Air Education and Training Command's

TORCH

November/December 2008

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It's a dangerous world we live in, and pararescue students at Kirtland Air Force Base, Texas, are being trained to face the worst of it. Their training includes a heavy dose of risk management, but there also is this hard truth: To save lives, they must be willing to put themselves in harm's way ... anywhere, anytime.

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A family of five sat at a stoplight on their way home from a dinner out and a day at the swimming pool. They never saw the three teenage boys speeding toward them in an illegal street race ... on an 80 mph collision course that would end in tragedy.

20 THE GHOST OF 'JENNY'

Courtesy Angelo State University

On March 25, 1919, a Curtiss JN-4D "Jenny" biplane crashed on takeoff in a field near Eden, Texas. Nearly 90 years later, the "ghost" of Jenny still has a story to tell as modern-day safety experts study the clues of the mishap and piece together a puzzle that can help today's aviators.

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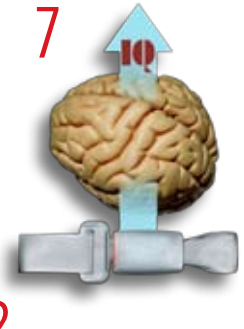

Cover photo by Tech. Sgt. Matthew Hannen
Back cover digital composite by Sammie W. King

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FROM THE
DIRECTOR

By Col. **John W. Blumentritt**
AETC Director of Safety

FROM DOT TO DIAMOND

To many, the town of Eden, Texas, is a dot on a highway map. However, I remember as a 16-year-old novice driver, who had yet to learn Air Force flight and fuel planning techniques, anxiously nursing my red pickup toward this "dot" with my fuel gauge hovering around empty. As I gingerly cleared one last cotton farm and mesquite pasture, this small town and her gas stations, brimming with 68-cents-per-gallon petrol, seemed to sparkle like a diamond.

In the 30 years since this "running-on-fumes" experience, my skills and appreciation of flight and fuel planning have matured considerably. Likewise, my knowledge and admiration of Eden also has grown. It is indeed a diamond in military, aviation and flight safety history.

In 2007, the town honored retired Maj. Gen. James Earl Rudder, a native son of Eden born in 1910, by rededicating a park in his name. Rudder served with great distinction in World War II and later as president of the Texas A&M University system.

Eden is also the boyhood home of Gen. Ira C. Eaker. A life-long advocate of airpower, Eaker served as a key commander in World War II. Indeed, his legacy is well documented on a Texas historical marker in downtown Eden.

"The Air Education and Training Command safety team sifted through clues from the 1919 crash and pieced together a nearly 90-year-old puzzle with a fascinating outcome."

Finally, 2nd Lt. Philip R. Meyer, one of our nation's aviation pioneers, made an interesting impact on Eden's colorful history in the area of flight safety.

On March 25, 1919, Meyer flew to Eden in a Curtiss JN-4D "Jenny" biplane – the first airplane to touch down in the town. With no real runway, he performed takeoffs and landings from a nearby field. Unfortunately, he crashed the plane on this same visit, which resulted in Eden's first flight mishap. Thankfully, he was not injured.

In 2007, an Eden resident asked if we had any details on this 1919 mishap. It took some time to track information down, but it was worth the effort. The Air Education and Training Command safety team sifted through clues from the 1919 crash and pieced together a nearly 90-year-old puzzle with a fascinating outcome.

The results from our "investigation" can be found on page 20 of this issue. As you will see, lessons learned from this mishap in Eden have become diamonds in flight safety that are keenly appropriate to today's aviators.

A VOICE FROM VIETNAM

Excellent article on Drs. Peter Nash and Vernon Wagner ("Message from 'Nam," cover story, September/October 2008 issue). It's a miracle that Dr. Nash survived his aircraft crash. And thank God he did! It sounds like he's made a huge difference in regard to flight safety and flight medicine, and his contributions are still helping to save the lives of aviators even today.

His lessons learned from the crash experience were open and honest, even when it came to critiquing his own performance in the jet. Not everyone is so willing to put themselves out there like that.

Thanks for such an interesting article.

Lt. Eddie Sanchez
Via e-mail

I just read your article about 1st Lt. Peter Nash and his experience ("Message from 'Nam"). It appears that Dr. Nash was able to get back in the "front seat" as a pilot physician, and the story talks briefly about the contributions he made with his unique perspective. … I'd love to talk to him about it. I'm with the 434th Fighter Training Squadron, and there are still a few of us pilot-physicians out there trying to make a similar impact.

Maj. Jay "Bones" Flottmann
Laughlin Air Force Base, Texas

I am an Air Force retiree employed by the Lockheed Martin Corporation. I'm a former aircrew member of the 345th Tactical Airlift Squadron, a unit that has been deactivated. Periodically, the 345th has reunions, the last one in Las Vegas. I've been trying to find former members of the unit to build our database.

While reading the September/October 2008 Torch, I ran across Dr. Vernon Wagner's name in your cover story, "Message from 'Nam." He is one of the people who I have been looking to find for quite some time. You can check out our Web site at www.345TAS.org. Thanks for the story.

Retired Senior Master Sgt. Les Chalfant
Cabot, Ark.

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.

A 'COMICAL' CRITIQUE

I found the "Torch Talk" letter titled "A Disappointing Read" (September/October 2008 issue, page 2) to be comical. I do not believe that what the writer said matched the overall intent/message of the article ("Too Much Chlorine in Pool Leaves Combat Controllers Coughing, Vomiting," May/June 2008 issue, page 5).

First of all, the article wasn't even about the rescue effort; it was about the results of the mishap investigation. Then the writer claims, "The article I read mentions nothing about the hospital, ER or its medics." However, the second sentence of the second paragraph clearly states, "Fifteen of the students were transported to Keesler Medical Center for evaluation and treatment."

At least the guy's heart was in the right place — he wanted to get more press/recognition for his people. I don't fault him for that. I just think he missed the whole point of the article.

Junior Taylor
Los Angeles

FLYING ANTIQUES

by Tech. Sgt. Matthew Hannen

I hope the government starts getting you guys newer planes (reference, "Old Airplanes and Staying Safe in the Real World," September/October 2008 issue, page 8).

I hate to see our military members risking their lives because we are making them fly in "antiques." Not to mention, how are we supposed to stay the dominant airpower if we aren't modernizing our aircraft fleet?

A big thank you to our military members for all the sacrifices they make for our country.

Carl Bennett
Via e-mail

by Sammie W. King

'HE GOT WHAT HE DESERVED'

In reference to the article "Man Head-butts Pit Bull, Loses Ear" (September/October 2008 issue, page 6), what a moron! He got what he deserved. Actually, he deserved to have both ears and his nose chewed on for head-butting that poor animal. I was glad to hear the dog didn't get punished for the man's foolishness and cruelty. I've read similar incidents where they end up putting the dog to sleep … not fair! I hope the man has learned his lesson. You need to treat animals with respect and kindness.

Sherrie Collins
Via e-mail

MORE INFO ON ENGINE FAILURE?

I really enjoyed your article "A Perilous Path" in the July/August Torch (page 18). Do you have any additional information concerning the cause of the T-6 Texan II engine failure?

