, phone number, fax number and e-mail address on all submissions. Unit distribution is based on a ratio of one copy per seven persons assigned. For personal subscriptions, call toll free 1-866-512-1800 or write to New Orders, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954.

Visit Our Web Site:
www.torch.aetc.af.mil

Check Us Out on Facebook:
www.facebook.com/aetc.torch



FROM THE DIRECTOR

By Col. JAMES L. FISHER
AETC director of safety



CHANGING WITH THE LEAVES

As this issue of *Torch* comes to you, schools have begun for another new year, fall sports like football and soccer have kicked off, and a new fiscal year has started for our Air Force. Along with this new season, your Air Education and Training Command Safety staff has also seen some changes.

With Col. Tal Metzgar's recent retirement, I have taken the reins as the new AETC director of safety. I come to you having completed a year deployment to Afghanistan, serving on a joint and coalition multi-national staff in Kabul. I have served as an aviator and commander in AETC and am excited to serve again alongside all of you in the First Command.

All these changes remind me that every new season brings added stress and new challenges. We recently completed the Critical Days of Summer campaign, and tragically, 21 of our fellow Airmen lost their lives to accidents during this period across our Air Force. One of those fallen Airmen came from AETC. Across the service, familiar foes reared their heads: Nine people died in motorcycle-related mishaps and seven in four-wheel automobile mishaps.

The Critical Days of Summer each year asks us to be vigilant during summer vacation time as children are out of school, and outdoor activities peak with the rising temperatures.

"We are learning to adapt to these realities to accomplish our mission in a resource-limited environment, but safety of your personnel shouldn't be compromised with these changes."

However, as the leaves start to turn and the crisp fall air begins, please continue to use all your risk management principles while participating in fall activities. Whether participating in riding sports or out in your personal vehicle, the changing weather and temperature patterns introduced by the fall months present new challenges and a need to refocus on risk management and safe operations.

While road accidents comprised the majority of our mishaps, sports and recreation-related accidents continue to occur. While the temperatures might not lend themselves to the summer water sports during the cooler months, a whole new set of winter sports are just around the corner. Please be sure to address these changes in temperature and to prepare and have contingency plans for your winter sports activity.

In addition to changes in the weather this time of year, we have entered into a new fiscal operating year for the Air Force. As in every other year, this one will bring new challenges, new guidance and new expectations. This past year in the Air Force presented all of us with some unique challenges, including reductions in manning throughout and the furloughs of our civilian workforce to meet fiscal goals.

These uncertain constraints are likely to continue this year and will undoubtedly present challenges in your individual work centers. Please don't allow these limitations to affect your decision making and solid risk management principles. We are learning to adapt to these realities to accomplish our mission in a resource-limited environment, but safety of your personnel shouldn't be compromised with these changes.

Again, I am humbled to serve with you and look forward to continuing the outstanding culture of safety within the First Command.

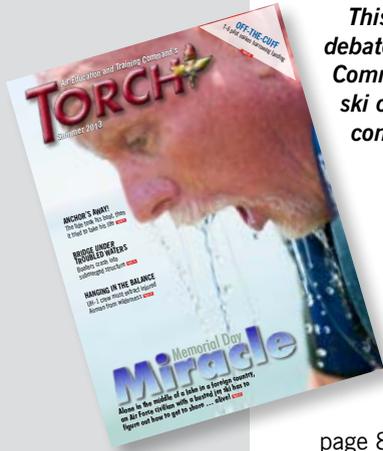
THE GREAT DEBATE

Would you help me settle a debate? My co-worker and I read the article “Memorial Day Miracle” in the Summer 2013 issue of Torch (cover story). Afterward, we were arguing about whether or not the man who was stranded in the middle of the lake should have just abandoned his jet ski, instead of taking the extra time and energy to tow it while swimming through the water. What’s your take?

Steve Wynne
Via e-mail

This is a great question that actually sparked debate within the Air Education and Training Command Safety Directorate. Towing the jet ski certainly would have taken longer and contributed to exhaustion and possibly

hypothermia, depending on the temperature of the water. The extra effort might have resulted in the mishap individual not being able to make it to shore, or being stuck in the water during that lightning storm or at night. That said, our risk assessment concluded that staying with the jet ski was the best option. The jet ski makes you more visible, which could help facilitate a rescue and help you to better avoid being struck by other water vessels. It also provides you with a way to get out of the water to help prevent hypothermia or to simply take a rest. Of course, in the end, the best answer is not to put yourself in that situation in the first place. Ensure your machine is in proper working order before you head out, and never go out on the lake alone — use the buddy system.



COLD, HARD FACTS

Reference your article “Anchor’s Away! The Tide Took His Boat; Then It Tried to Take His Life” (Summer 2013 Torch, page 8), I had a similar experience in cold water. I am an excellent swimmer, but had grown up around warmer water. When I tried to swim across a lake inlet in Utah, however, my muscles began to cramp badly, and it became hard to breathe. Luckily the distance

wasn’t too great, but it surprised and scared me just the same. If you aren’t used to it, cold water can definitely have a quick and negative effect on you. Staff Sgt. Alberto Da Silva’s story is a good one to pay heed to ... thankfully, his wife and daughter didn’t have to see him perish.

K.J. Kikuchi
Via e-mail

LETTERS TO TORCH

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

[torch.magazine@](mailto:torch.magazine@us.af.mil)

us.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.

‘OFF-THE-CUFF’

Good on Capt. Brandon Wolf for making the best out of a bad situation; bad on the Air Force and Raytheon Aircraft/Beechcraft for not fixing this problem with the T-6 Texan II sooner (“Off-the-cuff: T-6 Pilot Makes Harrowing Emergency Landing,” Summer 2013 Torch, page 22). The problem with the canopy fracturing system handle location was identified a long time ago, and this wasn’t the first incident. Fortunately Wolf and his student weren’t killed.

“Junior” Anderson
San Antonio

The student pilot’s loose sleeve got caught on the canopy fracturing system handle, which is located near the throttle of the T-6.



USAF PHOTO

'SIGN ME UP'

I agree with C. Gable in his letter "As Good as Advertised" ("Torch Talk" Summer 2013 issue, page 2). Why not make the flight suit the Air Force's utility uniform? It's safer, easier to maintain, and it would give us a unique look from the other services. This is a good idea. Can we start a petition? Sign me up!

*Airman Johnston
Via e-mail*

CAPTIVE AUDIENCE

I am the director of education at Deer Ridge Correctional Institution in Oregon, and I want you to know that Torch magazine is deeply appreciated and well-read in our prison education program. We have 780 men in this prison, and I would estimate at least two-thirds of them read Torch. I am a 20-year veteran, and many of them are vets too. So thank you on behalf of the inmates whose lives you help change.

*Cody Yeager
Madras, Ore.*

MORE HARM THAN GOOD?

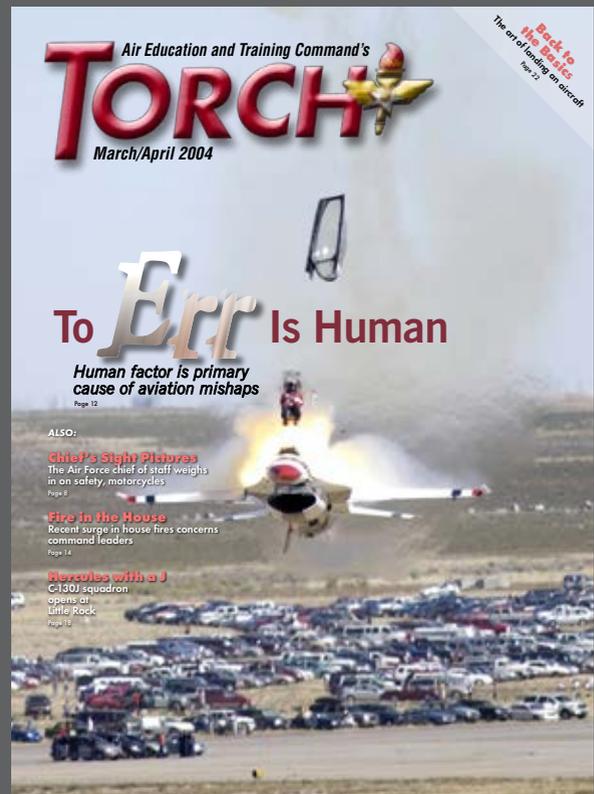
Thank you for the article "Salt and Ice, Cinnamon Spice: Two Crazy Challenges That Don't End Nice" (Summer 2013 Torch, "Tales of the Strange," page 6). My teenage son and his friends did this, and while none suffered as bad an injury as the boy in the picture, they still ended up with some pretty nasty burns. I always wonder if articles like yours do more to prevent or just give more people the idea to try these stupid games. But then when I look at all of the videos that have gone viral on-line, they only show the fun and games and laughter — not the end result. So articles like yours help demonstrate that these games are no laughing matter. They are dangerous. Hopefully, your article will have the intended impact, and not do more harm than good.