Thanks for a very well-written article.

Howard Reeser
Luke Air Force Base, Ariz.

The mishap is still under investigation, and we are awaiting final confirmation of cause. Any anomoly or abnormal performance of an aircraft engine is cause for concern. However, 19th Air Force and Air Education and Training Command leadership is satisfied all appropriate safety measures have been taken fleetwide while the investigation continues.

by Tech. Sgt. Matthew Hannen

POUNDING THE MESSAGE HOME

I saw the story "Patrol Vehicle Involved in Three-car Accident" in the May/June 2008 edition of Torch (page 5) on the security forces member involved in a mishap while responding to a silent alarm. We're planning to use that information in a PowerPoint presentation to emphasize the importance of wearing seat belts.

Although the mishap resulted in significant property damage, because all Airmen involved were wearing safety belts, injuries were relatively minor. The message that seat belts save lives, even in significant mishaps, is a message I am trying to pound home with all Airmen at the 72nd Air Base Wing.

Lt. Col. Thomas E. Painter Jr.
Tinker Air Force Base, Okla.

by Rich McFadden

AIR FORCE CIVILIAN DROPS 120 POUNDS!

CHARLESTON AIR FORCE BASE, S.C. (AMCNS) — Tipping the scale at 365 pounds on a 5-foot-10-inch frame, Dominick Ward began working for the Air Force in 2003 as a civilian. Today he is 120 pounds lighter.

A forklift operator assigned to the 437th Logistics Readiness Squadron at Charleston Air Force Base, S.C., Ward made a New Year's resolution at the beginning of 2007 to lose 80 pounds.

With a few base wingmen by his side to show him how to lose the weight safely and an Air Force instruction in his favor allowing him time to exercise, he surpassed his goal by losing a total of 120 pounds by March 2008 and now weighs 245 pounds.

And he's not done yet. He said he hopes to lose another 30 pounds to take him down to a final weight of 215 pounds.

"It's easier to move around now, and it's easier to climb on the back of trailers at work to load and unload what we're delivering around the base," Ward said.

He credits Air Force policy for his "down-sizing."

In accordance with Air Force Instruction 36-815, Chapter 8, Excused Absences, 8.1.1, "installation commanders or heads of service organizations may excuse civilian employees for physical fitness activities up to three hours per week based on mission and workload requirements. Participation is strictly voluntary."

Ward used this benefit to work out at the base's fitness center five days a week. He said the extra three hours of excused absences per week, used in conjunction with his lunch hour, helped to keep up his new exercise routine. He went from couch potato to two miles of running and a half hour of weightlifting, using different muscle groups, during weekdays.

He also had a few wingmen helping him along the way. One of those people, Staff Sgt. Tavarus Williams, a fitness specialist with the 437th Force Support Squadron, taught him the ropes on ways to work out safely and use equipment at the gym.

"I give orientations at the fitness center to people who are new and want to know how to use the equipment so it encourages everyone to stay fit to fight," Williams said. He added that mission accomplishment depends on a fit force.

"Fitness is very important for (the health of) Airmen and civilians," the fitness instructor said. "I'm very proud of Mr. Ward for how far he's come and that he stuck with it."

— Airman 1st Class Melissa White
437th Airlift Wing

by Staff Sgt. Angelita Lawrence

***As part of his workout regimen**, Dominick Ward lifts weights a half hour a day, five days a week at the fitness and sports center on Charleston AFB, S.C. Along with a daily two-mile run, this exercise routine has led to his dramatic weight loss of 120 pounds ... and counting!*

5 TIPS TO EXERCISE WITHOUT INJURY

1. Do a proper warm-up for at least five minutes. This can include a brisk walk, running in place or jumping jacks to allow the muscles to warm. Warm muscles perform better than cold ones and help prevent injury.

2. Stretch carefully. Stretching cold muscles can cause injury, so stretch after doing your warm-up. This helps loosen the muscles and takes pressure off of the joints.

3. Listen to your body. When working out, stay within your physical limits, and don't try to push through an injury.

4. Cool down for at least five minutes. During the cool-down, lower the intensity of the exercise to allow the heart to slow down and muscles to calm.

5. Stretch again after finishing the workout. Keeping flexibility is key to preventing injuries.

***A motorcycle ride that exceeded 140 mph** ended with a technical sergeant and a group of his friends behind bars, but in hindsight, the Airman says his incarceration probably saved his life.*

by Tech. Sgt. Matthew Hannen

140 MPH 'JOY RIDE'
LANDS AIRMAN AND FRIENDS IN JAIL

HURLBURT FIELD, Fla. (AFSOCNS) — Police radar clocked us traveling in excess of 140 mph. That proved fast enough to earn me and my motorcycle buddies a trip to jail.

While I won't say I enjoyed being incarcerated, I can say in hindsight that the officers that put us behind bars probably saved our lives.

Our day of reckoning started with a noble cause. I had planned on helping someone in need by supporting a motorcycle charity ride Aug. 17 in Mobile, Ala. A group of us prepared to leave Fort Walton Beach, Fla., around 8 that night to meet up with other riders from the local community.

On the way to Mobile, I noticed the posted 70 mph speed limit sign on Interstate 10. Our group was already traveling at a speed greater than that, and frankly, greater than what would be deemed safe. That's when we encountered the Alabama state troopers and were arrested for reckless driving.

First and foremost, I would like to apologize for my actions on that day. Riding motorcycles can be dangerous when using good judgment. That risk increases exponentially when you start making dumb decisions.

Ironically, I attended the motorcycle safety course and have been riding motorcycles for more than 20 years. Why would someone with that much experience choose to cruise at such a dangerous speed?

The fact is, I got caught up in the moment, and I felt invincible. I never believed anything bad would happen to me.

I was wrong.

My friends and I were very lucky to just be stopped and taken to jail. If we were able to continue on, who knows what might have happened? We could have died or harmed others.

As I sat in the police station, I had time to reflect back to my best friend who had been traveling on a motorcycle and accelerated to a speed of 170 mph. He ended up hitting a car and died at the scene of the mishap. That could have been me.

Not only did I let myself down that day, I let down the people who put their faith in me to make the right decisions … from my wife, to my kids, to my co-workers.

Not only was I jailed, but I ended up on the local TV news and had to pay fines, court costs and attorney fees. Sure I am embarrassed, ashamed and angry with myself, but this was a far better scenario than my family getting a phone call telling them I'd been killed or seriously injured in a motorcycle accident … especially under the circumstances.

I'm so thankful that I was able to return home later to my wife and kids.

I hope this message hits home to all motorcycle riders and helps them understand younger riders are not the only ones capable of using poor judgment. Experienced riders like me can fall into the same trap.

— Tech. Sgt. Keith Cole
1st Special Operations Support Squadron

"As I sat in the police station, I had time to reflect back to my best friend who was on a motorcycle traveling at a speed of 170 mph when he hit a car and died on the scene. That could have been me."

HOT LEAD

POTBELLY STOVE 'SHOOTS' WOMAN

SEKIU, Wash. — A 56-year-old woman here "accused" a cast-iron potbelly stove of "shooting" her in the leg Oct. 5.

Cory Davis told the Peninsula Daily News that she had just finished stoking the fire in the stove she used to heat her home when something inside it suddenly exploded.

She heard a firecracker-like bang, and then felt something strike her on the inside of her left calf.

"I kept thinking, 'Geeze, that was one fast hot coal flying at me,' " she told the Daily News.

But it turns out, the projectile that led to the stinging pain and bleeding in her leg wasn't a chunk of hot coal at all.

It was "hot lead!"

A .22-caliber rifle bullet to be exact.

Davis reported that a case of ammo had spilled in her home, nearly a month before. She thought she had recovered all the ammunition, but it appears one of the cartridges had fallen into the newspaper she used to light the fire in the stove. It stayed hidden there until she accidently placed it in the stove, along with a handful of newspaper.

The heat from the flames caused the cartridge to explode, and, "Of course, it got me," she said.

According to the Clallam County Sheriff's Department, Davis said she removed the metal fragment from her injured limb early in the morning on the day of the mishap. She went to the Forks Community Hospital the next day, where a doctor cleaned the shallow wound and gave her a tetanus shot. Davis must have done a good job removing the slug fragment from her own calf, as the doctor found no other remnants of the bullet and released her later that same day.

Nevertheless, the hospital contacted the sheriff's department because the doctor was concerned the bullet may have been discharged from a firearm, a spokesman for the sheriff's department said. Ultimately, the police declared it an unfortunate accident.

The Daily News reported that a similar incident injured a hunter several years ago. In that case, ammunition had fallen into a fire while the hunters were sleeping. One of the hunters was hit in the leg.

Despite her aching leg, Davis told the Daily News she has managed to see the humor in it all.

"How many people get shot by (their) stove?" she said, laughing.

No charges were filed against the stove.

— From staff and wire reports

GUNS & AMMO

Store ammunition and guns in safe locations. Guns and ammo should be locked in safe locations so that unauthorized people (like kids) can't get to them. Also, both should be clean and dry before being stored. And, of course, you shouldn't leave ammo near hot surfaces — *like stoves or campfires!*

Inspect ammunition before use. Take the time to look at your ammo before using it, especially after it has been in storage for an extended period of time. If you notice any defects or corrosion, don't use it.

Use only the correct ammunition for your gun. Only BBs, pellets, cartridges or shells designed for a particular gun can be fired safely in that gun. Most guns have the ammunition type stamped on the barrel. Ammunition can be identified by information printed on the box and sometimes stamped on the cartridge. Do not shoot the gun unless you know you have the proper ammunition.

— National Rifle Association

DRIVING IQ RISING?

SEAT BELT USE HITS RECORD LEVEL IN 2008

WASHINGTON — More Americans are buckling up than ever before, with 83 percent of vehicle occupants using seat belts during daylight hours this year, U.S. Secretary of Transportation Mary E. Peters announced.

In 2007, 82 percent used seat belts.

"More and more Americans are realizing that the mere seconds it takes to buckle up can mean the difference between life and death," Peters said.

The National Highway Traffic Safety Administration estimates that nearly 270 lives are saved for every one percent increase in belt use. Along with aggressive safety awareness campaigns to help educate drivers, acting NHTSA Administrator David Kelly said a contributing factor for such historically high seat belt use is high-visibility law enforcement efforts, such as the department's "Click It or Ticket" campaign.

"We are committed to supporting state and local law enforcement in their front-line efforts to encourage belt use," Kelly said.

According to the report, 84 percent of passenger car occupants are buckling up. Even more people, 86 percent, are buckling up in vans and sport utility vehicles, while pickup truck occupants buckled up 74 percent of the time.

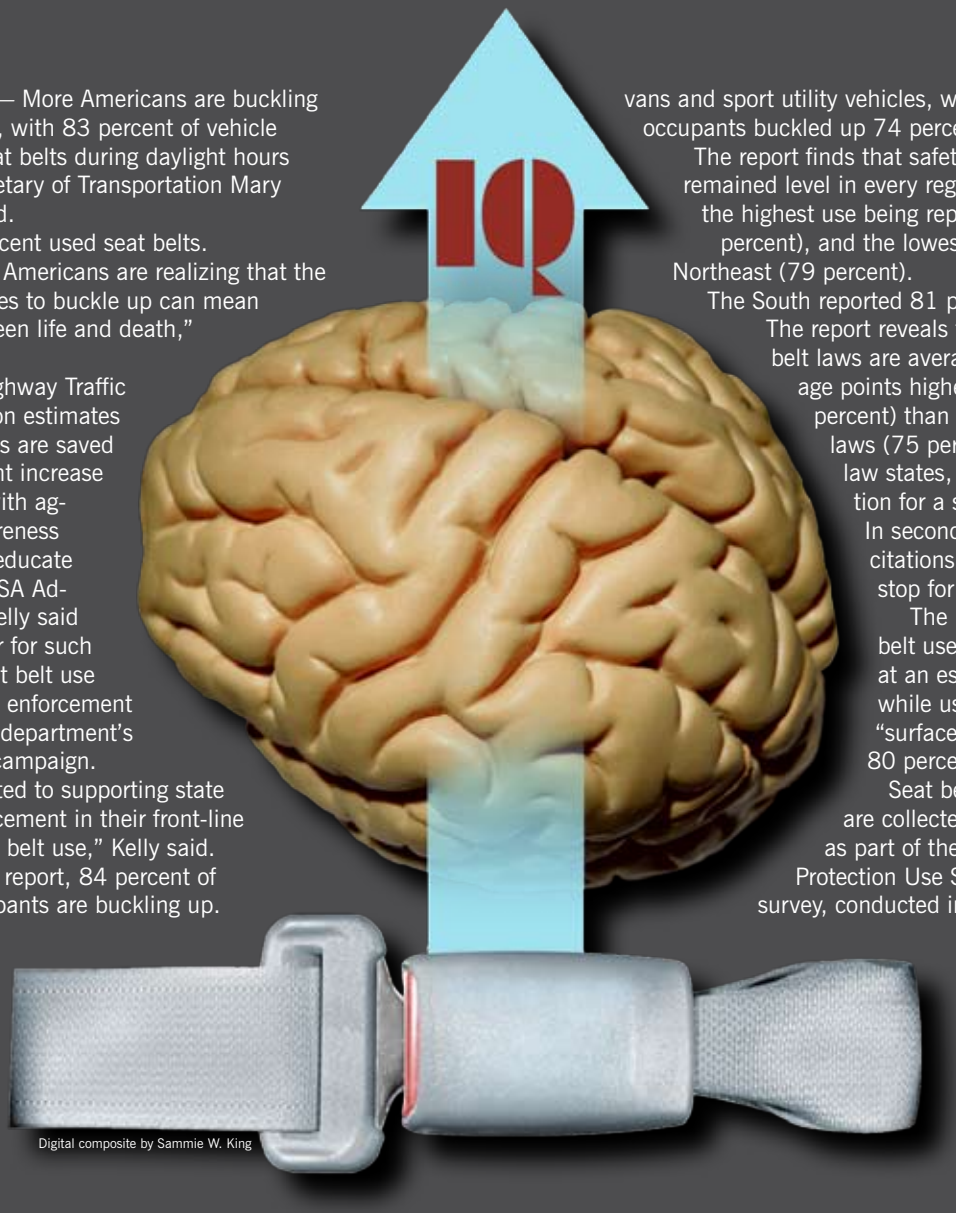
The report finds that safety belt use increased or remained level in every region of the country, with the highest use being reported in the West (93 percent), and the lowest in the Midwest and Northeast (79 percent).