*Art Amarillo
Via e-mail*

'THE ART OF LANDING AN AIRCRAFT'

Thank you for sending me a reprint of the excellent article "Back to the Basics: The Art of Landing an Aircraft" by Maj. Mark S. Bennett from the March/April 2004 issue of Torch magazine. The copy I have is scribbled and tattered from years of use by the retired Air Force pilot I'm taking "lessons" from. He lent it to me for ground school training, and I am going to surprise him by returning a "clean" copy to him for his files. My buddy is retired from a full military and subsequent commercial piloting career and now flies a small plane and ultralight "trike" for fun and enjoyment. As a pre-solo trike pilot he's helping me log some hours in his airborne machine. It's a huge leap from Air Force jets to this small machine, but the basics of landing apply equally to both. You've made my day by responding so quickly with the exact archived article I requested!

*Matt Jackson
Rapid City, S.D.*



DRUNK DRIVING CONVICTION

SHEPPARD AIRMAN FOUND GUILTY OF INVOLUNTARY MANSLAUGHTER IN DEATH OF BASE CIVILIAN EMPLOYEE

By Tech. Sgt. **MIKE MEARES**

Photo illustration by Tech. Sgt. **SARAYUTH PINTHONG**

A 22-year-old Airman assigned to the 82nd Dental Squadron at Sheppard Air Force Base, Texas, was sentenced to 30 months confinement, a bad conduct discharge and reduction to the lowest enlisted grade in late July after admitting she drove drunk and caused an off-base vehicle collision resulting in the death of a base civilian employee in June 2012.

Senior Airman Anjelika L. Faul pled guilty to one specification of drunken or reckless operation of a motor vehicle, a violation of Article 111, Uniform Code of Military Justice, and one specification of involuntary manslaughter, a violation of UCMJ Article 119, during a general court-martial here July 29-30.

Faul faced a maximum sentence of 10 years and six months in prison, a dishonorable discharge, total forfeiture of pay and allowances and a reduction to the rank of airman basic for her role in the vehicle accident that claimed the life of Michael David Brown, 53, on June 16, 2012.

Brown worked as a packing and crating specialist in the 82nd Logistics Readiness Squadron at the time of his death. He was also a retired Air Force master sergeant who worked in security forces, safety and as a military training leader while in the military.

Lt. Col. Natalie Richardson, the military judge, presided over the court-martial. In a prepared series of responses read after pleading guilty, Faul told her side of the story, fighting through her tears.

During the first day of a two-day trial, Faul described the timeline events of June 15, 2012, from approximately 9 p.m. that night until about 6 a.m. the next morning.

She recalled a series of decisions during a night out with friends and other Airmen, which ultimately led to Brown's death. Through-

out the night, Faul calculated she consumed about 20 servings of liquor with very little to eat.

"It was Friday night and our plan was to hang out and drink," Faul said. She also noted that she had recently returned from a deployment to Southwest Asia and missed her family and friends while she was gone.

In a statement made to the court, Faul explained she received a phone call in the early morning hours of June 16 about a friend who was at United Regional Hospital for treatment. She said she made the decision to go to the hospital, knowing she was drunk, but felt it was important to be with her friend.

"Because I did all of those things," Faul tearfully said to the military judge, "Mr. Brown is dead and I will have to live with that for the rest of my life."

Faul's friend, a fellow Airman from the 82nd Dental Squadron, told her not to come to the hospital because it was not that serious. The friend also asked Faul if she was sure she was OK to drive since she'd seen her drinking at a local bar earlier that night.

"Altogether, I had too much alcohol to have driven," she said.

Faul continued, telling the court how she had a general idea regarding the location of the hospital and was driving there on intuition. When she realized she missed the hospital exit while driving north on I-44, she pulled over to the shoulder near the Missile Road exit and decided to make an illegal U-turn through the grassy median to go in the opposite direction.

"I think I looked to see if anyone was there," she read. "I didn't see anyone. The next thing I remember is the impact. I didn't see a motorcycle and was surprised by the impact."

Faul stated that after the impact, she got out of her car and looked over and saw a female standing on the highway screaming.

At the scene, Faul remembered standing frozen, in shock, completely surprised by the events and being disconnected from them.

She was taken by police car to United Regional Hospital, where she was administered a mandatory blood test that revealed her blood alcohol level to be .24, three times the legal limit in the state of Texas (.08) and more than twice the acceptable limit allowed by the UCMJ (.1).

A full toxicology report showed that Brown was sober at the time of the collision.

Waking up in jail after she was booked, Faul remembered thinking about the nightmare she was experiencing.

"I thought I would be in jail forever," she said. "I never wanted anything like this to happen."

Speaking directly to the military judge, Faul stated she remembered Brown being a patient of hers at the base dental clinic and that her driving while intoxicated and making an illegal U-turn were the reasons why Brown is now dead.

"Because I did all of those things," Faul tearfully said to the military judge, "Mr. Brown is dead and I will have to live with that for the rest of my life."

After Faul made her statement to the judge, the judge accepted her guilty plea and the government began the sentencing phase of the trial.

The morning that Brown was killed, he was on his routine Saturday morning motorcycle ride to meet up and eat breakfast at the Burkburnett diner with fellow military veterans, according to statements provided to the military judge during the trial.

Brown's father, Floyd Brown, is also a retired Air Force member. His sister, Sharon Bean, wrote a statement to the judge on behalf of the family for the trial, expressing the depth of their loss and telling the judge about Brown and what a great brother, son and uncle he was.

Several members of Brown's unit also testified.

"If you needed anything, (Brown) would be the first to help," said Staff Sgt. Lasandra Anderson, 82nd LRS unit deployment manager. "He was the first to come ... and last to leave."

Airman 1st Class Nathan Zachary, who worked with Brown in the packing and crating section, recounted how Brown had mentored him.

"(Brown) was a mentor to me in many ways," the Airman said. "He was a father figure ... a professional mentor."

Zachary also talked about how Brown kept morale up in the shop by telling stories in the back office of their shop and how difficult it was to go to work after the accident.

"Me and some of my co-workers couldn't go into the back office, because that's where we remember him best," Zachary said.

According to his former supervisors, on a professional level, the loss of Brown also has had negative consequences to the 82nd LRS mission.

"His loss was especially impactful because of his continuity," said Master Sgt. Douglas Hirschfield, former superintendent of cargo at the 82nd LRS and now stationed at Whiteman AFB, Mo., referring to how civilians help maintain a constant presence in the unit despite the military personnel rotating because of deployments, permanent change-of-station moves and other duty assignments.

During the second day of proceedings, character witnesses and family members were called to the stand to testify on Faul's behalf in regards to her upbringing that was marred with drugs and alcohol by her biological mother.

Those testifying included her father, half-sister and Tech Sgt. Jessica Watkins, who supervised Faul's work as a dental technician.

"One of the best Airmen who worked for me," the NCO said. "I never had to question her work ethic. She's a good person, and good people can make bad decisions."

Before closing arguments on the second day of the trial, Faul read an unsworn statement, standing in front of the bench facing the judge in her full service-dress uniform.

"Every time I get into a vehicle, I think about (Mr. Brown)," Faul told the judge as she tearfully choked through the words. "Every time I see a motorcycle, I think of him. ... I'm deeply sorry. I am determined to be the best person I can be."

Both sides came to a pretrial agreement that included a condition that a sentence of confinement would not exceed five years. Under the terms of the plea agreement, if the judge had sentenced Faul to more than five years in jail, the convening authority would only have been authorized to approve a five-year sentence. Because the judge sentenced her to 30 month's confinement, the pretrial agreement will not impact Faul's actual sentence served.

Sergeant Meares is with the 82nd Training Wing Public Affairs at Sheppard AFB, Texas. (AETCNS)

SOBERING FACTS

- The average person metabolizes alcohol at the rate of about one drink per hour. Only time will sober a person up. Drinking strong coffee, exercising or taking a cold shower will not help.
- Almost every 90 seconds, a person is injured in a drunk driving crash.
- Every day in America, another 27 people die as a result of drunk driving crashes.
- One in three people will be involved in an alcohol-related crash in their lifetime.
- You are twice as likely to be killed in a drunk driving related crash on the weekend and more than four times more likely to perish at night.
- In fatal crashes in 2011, the highest percentage of drunk drivers was for drivers ages 21 to 24 (32 percent), followed by ages 25 to 34 (30 percent) and 35 to 44 (24 percent).
- An average drunk driver has driven drunk 80 times before his first arrest.
- If all 17 million people who admitted to driving drunk had their own state, it would be the fifth largest in the U.S.