The South reported 81 percent.

The report reveals that states with primary belt laws are averaging about 13 percentage points higher for seat belt use (88 percent) than states with secondary laws (75 percent). In primary belt law states, officers can issue a citation for a seat-belt violation alone. In secondary law states, seat belt citations are allowed only after a stop for another violation.

The report also notes that belt use on expressways is now at an estimated 90 percent while use on lower-speed "surface" streets remains at 80 percent.

Seat belt use and other data are collected annually by NHTSA as part of the National Occupant Protection Use Survey. The latest survey, conducted in June, involved daylight observations of vehicle occupant behavior at more than 1,800 sites nationwide.



Digital composite by Sammie W. King

SEAT BELT SAVVY

- This year a national survey shows that 83 percent of vehicle occupants nationwide are using seat belts during daylight hours, which is a higher rate than at any other time in U.S. history.
- Traffic safety experts estimate that nearly 270 lives are saved for every 1 percent increase in belt use.
- To see the latest seat belt report, go to the Web link at *www-nrd.nhtsa.dot.gov/pubs/811036.pdf.*

— National Highway Traffic Safety Administration

They Man an 'ANYWHERE AMB

Pararescuemen get it done in air, on land and at sea

Story and photos by Tech. Sgt. MATTHEW HANNEN

Trying to stabilize an injured helicopter pilot, *Senior Airman Jackson Rogers' medical skills are tested to the limit during a field training exercise for pararescue students at Kirtland AFB, N.M.*


ULANGE'

Senior Airman Jackson Rogers was ready to blow chunks. The C-130 Hercules he'd hitched a ride on flew several low-level passes in bad weather, causing a lot of turbulence. By the time the cargo plane reached the drop zone, the bumpy ride had made Rogers seriously airsick.

All he could think about was getting off the aircraft.

That, at least, would happen quickly. Training to be a pararescueman, jumping out of perfectly good airplanes is part of the trade. Since this elite brotherhood of warriors is tasked with the recovery and medical treatment of personnel in humanitarian and combat environments, in essence they man an "ambulance" that goes anywhere and everywhere a person could imagine.

As such, Rogers had jumped out of a C-130 before, but this time he admits he was distracted by his queasy stomach.

"I got tunnel vision," he said. "Instead of thinking about the correct body position I needed during the jump and going through the motions, I just wanted to get off that aircraft so I could feel better."

As a result, his body position was poor when he hit the slipstream, and he lost control of his jump. He flipped up through the risers, which connect the parachute to the harness. His right leg got snagged, twisting his knee badly enough to break a piece of bone off. The parachute, which was hooked to a static line, deployed while he was still upside down.

In excruciating pain as he dangled from the chute, he realized he still needed to land on his damaged limb.

"So I got very focused very quickly, and went step-by-step through my training to perform as perfect a landing as I could," he said.

Before he even hit the ground, he had learned an important lesson in risk management: Think before you act.

"I'll never make that mistake again," he said.

Pain and humiliation can be good teachers. Rogers was embarrassed because he failed in his training mission objective, which was to recover a downed pilot and provide medical attention. Instead, he was the one in need of medical attention and recovery. He realized if he'd made that mistake in a real-world environment, he could have cost the pilot his life.

He had plenty of time to think about that blunder as he recovered from his injury. To rub salt in the wound, graduation day for him was delayed six months.

But thankfully, graduation day did come. Rogers is one of 11 Air Force students who attended the Pararescue/Combat Rescue Officer Apprentice Course with Detachment 1, 342nd Training Squadron at Kirtland Air Force Base, N.M., earlier this year.

Carrying a "patient" up a mountain path *for nearly two miles, Airmen 1st Class Mark Lillmars (bottom left) and Jared Stidham labor in the 100-degree New Mexico heat. As part of a training exercise, the pararescue students had to get the heavy mannequin to a waiting CV-22 to medevac their "injured patient." Below, students treat a wound.*

Pararescue students work as fast as they can *during a mass casualty exercise that simulated an explosion on base at 4 in the moring. At bottom, the number of wounded can be overwhelming in this realistic training scenario. Top left, Rogers carries an injured Airman to safety and then works feverishly to treat the injuries (top middle). Top right, students carry a wounded warrior on a litter, as they rush to a safe area to administer medical care.*

"When your mind is not where it should be, people could lose their lives."

Before graduating, the trainees had one final hurdle called the field training exercise. This exercise combines all the pararescue apprentice course training blocks together in medical rescue missions and evaluates the students to ensure they retained the information and knowledge they were taught throughout the course, said Master Sgt. Todd Popovic, course superintendent.

"It takes everything they have learned up to this point and gives it to them in a fire hose effect," Popovic said. "It's sensory overload for them, but that is what we want to see. We want to give them as much experience in wartime scenarios as we can before they go out to Iraq or Afghanistan and do it for real."

Popovic says they call this training "dirt medicine."

"Basically, we take what they already learned in paramedic medicine and give it a wartime twist," he said.

"Wartime twists" include tactics, jumping out of aircraft, navigating and firefights with the enemy, just to name a few.

"From the beginning, pararescue students and combat rescue officer candidates are exposed to high-stress situations," Popovic said. "They are told when your mind is not where it should be, people could lose their lives. All high-risk activities are rehearsed and briefed several times before the students actually conduct the event. Nevertheless, there is still that chance that something will go wrong. But when that something does go wrong, the lessons that we have taught them take over, and they adapt and overcome."

Rogers got a chance to prove this theory and gain redemption.

Six months after the injury that sidelined him, the 22-year-old found himself on a similar training mission to recover and medically attend to a downed pilot. As he reached the drop zone, he mentally got his 5-foot-10-inch, 168-pound frame ready for the jump from the aircraft.

"Legs together, feet and knees together, hands on the side of my reserve, bend slightly at the waist, hold that position tightly," he thought.

He wanted to show his instructors that this soybean and rice farmer from Des Arc, Ark., was ready for real-world missions.

He executed a near-perfect jump, landed like a pro and provided spot-on first response medical care, saving the pilot.

His comeback complete, Rogers graduated Sept. 12, joining an elite fraternity. Shortly thereafter, he, along with his wife Jennifer and 1-year-old son Jake, headed for his first assignment as a full-fledged, maroon-beret-wearing pararescueman with the 33rd Rescue Squadron at Kadena Air Base, Japan.

For the time being, he'll man an "anywhere ambulance" in the Pacific.

***Graduating Sept. 12**, pararescue students went through at least 18 months of rigorous training, learning everything from sky diving, scuba diving, combat rescue, conventional medicine, combat medicine and much more.*

He Makes 'HOUSE CALLS'

To save the lives of others, Airman must risk his own

By **Tim Barela**
Illustration by **Ken Chandler**

In a world that can sometimes seem callous, it's nice to find a medical professional who still provides care the old school way. … He makes "house calls."

Meet Master Sgt. Davide Keaton.

He's an Air Force pararescueman, which is basically an emergency medical technician who should have a big "S" tattooed on his chest. That's because to do his job sometimes seems to require super human abilities, such as being bulletproof.

The "neighborhood" he serves is global — anywhere, anytime and under any conditions. That could mean jumping out of perfectly good airplanes, diving into raging seas, navigating the world's deadliest terrain in either freezing or scorching temperatures, and fighting off a fierce enemy who is shooting at him while he tries to provide medical care.

Case in point.

In October 2007, Keaton was on a night patrol with an elite special forces unit in Afghanistan looking for "bad guys." They found some. Taliban rebels ambushed his team with small arms fire and rocket-propelled grenades.

As the pararescueman's unit repelled the surprise attack and things began going bad for the enemy aggressors, the desperate rebels turned to a deplorable tactic. They used Afghani women and children as human shields.

Keaton sprang into action.

First he ran 150 meters to a 7-year-old boy who had been shot in the groin, with the bullet exiting his lower back. The Airman placed his body between the child and enemy gunfire while he frantically worked to stop the bleeding. Then he picked the boy up and carried him another 30 meters to safety.

Again exposing himself to Taliban marksmen, he ran to the aid of a 10-year-old boy and 11-year-old girl, both of whom had been shot in the arm. He hauled them to safety and treated their injuries. He also tended to the girl's mother, who'd been grazed by bullets.

And still he wasn't finished.

Next, he found a 13-year-old girl who had been shot in the abdomen and administered medical aid.

When it was all said and done, he had managed to save the lives of one woman and four children, while somehow evading gunshot wounds of his own.

Why did Keaton expose himself to enemy gunfire? It's not that he has a death wish. As a matter of fact, he very much wants to live. That's why he works out nearly every day, which helps him traverse terrain so dangerous it could snap a mountain goat's surefooted limbs. He carries extra water because he knows dehydration can be a killer every bit as deadly as Taliban forces. He ensures his personal protective gear, such as body armor and helmet, is used and maintained. And he relies on his rigorous tactical, navigational and medical training to get him out of tough scrapes.

But Keaton, who is assigned to the 24th Special Tactics Squadron at Pope Air Force Base, N.C., also lives by the rescue code: "That Others May Live."

In short, that means if he has to put his life on the line to save others, he's going to do it without giving it a second thought.

It's not something he brags about. As a matter of fact, one of his least favorite chores might be to talk about himself — not even in Italian, which the Torino, Italy, native speaks fluently. Maybe that's because so many of his stories would require a top security clearance to hear.

But even the ones he can talk about, like his heroic actions in Afghanistan, he prefers to downplay by pointing out that other guys are working just as hard as him and "it's a team effort." Even while taking on a "Superman" role, he deflects attention by marveling at the strength and courage of the wounded Afghani women and children.

"They didn't scream or get hysterical," he said, admiringly. "They remained so calm it was surreal. I guess they are used to it after a lifetime of living around war. They are a tough people."

Keaton could have been describing himself. He is unique even among his peers. At 40 years old and nearly 22 years in service, he's still in a young man's "game." That means he has to keep his 5-foot-11-inch frame in top condition at a muscular 200 pounds. For the former wrestler, boxer and cross-country runner, that's a task he enjoys more than most. But it still takes a mental and physical toughness to achieve.

Nevertheless, he knows his days as a combat pararescueman are numbered. The past two years he's been deployed nearly 640 days. Even with his understanding wife, Marcia, whom he married in May, that's a long time to be separated from family. And age and career tenure will eventually catch up to him. He admits, though, it will be hard to walk away from the profession for which he's sacrificed so much.

"There's God, my wife and then this job," he said, listing the things that are most important to him in life. "I love what I do."

For now, the world is a little better off because Keaton and others like him continue to make global "house calls."

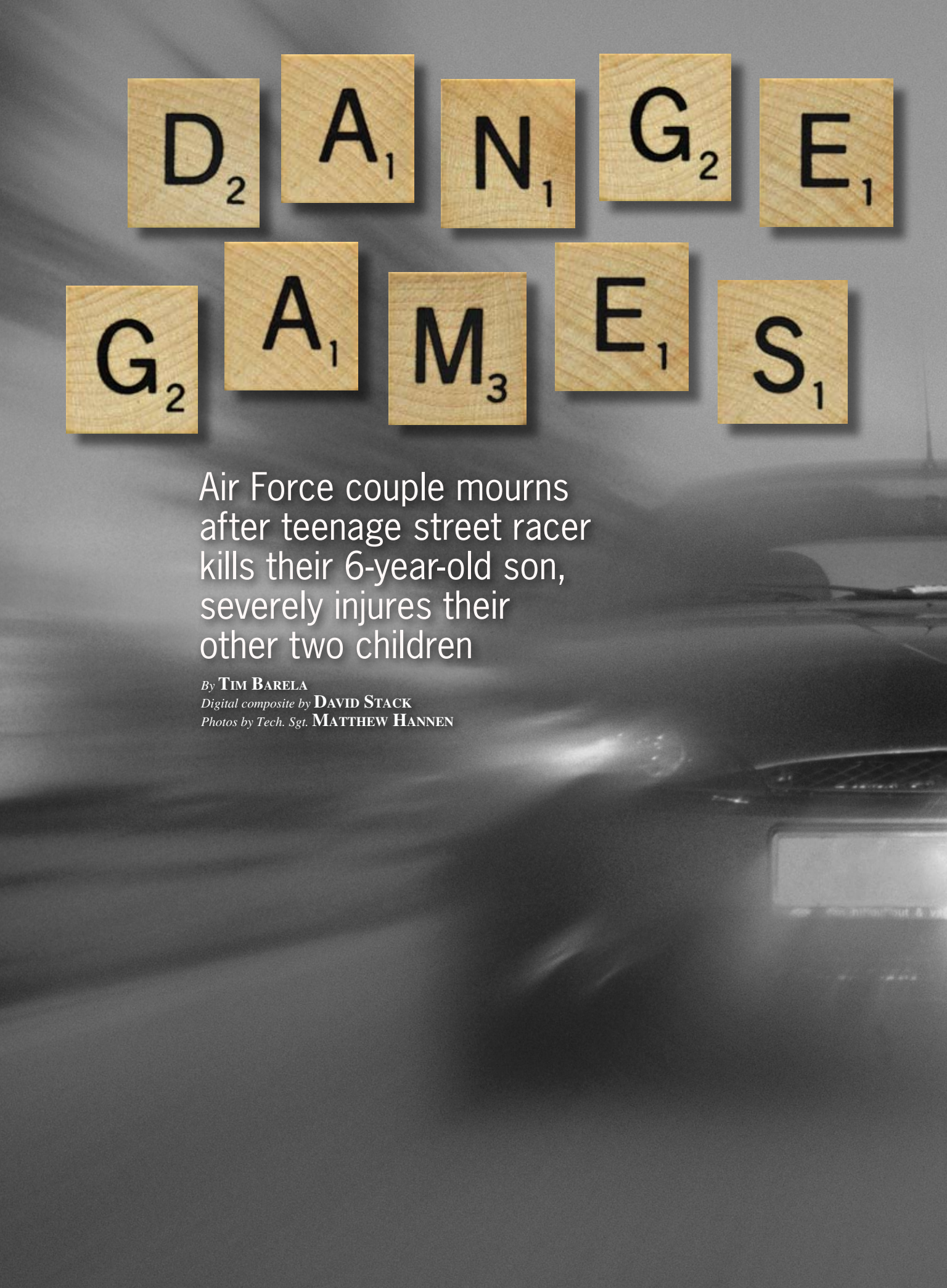
We should all be thankful.