— Centers for Disease Control; National Highway Traffic Safety Administration



HOME RUN SAVES DROWNING MAN

If it weren't for a home run during a recreational softball playoff game in northern Utah, a man who fell into an irrigation ditch might have drowned.

Bart Griffiths was fetching a ball that was hit over a fence at the Willow Park Sports Complex in Logan, Utah, Sept. 4 when he saw something out of the corner of his eye.

"I was picking it up and walking back in, and I glanced over toward the swamp, and I thought I saw something gray," Griffiths told *The Herald Journal*.

"What it was, was the tire of the wheelchair sticking up. And I thought, 'Why is somebody dumping something in the swamp?'"

But then he spotted a 62-year-old man nearby, face-down in about 6 inches of water. Griffiths thought the man was dead.

"When I lifted him up I said, 'Can you hear me?' And he said, 'I'm dying,'" Griffiths said. "And I thought to myself, 'Oh, that's a good sign (he's talking).'"

Griffiths called 911 on his cellphone, and paramedics transported the man to the hospital. First responders said the man, who had propped himself up on his elbows to breathe, had probably been in the ditch for 15 to 30 minutes and was starting to show signs of hypothermia.

The man had crashed his motorized wheelchair into the edge of the canal and was thrown into the water, Griffiths said. He was cited for intoxication after he was treated, according to police.

The man had crashed his motorized wheelchair into the edge of the canal and was thrown into the water. He was cited for intoxication after he was treated.



"If Grant (Calverley) wouldn't have hit his (home)," Griffiths said, "That guy might have still been in there."

— *Information from The Herald Journal*

TOY HELICOPTER SCALPS, KILLS MAN



An out-of-control toy helicopter struck a 19-year-old man in the head, scalping and killing him Sept. 5 in Brooklyn, N.Y.

Roman Pirozek Jr. lost control of the remote-control operated machine at Calvert Vaux Park, a popular destination for model aircraft fans. ABC News reported that when the helicopter fell, the rotor blades scalped the victim. Paramedics at the scene pronounced him dead on arrival.

Law enforcement officials said the teenager had been attempting a trick with the helicopter before the accident happened.

— *From wire reports*



Roman Pirozek Jr., shown here in a photo from his Facebook page posing with a model helicopter, died when his toy crashed into his head.

HOW \$19.99 SAVED MY LIFE



OSAN AIR BASE, South Korea (AFNS) — What's your life worth? One-million dollars? Priceless? What if I told you something that cost me \$19.99 saved my life?

Two years ago, I paid \$19.99 for a bicycle helmet, and recently its value far surpassed its cost.

I was doing what a lot of us at Osan Air Base do — riding my bike. I went to work, to the gym and then rode home to my off-base residence.

On this day, at about 2 p.m., the sun was shining brightly as I came across a busy downtown intersection. The green cross light was counting down, and I had about five seconds to cross the street. I made it across safely, but was going so fast that I lost control of my bicycle.

Everything happened so fast. I swerved left to miss a person. Then, I went to the right around a bus bench. Despite every effort to avoid all the hazards, my left handlebar clipped a light pole. ...

I flew over the handlebars.

My right temple hit the ground so hard I blacked out.

When I woke up I started checking my limbs and looking for blood. I had road rash here and there from the fall, but I didn't feel

I had any broken bones.

Then, I took off my helmet and found it broken in two, right near my temple.

This is the point where I realized just how important safety gear is and how much it's worth.

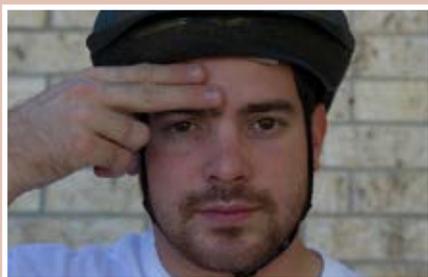
Some people think it's a waste to spend money on safety gear. I have to be honest; I was one of them. This experience taught me that spending a few dollars now could save a lot of pain and suffering later.

Applying some risk management to the situation made me realize I would still be wearing that helmet, but I would have waited for the next green light rather than hurrying across the street. Looking at the same traffic light now, I realize there was a lot going on and there were a lot of potential hazards.

On the day of my accident, had I scanned the area a little better and taken a little extra time thinking of what could happen, I would have made a different choice.

Still, \$19.99 saved my life.

— Master Sgt. Daniel Donnelly
51st Logistics Readiness Squadron



A GOOD FIT

A helmet is the single best way to prevent brain injury when riding a bicycle. A bicycle helmet should be snug, level and stable on your head and cover most of your forehead before any adjustments are made.

■ Place the helmet on your head, and without buckling the chin strap, shake your head to see if it shifts from side to side.

■ If the helmet moves a lot, it's too loose and either needs to be tightened with pads or the ring at the back and base of the helmet ... or you need a smaller helmet.

■ If your forehead isn't covered, you probably need a larger helmet.

■ With the helmet level on your head, you should see the very edge or rim of your helmet when you look up past your eyebrows. This is about **two finger widths above your eyebrow.**

■ The straps should meet and form a "V" right under each earlobe. To check this, **form a "V" with two fingers around your ear.**

■ Once the straps are adjusted in a "V," buckle them. The straps should be snug but not too tight. Adjust until you can put **no more than two fingers between the strap and your chin.**

— National Highway Traffic
Safety Administration



COURTESY PHOTOS

Tech. Sgt. Mark Hopkins has loved motorcycles his whole life, but on May 27, 2012, he was involved in a motorcycle accident that nearly ended his life. Blood tests showed Hopkins, from Grand Forks AFB, N.D., had a blood alcohol level about twice the legal limit when the accident occurred and was wearing a helmet not approved by the Department of Transportation.

Of Bikes and Brains

Driving a motorcycle while drunk shattered an Airman's skull and wrecked his career

By Staff Sgt. **SUSAN L. DAVIS**

May 27, 2012, is a day that Tech. Sgt. Mark Hopkins will never forget — even though it's a day he can barely remember.

It was the day he made a choice that drastically altered his life forever ... and almost ended it in the process.

"All I remember is hopping on my motorcycle around noon on my way to hang out with some fellow bikers for a friend's birthday," said Hopkins, who was assigned to the 319th Civil Engineer Squadron at Grand Forks Air Force Base, N.D. "I woke up a month later from what I thought had been a nap. Apparently, I'd had a pretty serious motorcycle accident."

The wreck ruptured and shattered the left side of his skull, causing his brain to bleed, his eardrums to burst and his left eye socket to fracture. The injuries he suffered should have been enough to kill him, he said. As it was, the mishap left him with a traumatic brain injury, not to mention almost totally deaf in his right ear.

According to the blood tests taken at the hospital, Hopkins had a blood alcohol level roughly twice the legal limit. He also had been wearing a helmet that wasn't approved by the Department of Transportation.

Hopkins said his road to recovery has been a long and difficult one. Shortly after arriving at Altru Hospital in the city of Grand Forks, he was taken into surgery where the doctor induced a medical coma to prevent any further bleeding and swelling on his brain. He spent the next 13 days in a critical care unit.

His injuries were so severe that the Grand Forks AFB Honor Guard began preparing for a military funeral when news of the accident got back to the base.

Once Hopkins came out of the coma, he underwent intensive speech, mental and physical therapy. He had to relearn how to stand, walk, talk, brush his teeth and feed himself. A month into his stay at Altru, he was finally able to recognize family and friends, as well as speak their names.

“A staff sergeant from work who I was friends with was standing at my bedside, weeping and unable to stand up straight,” Hopkins said. “Apparently after countless visits over the past month, I finally recognized him and spoke his name for the first time.”

After spending 43 days in the hospital, Hopkins was released to go home; although, he was far from finished with his recovery process.

“I continued therapy three days a week and had to be with someone at all times, both in and out of the hospital,” he said. “My skull hadn’t been repaired with titanium yet because my brain still had to heal a while longer.”

It would be several months before he could have his head hardened with titanium while the healing process continued. During that time, he was forced to wear a black medical helmet to protect his brain from further injury, which his doctor said could very well have killed him.