by Tech. Sgt. Matthew Hannen

Pararescuemen train to face the world's worst dangers *— day or night. That intense training helps them save lives … sometimes against all odds.*

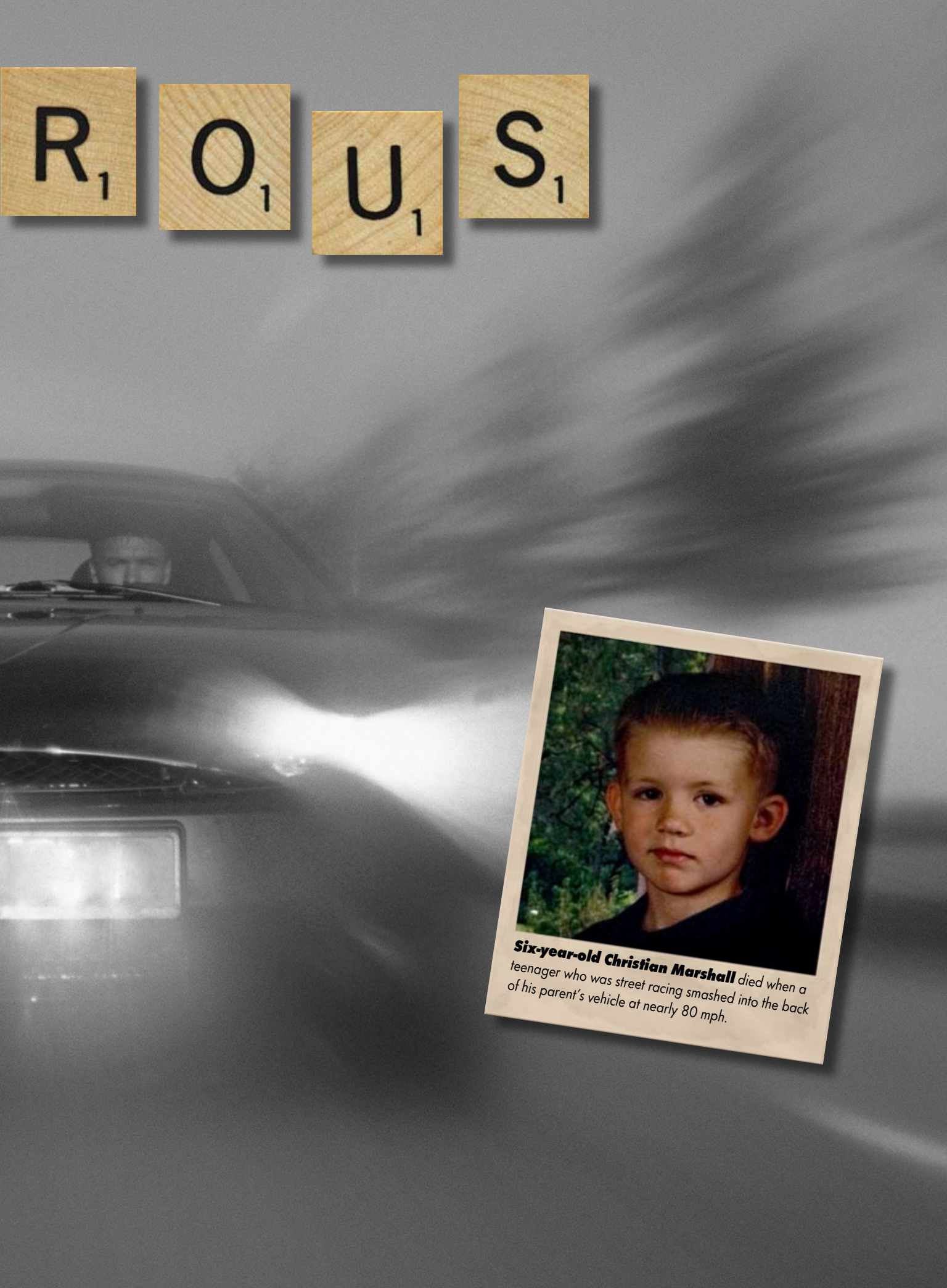
EDITOR'S NOTE: In September, Keaton received the 2008 Air Force Sergeant's Association Pitsenbarger Award for his heroic actions during the shootout with Taliban fighters. Marcia, who he'd wed only three months earlier, had to pick up the award for her husband at a ceremony in San Antonio. Not surprisingly, Keaton was already on another deployment to Afghanistan. … He volunteered.

"As the pararescue-man's unit repelled the surprise attack and things began going bad for the enemy aggressors, the desperate rebels turned to a deplorable tactic. They used Afghani women and children as human shields."



Air Force couple mourns after teenage street racer kills their 6-year-old son, severely injures their other two children

By **Tim Barela**
Digital composite by **David Stack**
Photos by Tech. Sgt. **Matthew Hannen**



Six-year-old Christian Marshall died when a teenager who was street racing smashed into the back of his parent's vehicle at nearly 80 mph.

Tech. Sgt. James Marshall blinked his eyes open as if stirring from a dream. Little did he know that he was awakening to a nightmare.

Groggily, he took in the scene around him … doctors, nurses, his boss from the Whitehouse Communications Agency where James worked for the president. He turned his confused gaze to the left. His eyes settled on Sheyna, his bride of eight years, lying unconscious in a small bed next to him with an IV connected to her arm.

As the fog in his brain began to clear, fear settled in, and James started blurting out questions to which there were no easy answers.

A doctor tried to explain, but it would take weeks for the horrible truth to fully surface.

He and his family had been sitting at a stoplight in Waldorf, Md., on Memorial Day (May 29, 2006) after a nice dinner out. They were on their way back home to Bolling Air Force Base, Washington D.C., about 30 minutes away. Without warning, another vehicle, occupied by a teenager who had been street racing with some buddies, slammed into them at nearly 80 mph.

As the back half of their Oldsmobile Alero crushed like an aluminum can and flipped over, James and Sheyna were both knocked unconscious.

Their three children, who were strapped into car seats in the back of the vehicle, fared much worse.

Makenna, their 2-year-old baby girl, had a broken nose and two busted legs — a fractured femur in her right leg, and tibia and fibula fractures in her left. She'd be in a full body cast from her armpits to her toes for seven weeks. She'd have to learn to sit up, crawl, stand and walk all over again, but at least she'd fully recover.

Her older brothers wouldn't be so lucky.

Justin, less than a week after his 5th birthday, had a broken right leg. Leaking gasoline chemically burned 30 percent of his body. But the nastiest wound had been delivered to his head, where nearly the entire right side of his skull shattered. He suffered a severe traumatic brain injury that put him in a coma for six weeks, partially paralyzed the left side of his body, and caused permanent physical and mental disabilities.

Then there was Christian, a month shy of his 7th birthday, who died at the scene from blunt force trauma.

Adding to the family's misery, a mix-up in the identification of the two boys had them thinking it was Justin who had died and Christian who was fighting for his life. A week later, Sheyna, who had suffered a severe concussion that caused major memory loss, was well enough to leave her hospital room. She visited her still swollen and bandaged son in intensive care, and surprised nurses when she told them, "That's not Christian; that's Justin."

"The whole ordeal was so surreal," James said, slowly shaking his head. "You already mourn one son's death, only to find out he's alive, and it's actually the other one who's dead."

How were the parents supposed to feel? Happy because the son they thought had perished is alive? Sad because the son they thought had survived is actually dead?

"I was just numb," James said quietly. "You already feel like you don't know what the hell is going on with your children, and you're scared to death. I think I was in shock."

"You don't know what to do, how to feel," said a tearful Sheyna. "You fall apart, get hysterical. Then, you have to be strong because you still have two children who are fighting for their lives. So you focus on their recovery, and maybe that's the only way you keep your sanity."

Two and a half years after the accident, the Marshalls have made a home in Converse, Texas. James works with the Air Education and Training Command Computer Systems Squadron at Randolph AFB, Texas.

NO WINNERS

"Christian died. Justin is permanently disabled. Our family will never be the same. … And Willie Johnson, the teenager responsible for it all, was sentenced to prison for 10 years even though he never set out to hurt anyone. There were no winners in all this."

— Sheyna Marshall

Justin looks at a replica of his shattered skull. *An implant now protects his brain on the right side of his head.*

Justin, now 7, endured six surgeries and has at least two more on the horizon. The right side of his head has a large C-shaped scar where a polymer resin implant replaced a fist-sized portion of his skull. The first grader should be glowing with all the X-rays and CT scans that he's endured.

Walking with a severe limp and unable to use his left hand, Justin still goes to physical and occupational therapy once a week. Until about two months ago, he suffered four or five seizures a day. He now has to be drugged to control the seizures, but those same meds impede his ability to learn. And he has had to relearn everything … to walk and talk again. To chew and swallow. Even to breathe on his own again.

"Immediately following the crash, he was basically a 5-year-old infant," Sheyna said.

All this misery and for what?

The answer isn't easy to swallow. Three teenage boys got off work and decided to street race just for the fun of it.

"They weren't malicious, and they didn't set out to kill anyone," James said sternly. "But someone died anyway because they treated their cars and the streets like some sort of video game."

Two of the teens, who were considered minors at ages 16 and 17, did not get punished by the law. But 19-year-old Willie Johnson, who was the one who actually lost control of his vehicle and smashed into the Marshalls, went to trial as an adult. He pleaded guilty to manslaughter by automobile, earning him a decade behind bars.

"If people walked in our shoes for just a few minutes, they'd never treat driving like a game again," James said.

He and Sheyna try not to dwell on the circumstances surrounding the mishap that forever scarred their family.

Instead they celebrate every obstacle that Justin is able to overcome. They cherish every moment with Makenna, now 5, who is flourishing, with nothing to show from the accident but a small scar on her right leg. Not to mention, the couple has added a new addition to their family, 8-month-old daughter Brooklyn.

And every day they think of Christian, a sweet kid with a big heart. Christian, their little stuntman, who against his parents' objections would come blazing down the street on his bike with his feet on the center bar, hollering, "Look, Mom, no feet!" Christian, who felt *sooooo* big when he helped his dad turn a wrench or two on his '69 Mercury Cougar. Christian, who played video games like he had a bee in his britches, jumping and gyrating, as if his motions would affect the outcome. Christian, who loved to dance to any kind of music … but did so badly, even by the admission of adoring parents.

"We didn't give him the dancing gene," Sheyna said, chuckling and crying in nearly the same breath.

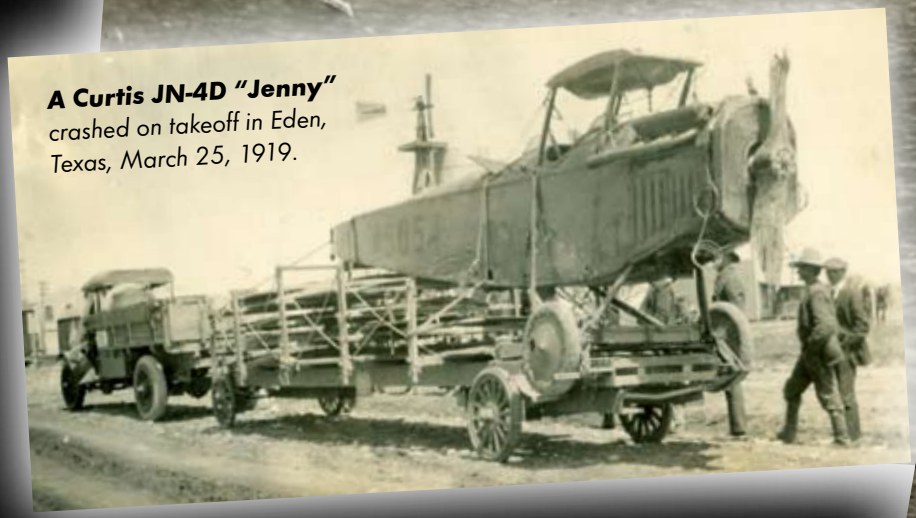
Then, she opened up the backpack Christian had brought home from school the Friday before the accident. She took out his progress folder, which featured firewall pluses from his teacher for behavior that day. Christian had proudly drawn a smiley face by each plus because he knew how happy they'd make his mom and dad. With a lone tear streaming down her cheek, Sheyna then gently removed his jacket from the backpack, and, ironically, a crossing guard reflector belt that her son wore while helping to protect other children from motorists.

"Christian died," she said as her voice cracked. "Justin is permanently disabled. Our family will never be the same. ... And Willie Johnson, the teenager responsible for it all, was sentenced to prison for 10 years even though he never set out to hurt anyone. There were no winners in all this."

Partially paralyzed on his left side, *Justin doesn't let that slow him down as he plays here with his sister, Makenna, and his dad, Tech. Sgt. James Marshall.*

THE GHOST OF 'JENNY'

Ninety years later, aircraft still has story to tell



A Curtis JN-4D "Jenny" crashed on takeoff in Eden, Texas, March 25, 1919.

By Col. **John W. Blumentritt**
Photos courtesy of **Angelo State University**

With almost 600 hours of flight experience, 2nd Lt. Philip R. Meyer remained confident when he spied an obstruction 500 feet down the makeshift "runway." After all, it was just a fence. To clear it, he'd have to get the aircraft to at least 45 mph, but he had plenty of open pasture to reach that speed.

As he thundered his Curtiss JN-4D "Jenny" biplane toward the fence, with the engine producing a healthy 1,400 rpm, onlookers from the Texas town of Eden spurred him on with their enthusiasm — it was the first plane to visit their community. Meyer knew one valve on the motor was not quite right, but he had full confidence in the airplane. In fact, the aircraft was brand new and had been thoroughly tested just 17 days prior. Moreover, the pilot and mechanic inspected the plane before the flight.