“My days were short then,” he said. “I would wake up in the morning and just be so miserable and exhausted. I would have to lie down for a nap in the middle of the day and wake up again around 5 p.m.,” he said. “My wife, Melissa, worked, but would come home on her lunch break. My three kids (14, 13 and 11) took turns staying with me throughout the days on summer break. They would take me for walks around the base, always making sure I had my black medical helmet on and calling my wife if I refused to wear it.”

Finally the day came in November 2012 when Hopkins had a portion of his scalp hardened with titanium. The titanium reinforcement proved necessary after fragments of his skull had been removed immediately after the accident six months earlier.

During his healing process, Hopkins endured the grueling ordeal of having staples applied to and removed from his scalp

(more than once) and having the doctor insert a needle the size of a pencil into his head to drain the excess fluid that would build up.

The sergeant expressed his deep remorse over the choice he made and what it put his loved ones through.

“I have no one to blame except myself for what happened,” he said. “I failed to practice safety techniques that I’d learned throughout my years of riding, and I nearly lost my life for it. My wife, children, family, friends and co-workers nearly lost me because I was selfish and I chose to drink and wear improper safety equipment while operating my motorcycle.”

Hopkins, or “Hopper,” as he’s known to his friends, had 14 distinguished years of service behind him when the accident happened, but he will be discharged soon, ending his Air Force career.

Surprisingly to some, however, Hopkins still has an unwavering love for riding and plans to work on motorcycles after he separates from the Air Force.

But, he said there are two things he will never ride without again:

“A DOT-approved helmet and sobriety,” he said.

Hopkins has a firm grasp of the gravity of his situation and said he is very thankful to have been able to come out on the other side.

“This is my second chance to continue to be a better father, a better husband and to do something I love,” he said. “I am the living example of what may happen to a biker who does not put safety first and respect his bike ... and the trauma it can cause. If I can help save one life just by sharing my story, that makes it worth it to me.”

“All I remember is hopping on my motorcycle around noon on my way to ... a friend's birthday. I woke up a month later from what I thought had been a nap.”

Sergeant Davis is with 319th Air Base Wing Public Affairs at Grand Forks AFB, N.D. (AFNS)

After being in a coma for nearly a month and spending 43 days in the hospital, Hopkins recovery was far from over. He has endured months of grueling physical therapy and had to have his shattered skull hardened with titanium.



The motorcycle wreck ruptured and shattered the left side of Hopkins' skull, causing his brain to bleed, his eardrums to burst and left eye socket to fracture. He suffered a traumatic brain injury and was left almost totally deaf in his right ear. He also had to relearn such basics as walking and feeding himself.

SLIDING INTO HYPOTHERMIA

Officer saves teenager's life at remote California waterfall

By DANA LINEBACK



During Labor Day weekend in early September, Maj. Jaesin White and his family set out on a hike to a popular swimming hole in the Sierra foothills of Northern California. They never suspected the path they followed into the woods that day would lead them to a teenage girl who would need their help to survive.

"We'd considered driving up to the Oregon border to hunt volcanic rocks, but I wanted to just stay local," said White, commander of the 940th Logistics Readiness Squadron, a Reserve unit at Beale Air Force Base, Calif.

"I'd heard several of the guys at the squadron talking about a natural water slide up in the foothills near here, so I decided to take the family there for the day," he said.

White, his wife, and their three young sons, along with White's parents, parked their car along a dirt road and set off on the three-mile trek that took them down a steep canyon to University Waterfalls Sept. 1.

"It was a pretty good hike in," White said. "I was surprised to see so many people there when we arrived that afternoon."

The family had been there awhile, picnicking and playing in the water, when White noticed a young lady shivering uncontrollably on a nearby rock.

"The water in the pools there is snowmelt from the Sierras, and it's ice cold," White said. "She was exhibiting all the signs of hypothermia ... (the kind) Bear Grylls warns about on his survival shows."

As the 16-year-old girl's condition rapidly deteriorated, the group of family and friends surrounding the young lady seemed confused about what to do to help her.

"They all had that 'deer in the headlights' look, and I could see she was in serious trouble," White said. "My training just kicked in."

The Air Force commander instructed several in the group to vigorously rub her arms and legs. He dispatched someone back to the road to call for help. He sent another to find dry clothes for the girl. He ordered a couple of young men to build a fire. White himself began moving the girl's legs and arms back and forth.

Despite their best efforts, the teenager began slipping into



COURTESY PHOTOS

With the girl dying from hypothermia, White (center) had to work fast, not only to get her body temperature up but to administer CPR after she stopped breathing twice.

unconsciousness, and her breathing slowed to a stop. White began chest compressions, and the girl’s uncle breathed air into her lungs.

She began breathing again and color was returning to her lips when, suddenly, she stopped breathing a second time. White immediately resumed CPR, and the girl came back around.

“I knew we needed to move her out of the forest before night-fall,” he said. “We probably had less than an hour of daylight remaining. She couldn’t walk, so we draped her arms around our

To beat the summer heat, locals flock to a popular swimming hole at University Falls in a remote canyon of the Sierra foothills near Beale AFB, Calif. Area emergency services have responded to a dramatic increase in rescues from the isolated location in recent years.

shoulders and carried her up the cliffs along a path that inclined at a 45-degree angle.”

It took the group nearly an hour to reach flat land.

“By the time we reached the fire road, she was able to get her feet under her and take small steps with support,” White said. “She was responsive and even started worrying about her hair and clothing. (That’s when) I knew she’d be all right.”

Five minutes later, emergency responders arrived along the isolated road.

“Because of the remote, back country nature of that location, our normal mission time is four to six hours from the time the 911 call comes in to arrival at a definitive care facility,” said Greg Schwab, fire chief of the department that responded to the incident that afternoon.

According to Schwab, emergency calls from the falls area have increased dramatically in recent years, jumping from an average of three missions each year to 12 last year.

“It’s become entirely too popular to go out there,” the fire chief said. “People don’t realize how dangerous it can be. You’re in a steep canyon with limited cell coverage. If something happens, it takes a while for help to arrive. In this case, I’m glad someone was there who could put together a rescue plan and execute it.”

So was the girl whose life White saved.

“God sent me an angel, and that angel was Jaesin,” said Karina, the rescued teen. “He’s my hero, and I want to thank him from the bottom of my heart for everything. I owe him big time. I’m so thankful to see another day.”

“I was just glad there was a happy ending to the weekend,” White said. ✨

Ms. Lineback is with the 940th Wing Public Affairs at Beale AFB, Calif. (AFNS)

A WATERSHED MOMENT

‘LESSONS I LEARNED AT UNIVERSITY FALLS’

- If hiking to a remote location, always take food, water and a first aid kit.
- Never go hiking alone.
- Form a solid emergency plan before something goes wrong.
- Stay calm so you can think clearly if something does go wrong.
- Self-aid and buddy care training is sometimes taken for granted but is so valuable. You can’t put a price on training that saves lives. It’s the difference between being able to help someone or having to stand by helplessly because you don’t know what to do.



Maj. Jaesin White

— Maj. Jaesin White

NIGHT FLYING MISSIONS *VS*

By **ALEX SALINAS**

Illustration and photos by Tech. Sgt. **SAMUEL BENDET**



TWENTY MILLION TINY BATS LIVING 11 MILES FROM RANDOLPH POSE A GIANT RISK TO BASE AIRCRAFT



MEXICAN FREE-TAILED BATS



located about 11 miles northwest of Joint Base San Antonio-Randolph, Texas, is the true “bat cave.” Bracken Cave nests millions of migratory Mexican free-tailed bats from March to October and is the largest bat and mammalian colony on earth. The majority of the bats in Bracken Cave are females nursing their babies, so every evening during these months they emerge between 6 and 8 p.m. to feed. Because of the sheer volume of these tiny winged creatures, base training aircraft can find themselves battling the bats for airspace.

The bats, flying southeast, are on a collision course with bugs like cotton bollworm moths and army cut-worm moths being pushed from crops southwest by winds, according to Mike Pacheco, U.S. Department of Agriculture wildlife biologist for Randolph.

During fiscal 2013, Randolph reported six bat strikes occurred during flights, according to Air Education and Training Command’s Flight Safety Division. That followed zero in 2012 and nine in 2011. Because the incidents were single-body collisions, the aircraft did not experience significant damage, AETC safety said. This is partly because of Randolph’s limited scheduling of nighttime flights — when the bats are most prevalent.

Maj. Kevin Douglas, 12th Flying Training Wing flight safety officer, said flying ceases on base at 5:30 p.m. except for the T-1 Jayhawk, which is the only aircraft with a nighttime flying requirement.

Under 12th FTW Instruction 13-204, a local flying regulation, bat procedures are implemented one hour prior to sunset and 30 minutes after sunrise from April 1 to Oct. 31 — ironically ending the day after Halloween.

The procedures essentially help serve as a real-time warning system for airborne pilots.

However, the bats at Bracken Cave are not the only reason why Randolph does not operate a large flying mission during the night, but research that began more than four decades ago contributed to that decision.

In 1974, the flight safety office determined that sharing the surrounding airspace with bats was best suited for the Randolph flying mission, said Dr. Larry Guzy, a professor at State University of New York at Oneonta.

During the early 1970s, Guzy assisted an animal behavior expert named Leonard Ireland, then an assistant professor at Oakland University with a doctorate in psychology, who helped establish a Randolph bat avoidance program in 1971.

Guzy and Ireland joined forces to study the bats at Bracken Cave and their effect on night mission training with T-37 Tweets and T-38 Talons after initial research was conducted by Ireland.

In a manuscript published in 1973 titled “The Bat Hazard to U.S. Air Force Aircraft,” Ireland and his colleague, Timothy Williams, chronicled their experiments that led to the initiation of the bat avoidance program.

“It wasn’t until the safety officer at Randolph mailed an unknown sample of remains from a plane to Tim Williams at the Smithsonian that he realized it was fur belonging to a bat and not a bird,” Guzy said.

Their first observations began Oct. 20, 1967.

“During the summer of 1968, evening pilot training flight patterns at Randolph were altered to avoid the immediate areas of large bat roosts,” the manuscript stated. “In August 1971, we initiated a bat avoidance program based on real-time radar observations.”

Observations of bat flights from Bracken Cave were made with the ASR-6 search radar at the San Antonio International Airport and with the FPS-77 weather radar at Randolph, the report confirmed.

“When ... activity was first noted on the search radar, the radar operator informed both the T-38 flying safety officer at Randolph and the operator of the weather radar of the position and size of the bat flight by telephone,” the document stated. “The weather radar operator determined, if possible,

the maximum and minimum altitudes of the bat flight and reported this information to flight safety.”

Each year from 1967-1971, the average number of bat strikes that occurred was 31, which were responsible for 80 percent of summer nighttime strikes.

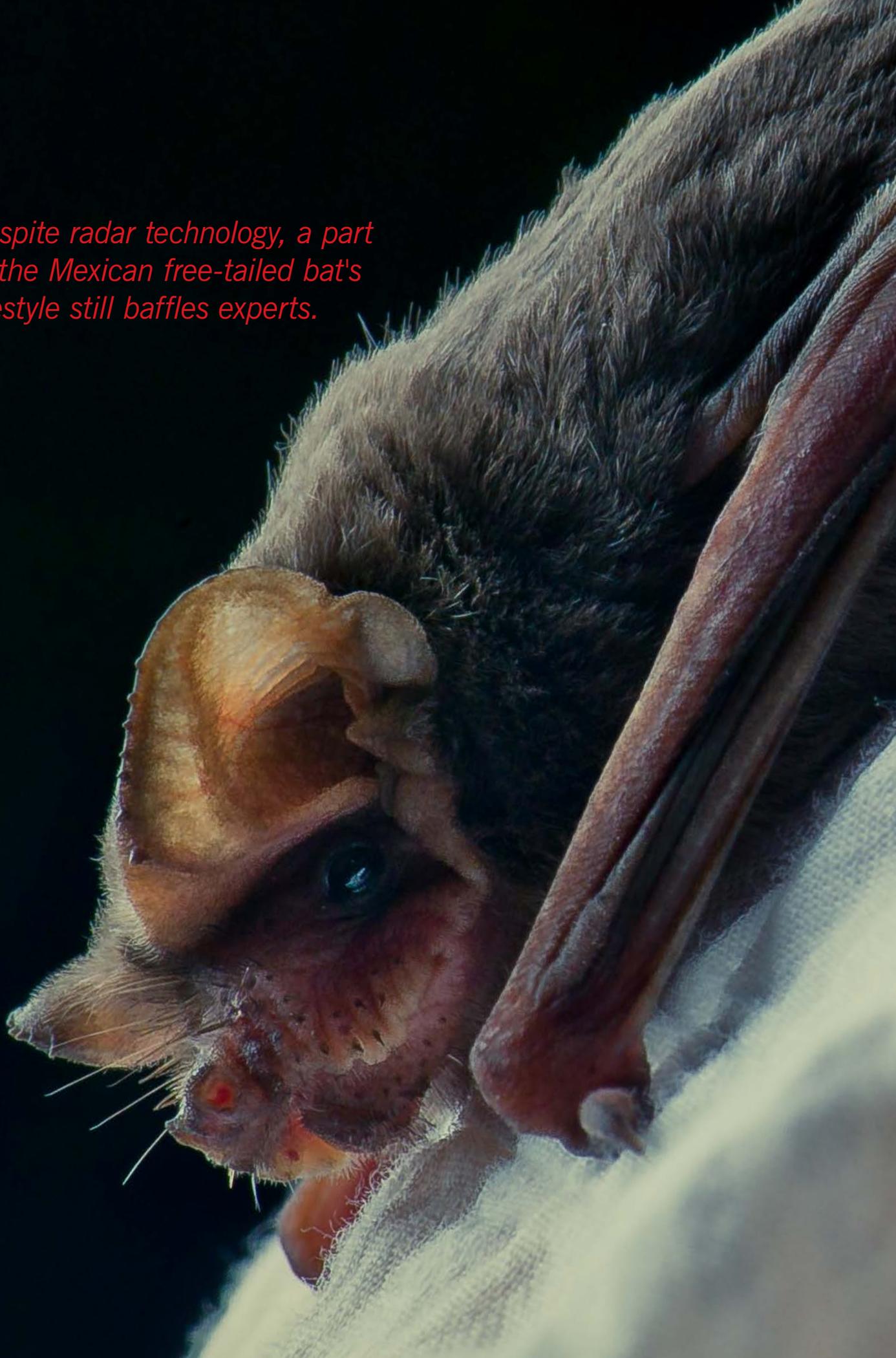
Ultimately, the research in the report concluded that the bat avoidance program was “partially effective” — 16 bat strikes were reported at Randolph in the summer of 1972 and 19 bat strikes were reported during the summer of 1973, a statistically significant decrease from the average number of strikes recorded previously.

Despite radar technology, a part of the Mexican free-tailed bat’s lifestyle still baffles experts.

“In 1974, we found, as previously identified, that the bats’ flying behavior was too unpredictable to be able to identify a pattern that was safe for night training missions,” Guzy

“The bats’ flying behavior was too unpredictable to be able to identify a pattern that was safe for night training missions.”

Despite radar technology, a part of the Mexican free-tailed bat's lifestyle still baffles experts.



said. “One problem that we still have is not knowing how many bats in the air does it take to obtain a radar return.”

Thus, the decision to share airspace was made.

The aircraft most susceptible was the T-38, which “flew during the day and the bats flew at night,” Guzy said.

Guzy also provided a copy of a Wingspread article dated July 18, 1974.

The article, titled “‘Batman’ Comes to Randolph,” reported how Ireland — dubbed “Batman” — and Guzy’s research on Bracken Cave was pertinent to the flying mission.

The article also explained the importance of the bats’ presence to the surrounding area, and a reason why getting rid of them to make way for airspace would be a bad idea. The millions of bats that emerge from the cave eat several tons of insects per night, the article stated.

Based on research in 2006, this produces savings of about \$740,000 to cotton farmers in south central Texas, specifically in the Winter Garden area, whose crops would otherwise be damaged by the presence of too many moths, said Bob Locke, Bat Conservation International director of publications.

The cotton crop area is worth \$5.5 million.

Nationwide, bats save farmers \$3.8 billion per year in potential crop damages and pesticides farmers do not have to use, said Fran Hutchins, BCI Bracken Cave coordinator.

The only real concern regarding flying is the times when the bats leave and enter the cave, Pacheco said.

From a spectator’s viewpoint, the bats, which leave in groups and not all at once, travel in lines resembling a serpentine shape

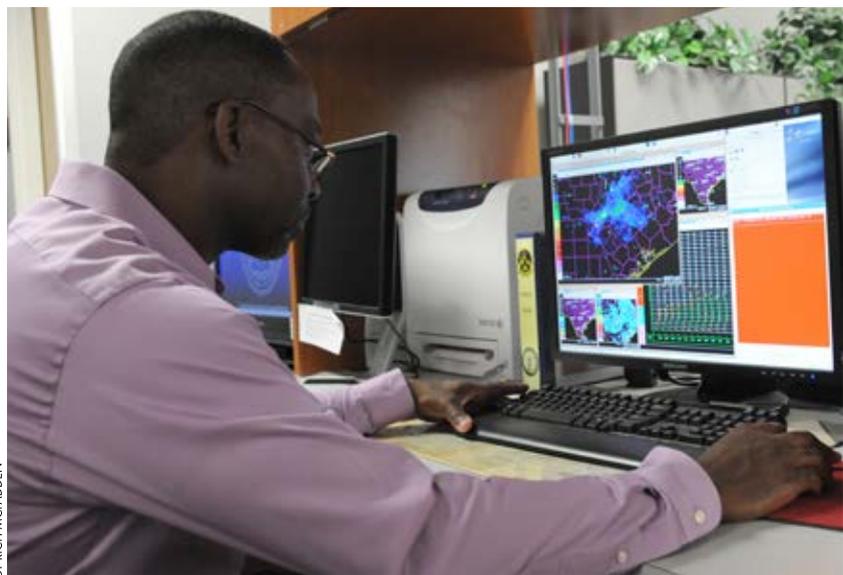
Locke said that an oft-used estimate of the number of bats in the Bracken Cave roost is 20 million, but no one knows the exact figure because there are not any current reliable methods to count the bats.

Ireland remarked at the sight in 1974.

“Often we see clouds 30 miles long and 20 miles wide coming out of Bracken,” he said.

Fast forward 38 years from the exploits of “Batman,” Pacheco commented on his role in the bird air strike hazard program on base and how the program pays homage to separate research undertaken by Guzy on bird strikes in 1973, as well as to the original bat avoidance program. 🦇

“Often we see clouds 30 miles long and 20 miles wide coming out of Bracken.”



BY RICH MCFADDEN

So aircraft and bats can safely share airspace, Alvin Hill, 12th OSS weather flight operations flight chief, checks for bat signatures on the weather radar at Joint Base San Antonio-Randolph, Texas.

Mr. Salinas is with the 12th Flying Training Wing Public Affairs at Joint Base San Antonio-Randolph, Texas.



Bats are natural enemies of night-flying insects — and aircraft. The millions of Mexican free-tailed bats at Bracken Bat Cave in Texas eat up to 200 tons of insects nightly, resulting in 20 to 40 feet of guano lying on the cavern floor. The waste goes through a process of natural decomposition aided by guano beetles and decomposing microbes. As a result, guano contains powerful decomposing microbes, which help control soil-borne diseases. Confederate soldiers even mined bat guano for saltpeter to make gunpowder. The U.S. Government at one time even offered free land to those who found guano deposits and made it available to the public.

The Itsy Bitsy Spider

Man has deadly reaction to black widow bite

By **TIM BARELA**

Photo by **RYAN WUNSCH**



A black widow, with its distinctive red hourglass markings, is America's most recognizable spider ... and one of its most dangerous.

He sat in the hospital waiting room clenching his teeth and clutching the sides of his chair as each muscle spasm sent shock waves of agony through his entire body. Dripping with sweat, he worried that with the venom's entry point on his stomach, it only had a short distance to reach his heart.

Derek Nash, a 36-year-old petroleum engineer in Houston, had been bitten by a black widow spider while he slept.

With its round, black body and red hourglass marking, the black widow is America's most recognizable spider. It delivers a neurotoxin that could force the toughest ultimate fighters to tap out and lay them up in a hospital bed for days. Though its bite is rarely fatal, it's still not an arachnid to trifle with.

Nash had awoken at about 4 a.m. and immediately knew something was wrong. It didn't take him long to locate the puffy red bite on his stomach. He was staying with his parents at the time, so they woke rushed him to the hospital.

"Derek isn't the type to complain so

when he woke us in the wee hours, we knew it was serious," said his mother, Teresa Nash. "The only other time he complained to me of an ailment, he had to have an emergency appendectomy."

At the hospital, Teresa said her son was trying to be the tough guy and kept down playing the pain to the doctor.

"But when the doctor would leave, he'd double over and nearly pass out," she said.

Nash admitted the pain got to him.

"I was a competitive swimmer in high school so I'd experienced cramping and muscle fatigue before," he said. "The spider toxin causes a similar sensation, but it doesn't go away ... there's no relief."

Doctors didn't administer an antivenin, as some people have a worse allergic reaction to that. They watched him closely to see if his body would fight off the neurotoxin naturally.

"They gave me some pain killers and a sedative, and I lost a day ... I was out for like 20 hours straight," Nash said.

He spent three days — at times twitching uncontrollably — in a hospital bed,

but was able to overcome the bite and recover without antivenin.

"It was not a fun experience," he said. "I never want to go through it again."

The Air Force has experienced its share of spider bite mishaps with the black widow and the brown recluse teaming up to do the most damage, according to the Air Education and Training Command Ground Safety Division. In the past few years a black widow sent a 28-year-old Airman to the hospital and caused him to miss 17 days of work. A brown recluse sent a 47-year-old Airman to the hospital for 10 days where he had surgery to clean and drain the wound on his calf. He spent another 24 days on quarters recovering.

"Most spider bites that happen in the Air Force can be prevented by wearing the proper protective equipment such as gloves and not reaching into dark, hard to see areas without clearing them first," said Robbie Bogard, AETC occupational safety manager. "Of course, keeping your work areas tidy and good pest control procedures never hurt either." 🕷️

THE TERRIBLE TWO

Only a few spiders are dangerous to humans. Two that are present in the contiguous United States, and more common in the southern states, are the black widow and the brown recluse. Both spiders prefer warm climates and dark, dry places where flies are plentiful. They often live in dry, littered, undisturbed areas, such as closets, woodpiles and under sinks.

Black Widow

Although serious, a black widow bite is rarely lethal. You can identify this spider by the red hourglass marking on its belly. The bite feels like a pinprick. You may not even know you've been bitten. At first you may notice slight swelling and faint red marks. Within a few hours, though, intense pain and stiffness begin. Other signs and symptoms include chills, fever, nausea and vomiting, and severe abdominal pain.

Brown Recluse

You can identify this spider by the violin-shaped marking on its back. The bite produces a mild stinging, followed by local redness and intense pain within eight hours. A fluid-filled blister forms at the site and then sloughs off to leave a deep, enlarging ulcer. Reactions from a brown recluse spider bite vary from a mild fever and rash to nausea and listlessness. On rare occasions death results, more often in children.

If Bitten by a Black Widow or Brown Recluse

1. Cleanse the wound. Use soap and water to clean the wound and skin around the spider bite.
2. Slow the venom's spread. If the spider bite is on an arm or a leg, tie a snug bandage above the bite and elevate the limb to help slow or halt the venom's spread. Ensure the bandage is not so tight that it cuts off circulation.
3. Use a cold cloth at the spider bite location. Apply a cloth dampened with cold water or filled with ice.
4. Seek immediate medical attention. Treatment for the bite of a black widow may require an anti-venom medication. Doctors may treat a brown recluse spider bite with various medications.

— Mayo Clinic

Seven!

Group of Airmen conquers tallest peaks on every continent

By Maj. BEKAH CLARK

Photo courtesy of the SEVEN SUMMITS TEAM



UPDATE

They did it!

The Seven Summits Challenge team, a group of Airmen who dedicated themselves to conquering the tallest peaks on each of the seven continents, finished their quest. And they saved the tallest for last, reaching the summit of Mount Everest May 20.

Torch first reported on the team's quest in its January/February 2011 issue ("Seven Summits," pages 16-19), when the team had already conquered five of the seven peaks. Maj. Robert Marshall outlined the climbs and talked about the risk management measures the team had in place to make each climb as safe as possible.

An active mountain climber since he was a cadet at the U.S. Air Force Academy, Colo., Capt. Marshall Klitzke, a native of Lemmon, S.D., has felt at home in the mountains since he was a little boy. The Air Education and Training Command pilot joined the team for the Everest climb.

"My grandfather was from [Colorado Springs] so I had visited the area since I was little. He always took me into the mountains to hike or fish and that's when I fell in love with them," said Klitzke,

At Their Peak

Here is a list of the highest summits the Air Force team conquered on each of the seven continents.

1. EUROPE: Mount Elbrus, Russia, 18,481 feet. Status: Completed July 2005.

2. AFRICA: Mount Kilimanjaro, Tanzania, 19,330 feet. Status: Completed July 2006.

3. SOUTH AMERICA: Aconcagua, Argentina, 22,841 feet. Status: Completed February 2007.

4. NORTH AMERICA: Mount McKinley, Alaska, 20,327 feet. Status: Completed June 2008.

5. ANTARCTICA: Mount Vinson, Sentinel Range, 16,077 feet. Status: Completed December 2010.

6. AUSTRALIA: Mount Kosciuszko, Main Range, 7,310 feet. Status: Completed October 2011.

7. ASIA: Mount Everest, Nepal-Tibet, China, border, 29,035 feet. Status: Completed May 2013.

an instructor pilot with the 557th Flying Training Squadron at the U.S. Air Force Academy, Colo. "I've always felt very comfortable there."

The Seven Summits Challenge team is an independent group of Airmen who, through the sport of mountain climbing, aim to spread goodwill about the Air Force. The team also uses its efforts to support and raise money for wounded warriors.

The team is aptly named for its self-imposed challenge to climb the highest peak on each of the world's continents. Since 2005, the team has scaled Mount Elbrus in Europe, Mount Kilimanjaro in Africa, Mount Aconcagua in South America, Mount McKinley in North America, Mount Vinson in Antarctica, Mount Kosciuszko in Australia, and finally, signifying the completion of their goal, Mount Everest in Asia.

According to Klitzke, who has also climbed Mount Rainier in Washington and Ama Dablam in Nepal, the group is the first military team to scale all seven and the first U.S. military team to summit Mount Everest. The Mount Everest climb was the only climb Klitzke did with the group.

After practicing ice climbing techniques, members of the Air Force Seven Summits Challenge team pose on the Khumbu Glacier at Everest Base Camp, Nepal (17,500 feet).

“A buddy of mine, Kyle Martin, and I have climbed together since we were cadets,” Klitzke said. “He put (Maj.) Rob Marshall, a V-22 pilot and the co-founder of the group, in touch with me. Rob offered me a spot on the team for the Everest climb due to my previous experience climbing in the Himalayas.”

To prepare for the climb, Klitzke cites living in Colorado as a benefit.

“Physically, you have to condition yourself and living in Colorado you have the benefit of having the mountains in your backyard,” he said, also crediting military training with his and the team’s success.

“In the military you’re constantly dealing with and working through problems, and it gives you that edge for how to push through challenges,” he said. “It goes back even to my basic training at the Academy. That life experience in the military really bears true on the mountain — sometimes you just have to push through, put your head down and focus on putting one foot in front of the other.”

That training aside, Klitzke is quick to acknowledge the risks of the sport, especially on a mountain as perilous as Everest.

“You’re always very conscious about how it is such a long ordeal, especially with the elements you’re dealing with,” he said. “You’re living on rocks and ice for a month and a half, so something as simple as spraining your ankle has huge ramifications.”

Maintaining physical health and stamina for the summit push, which according to the team’s blog takes on average 12,000 calories to complete, is vital.

“You’re [at such a high altitude] that your body has to burn so many extra calories just to continue to exist,” he said. “I lost about 28 pounds from the time we landed in country to when we finished the climb.”

The group spent about 50 days in country.

“It took two weeks just to hike to the base camp,” Klitzke said. “Once you’re there you have to acclimate so you go up part of the mountain several times before the summit push. While we were there we estimate that we climbed more than 44,000 feet total.

“You go up to Camp One and come back to base camp, then up to Camp Two and back down, then up to Camp Three and then back down. This basically triggers your blood to create more red blood cells so that you can maintain safe blood oxygen levels.”

Once the group acclimated, it took about four days for the summit climb. At 4:30 a.m. on May 20, they reached the summit.

“You spend almost two months getting there, and even though you only get 15 minutes to take everything in, it is absolutely worth it,” he said. “It was pretty amazing getting to see the sunrise over the Tibetan plains and watch the whole world light up.”

Now that he’s climbed the highest peak the planet has to offer, Klitzke has his sights set on medical school.

“While mountaineering will probably always be a part of my life, I have a passion for trying to help people and I feel like I have a lot of ability to do that,” he said. “So my next goal is to become a pilot physician.”

“We couldn’t be more proud of Klitzke and the team,” said Lt. Col. Bradley Oliver, 557th FTS commander. “In addition to climbing Mount Everest, Klitzke is an instructor in all three of our aircraft and is an exceptional officer. I hope his next dream of going to medical school is realized.”✈

Ms. Clark is with the 12th Flying Training Wing Public Affairs at Joint Base San Antonio-Randolph, Texas. (AETCNS)

Seven Greatest Risks



Reaching the Continents’ Tallest Peaks

If you’re adventurous enough — or crazy enough — to tackle the seven summits, here are seven hazards you can expect to encounter.

1. ALTITUDE SICKNESS: This is a problem for most of the high mountains. You need to know how to prevent, recognize and treat it. Allowing yourself to acclimate to the altitude, being fit and staying hydrated help prevent altitude sickness.

2. FALLS: There are two main fall hazards: Slipping down a sheer cliff face or falling in a crevasse. It’s important to stay roped together and know how to self arrest.

3. WEATHER: Facing the elements on the mountain is always hazardous. Blizzards, high winds and freezing temperatures can come without notice. Winds have been known to rip tents apart. Ironically, even in the frigid environment, climbers are susceptible to severe sunburn as sunrays reflect off the ice and snow.

4. COLD: Frostbite and hypothermia are real threats. It’s better to over-pack so you are prepared to combat the freezing temperatures.

5. AVALANCHE: You have to constantly be aware of this risk, know the conditions, and choose your routes carefully.

6. DISORIENTATION: Mountaineering means you’re out in an unforgiving wilderness, and it’s easy to lose your bearings. Mark your trail with little flags, use GPS to mark your positions, and don’t forget a compass, just in case the satellites fail you. Communication devices are also key.

7. SUMMIT-ITIS: This is a phenomenon that occurs when climbers think they must reach the top of the mountain at all costs. And it causes people to make deadly decisions, such as continuing even in horrible weather or when sick or injured. So you need to tell yourself the mountain will always be there, and call a knock-it-off when necessary. You can always climb it next year.

— Maj. Robert Marshall

FIRE! MAINTAINERS' TRAINING, INSTINCT



After a B-52H Stratofortress from Barksdale AFB, La., landed on the flight line Aug. 27, a brake fire broke out in the wheel and tire assembly, threatening the lives of the seven aircrew members manning the aircraft.

Q uick, decisive action by two Airmen from the 2nd Aircraft Maintenance Squadron at Barksdale Air Force Base, La., doused a fire on a B-52H Stratofortress, and with the assistance of three more Airmen, saved all seven aircrew members aboard the bomber aircraft Aug. 27.

At 3 p.m., the B-52 was taxiing to its parking spot on the flight line after landing. As maintenance crews were working in the area and the crew chief was preparing to receive the aircraft, they noticed a puff of smoke. As the aircraft was finally parking and setting the brakes, the Number 3 brake caught on fire.

Airman 1st Class Elias Delarosa was the crew chief marshaling the aircraft and, along with Staff Sgt. Mark Corral, grabbed the fire bottle and rushed to the aircraft.

"When I saw the fire, my mind immediately raced to the refresher training I had just received earlier that morning," Delarosa said. "I was thinking about the acronym that goes along with using the fire bottle, and instinct kicked in."

The acronym from the fire portion of the annual maintenance refresher training is P.A.S.S. — pull, aim, squeeze and sweep — and that is exactly what Delarosa did.

"We've all gone through the training, so we know the video well," Corral said. "He did exactly what the video example shows and got down on one knee to control the hose, going through all the motions to sweep the fire."

During this quick transition of tasks, another 2nd AMXS crew chief, Staff Sgt. Billy Campbell, gave the aircrew the emergency signals to shut down the engines and exit the aircraft. The 96th Aircraft Maintenance Unit production super, Master Sgt. Kevin Rowe, and the 2nd AMXS crew chief expediter, Staff Sgt. Brad Davis, assisted the aircrew from evacuating the flight deck.

"When the ground emergency started happening, the first thing I thought was to get the area safe and set up a cordon before the fire department arrived," Rowe said. "As Delarosa was situating the fire bottle, we were getting everyone out of the area, getting the crew off the jet and to a safe location and everything else just kind of flowed."

While the first bottle was getting close to empty, both Rowe and Davis rushed to a nearby aircraft to shut down the refuel and evacuate the personnel. They brought an extra fire bottle back to Delarosa and Corral. As they were getting it into position, the fire department arrived and took over.

When the emergency was contained and all personnel were safe, the aircrew and maintenance personnel involved were taken to flight medicine, evaluated and released back to duty.

"In events like this, you don't know what's going to happen; you just react," Rowe said. "These guys did exactly what they were supposed to do, and I'm very proud of them. Tomorrow, we go on with normal business and a reminder that refresher training is just as important as our daily tasks to accomplish the mission."

SAVE B-52H BOMBER, AIRCREW

By Staff Sgt. **AMBER CORCORAN**

Photo by Staff Sgt. **CHRISTOPHER BOITZ**



Five heroic maintainers, led by Airman 1st Class Elias Delarosa (front), acted quickly by evacuating the aircrew and controlling the fire until the Barksdale Fire Department arrived.

Damages to the brake and wheel and tire assembly, which will need to be replaced, are estimated at more than \$20,000.

"We as Airmen are faced with a choice. We all think, hope, pray that when it comes to our turn... that we're going to do these heroic things," said Col. Andrew Gebara, 2nd Bomb Wing commander. "We never know, though, until we're finally tested and we have to rely on our training and courage just as these Airmen did when they made the choice. These things can get out of control very quickly, and this emergency could have easily caused more extensive damage and possibly funerals. On behalf of the aircrew and the men and women of the bomb wing, we thank you for making the choice."

Sergeant Corcoran is with 2nd Bomb Wing Public Affairs at Barksdale AFB, La. (AFGSCNS)



Sitting on jacks, the B-52H bomber awaits maintenance after the brake fire that started while it was taxiing down the runway. The Number 3 brake, wheel and tire assembly was damaged, totaling more than \$20,000 in replacement parts and repairs.

BRAIN LESIONS IN SPY PLANE PILOTS?

UPGRADES IN U-2 TARGET DECOMPRESSION SICKNESS

BEALE AIR FORCE BASE, Calif. (ACCNS) — There are a multitude of potential risks that exist while flying at more than 70,000 feet, and many of them have substantial consequences. Decompression sickness and brain lesions were two of the chief concerns for U-2 “Dragon Lady” pilots flying within an arm’s reach of the stars.

Commonly referred to as DCS, decompression sickness generally begins with the formation of nitrogen bubbles in blood or body tissues, and is caused by inadequate elimination of this dissolved gas after exposure to extreme pressures.

Between May 2011 and October 2012, the Air Force conducted MRIs on 105 U-2 pilots, ranging in age from 26 to 50, said Dr. Stephen McGuire, a neurologist and retired Air Force colonel who led the study. Of those pilots, 75 percent had more brain lesions than they should for their age and current health, according to a report in the *Air Force Times*. These are the same type of lesions caused by repeated head trauma, the report said.

Thanks to an Air Force-wide effort, Cabin Altitude Reduction Effort (CARE) modifications have been implemented into 27 U-2 airframes, reducing the altitude equivalent within the cockpit from 29,500 feet, roughly the height of Mt. Everest, to 15,000 feet, while at altitude. The CARE modification reinforces the airframe structure, replaces valves, changes the bleed air system logic, and alters cockpit controls.

DCS was a major concern U-2 pilots faced prior to the CARE modification, according to Lt. Col. Brian Musselman, 9th Physiological Support Squadron commander.



BY STAFF SGT. BRIAN FERGUSON



BY AIRMAN 1ST CLASS BOBBY CUMMINGS



BY SENIOR AIRMAN LEVI RIENDEAU

An U-2 Dragon Lady takes off from Osan Air Base, South Korea. The spy plane flies at altitudes above 70,000 feet, which poses unique risks to its pilots. C.J. Gaecke (bottom left) a Lockheed Martin structure mechanic, explains Cockpit Altitude Reduction Effort modifications made to an U-2 airframe on June 25 at Beale AFB, Calif. This aircraft was the last of 22 to receive such modifications at Beale. The upgrades seek to eliminate the risk of decompression sickness and hypoxia. Staff Sgt. Nikolina Kreager (bottom right), a life support specialist with the 99th Expeditionary Reconnaissance Squadron at an air base in Southwest Asia, ensures an U-2 Dragon Lady pilot is set for the day’s mission by checking the flight suit to ensure it can pressurize properly at high altitudes.

worked 10-hour shifts for six days a week from September 2012 to June 2013. To complete the project, an additional five airframes received CARE modifications at Program Depot Maintenance in Palmdale, Calif.

Each aircraft modification took 33 days to complete. At any given time, four aircraft were simultaneously receiving modifications, which minimized aircraft available for missions.

“Maintaining the health of our pilots is paramount,” said Col. Chad Clifton, 9th Maintenance Group commander. “An unhealthy pilot force would have substantial negative effects on mission capability. The CARE modifications are a game-changer for the U-2 community.”

— Airman 1st Class Bobby Cummings
9th Reconnaissance Wing Public Affairs

The total cost of the CARE program for the 22 aircraft that received modifications here was \$8.7 million.

“It’s heartening to know even in these financially constrained times money is being utilized to ensure the safety of our pilots,” said Lt. Col. Colby Kuhns, 1st Reconnaissance Squadron commander. “Since the CARE modifications have occurred, there have been no reported DCS incidents.”

U-2 pilots reported an increased number and severity of neurological DCS incidents during 2002-2009 compared to earlier periods. The CARE modification seeks to eliminate the risk of DCS.

“To eliminate the risk of DCS for U-2 pilots is phenomenal,” Musselman said. “It’s an operational solution for a human performance issue.”

Lockheed Martin maintenance crews



BY TECH. SGT. STEVEN PEREZ

Using an UH-1N Iroquois helicopter (like the one in this file photo) to traverse tricky terrain, four Airmen from the 36th Rescue Flight at Fairchild AFB, Wash., extracted an injured horseback rider stranded in the mountains near McCall, Idaho. It was the flight's 683rd rescue.

MOUNTAIN RESCUE!

FAIRCHILD HELICOPTER CREW SAVES INJURED HORSEBACK RIDER IN IDAHO

FAIRCHILD AIR FORCE BASE, Wash. (AETCNS) — Airmen from Fairchild Air Force Base rescued a 66-year-old man July 21 near McCall, Idaho, after he was thrown from and kicked by his horse, severely injuring his hip and leg.

The victim, John Beeh of Weippe, Idaho, was on his way via horseback with his wife and another couple to camp at 20-Mile Lake when the incident occurred. For 26 agonizing hours he lay on a steep, rocky hillside while rescuers struggled to find a way to save him. He was on the lower edge of a bowl-shaped portion of the mountain just downhill from the lake, unreachable by car or all-terrain vehicle.

Neither local officials, nor a ground rescue team could extract Beeh. Running out of options, the Idaho County Sheriff's Office contacted the Air Force Rescue Coordination Center at Tyndall AFB, Fla., which contacted Fairchild's 36th Rescue Flight. Four Airmen were then dispatched to the area in an UH-1N Iroquois helicopter.

Once they arrived on scene, they were time constrained because of fuel and had to expedite the extraction.

"My co-pilot, Captain Tyler Rennell, did an excellent job providing a solid hover for the dual pickup," said Maj. Brent Golembiewski, aircraft commander. "We were low on fuel, and the actual extraction point was a small rocky area roughly [5-by-20] feet surrounded by 100-foot-tall dead pine trees ... not



COURTESY PHOTO

Recovering from a broken femur at his home in Weippe, Idaho, John Beeh uses a walker to get around. Airmen from Fairchild rescued the grateful 66-year-old man after he was kicked by his horse and spent 26 agonizing hours on a steep, rocky hillside in rugged terrain near McCall, Idaho.

exactly easy to do. But, overall, it was a great mission, and I'm proud to be part of such an exceptional crew."

Once safely hovering, flight engineer Tech. Sgt. Kenneth Griego lowered independent duty medical technician Master Sgt. Joseph Brownell roughly 200 feet through a 10-by-10-foot window to Beeh.

"It was a very tight opening," Griego said. "Luckily we were able to lower Brownell down where the victim was already on a backboard. He re-evaluated Beeh's injuries, loaded him onto the stokes litter, and then attached himself with a harness to the litter for a dual pick up. This was my first save; I couldn't have done it without the expertise of my crew and medic."

Recovering at home from his injuries, Beeh said he is extremely grateful for the Fairchild crew.

"Heck yeah, I'm glad the Air Force showed up to help me," Beeh said. "I didn't know how everything was going to turn out. Now thanks to the Air Force, I'm still alive. They did one whale of a job!"

Georgia, his wife of 49 years, also is glad the Fairchild crew showed up.

"There was no other way he was going to get out of there," she said with more than a little relief in her tone. "I'm so glad they were able to help us through this awful experience. I was in awe at what they did for him. He owes them his life."

The rescue took nearly three hours from the time the 36th RQF received the call to the time the helicopter crew transported Beeh to St. Joseph

Hospital in Lewiston, Idaho.

Beeh spent three days in the hospital, then moved back home to recover from a broken femur bone and other bumps and bruises.

This most recent rescue was the flight's 683rd.

— Scott King
92nd Air Refueling Wing Public Affairs