Little did Meyer know, however, his airplane was not going to soar that day … or ever again. For in seconds, he would make flight safety history.

The date was March 25, 1919.

A closer look at this mishap began in September 2007, when Carolyn Moody, the president of the Eden Heritage Preservation Association, provided the Air Education and Training Command Safety Directorate with copies of photos from the Annie Justice and Emsy Swaim Papers, West Texas Collection, Porter Henderson Library, Angelo State University, San Angelo, Texas. Seven tattered photos, with scribbles on the back, were the only evidence initially available to shed light on this historical tale.

It took about a year, but with help from the Air Force Research Agency, Suzanne Campbell of Angelo State University, and Michael Stowe's *Accident-Report.com*, another look at the mishap became possible. And while the almost 90-year-old documents found are hard to read and incomplete in some places, it became clear that similarities between this mishap and today's flying operations exist.

Decades after 1919, Hollywood stunt pilot Frank Tallman seized an opportunity to fly an antique Jenny. In describing his takeoff, he said, "I was airborne in about 250 feet, apparently with a speed of about 43 mph. The climb was as slow as a man going to a funeral."

But for Meyer and his 1919 takeoff roll in Eden, 250 feet of pasture came and went, but a safe liftoff speed did not.

"What's happening," he probably thought as the fence loomed closer. "Engine is fine, I'm into a light wind, and there is sufficient room. … I'm doing everything we learned at the Air Service Flying School at Kelly Field, but this isn't working out!"

To the horror of the Eden spectators, Meyer attempted a last second, low-speed "hop" but struck the fence. As the plane nosed over, the whirling propeller chopped into earth like a giant lawnmower blade. It simultaneously splintered, shooting thousands of sharp wooden daggers in all directions. The nearly 2,000-pound plane then rolled on its back, which threatened to crush Meyer. And like a Jenny crash that same day at Wright Field, Ohio, in which the 21-gallon fuel tank ruptured and burst into flames, the lieutenant was in danger of burning to death.

Meyer could have been impaled, crushed or burned like many of his peers were in similar mishaps in those days. As a matter of fact, AETC Commander Gen. Stephen R. Lorenz mentioned in a recent AETC News Service article that his grandfather participated in "too many funeral processions when he attended pilot training in 1919."

Meyer, however, had luck on his side as he remained uninjured.

The badly damaged airplane was not as fortunate. A local blacksmith clicked a picture of the remains being trucked from downtown Eden, and today, an almost 90-year-old scribble on the back of that photo reads, "Eden's first airplane leaving in disgrace."

An accident investigation board, consisting of two captains and two lieutenants, under the direction of Col. J.E. Fechet, the commander of the Air Service Flying School, convened on April 1, 1919, at Kelly Field. The board determined the mishap "was caused by the ship striking soft ground on take-off, which was not visible from the starting point, causing the ship to lose flying speed before reaching a fence, which it struck and turned over on its back."

Ninety years later another "board" convened Nov. 5 in the Headquarters AETC Safety Directorate. Although more like a modern-day working group, experts included AETC's flight safety division, the aerospace medicine division chief and the command's safety functional manager. The group reviewed mishap details associated with this 1919 crash in an effort to learn from the past.

As the plane nosed over, the whirling propeller chopped into earth like a giant lawnmower blade. It simultaneously splintered, shooting thousands of sharp wooden daggers in all directions.

Without a doubt, this mishap was caused by the improper execution of a soft field takeoff. Soft surfaces hinder acceleration, so adequate liftoff speed may not be possible to attain with normal techniques. Flight instructors stress that if pilots do not reach an adequate velocity by a preplanned "go/no-go" point, they should abort the takeoff.

During the post-mishap interview, Meyer told the investigation board that because of the unanticipated softness of the ground, he did not have "enough speed when he got to the fence." However, he said that his attempt to hop the fence was unsuccessful, which suggests he pulled back on the stick despite his low airspeed. This is problematic because an attempt to climb prematurely, or too steeply at a low speed, may cause the airplane to settle back to the surface or stall.

The aircraft's specifications and operating instructions, which pilots were tasked to study at least once a week, points out the dangers of a low-speed takeoff. In fact, it suggests that while 45 mph is the minimum speed for flight, pilots should keep the plane on the ground until a liftoff speed of 75 mph.

Recall from Tallman's flight in an antique Jenny that he became airborne in about 250 feet with a speed of about 43 mph. Certainly, Meyer had to know something was wrong when half his takeoff surface was behind him and he was still slowly sloshing forward toward the fence.

Why didn't he abort the takeoff?

Would you have aborted?

We will never know the answer to the first question, but the second one is more important. In fact, the literature is filled with academic studies, mishap reports, regulations, safety manuals and even eulogies that attempt to address why some pilots make the decision to leave the ground, in unfavorable conditions, while other pilots do not.

Interestingly, one frayed photo shows more than 60 people appearing quite impressed with this marvelous machine. Moreover, the victory of World War I and the emergence of airpower were fresh in the minds of Americans. Finally, this was the first time a pilot with airplane visited this patriotic community. Indeed, March 25, 1919, was a big deal in Eden, Texas.

Would you have aborted the takeoff on this ceremonious day and in front of this admiring crowd?

Dr. Tony Kern, in his 1998 book *Flight Discipline*, describes a hazardous attitude known as "airshow syndrome." In a nutshell, Kern says this dangerous condition occurs when aviators succumb to the temptation to "show their stuff" to family, friends or adoring crowds. Caught up in the excitement, they might push the envelope beyond their abilities or the capabilities of the aircraft. Or they might ignore factors such as weather or other unfavorable conditions, because "the show must go on." Tragically, and far too often, the "show" the audience sees is not the one intended, Kern says.

Could Meyer have been influenced during his take-off attempt in unfavorable conditions because he simply didn't want to disappoint an adoring crowd?

We'll probably never know.

Nevertheless, Kern says aviators can avoid the pitfalls of "airshow syndrome" by developing, briefing and flying a safe plan for all flights." After all, he added, "the crowd will likely not know the difference, unless you end the show in a smoking hole."

HOW TO AVOID 'AIRSHOW SYNDROME'

- Ensure you understand and review all regulations and restrictions associated with an event — don't wing it or get caught up in the crowd's enthusiasm.
- Develop and practice a profile that does not exceed your limitations, or those of your aircraft.
- Build in a margin of safety.
- Develop, brief and fly a safe plan for all flights.
- Avoid the temptation to "show off" in front of family, friends or an adoring crowd.

— Tony Kern, author of the book Flight Discipline

KILLER CLAMS?

WHAT'S MAKING THESE SHELL FISH A THREAT TO THE AIR FORCE'S MOST ADVANCED FIGHTER?

By Tech. Sgt. **Russell Wicke** / *Photo by Tech. Sgt.* **Ben Blocker**

Free-falling clams dropped by in-flight birds are regular air-threats to the high-tech F-22 Raptor.

Gulls drop fist-sized mollusks on the Langley Air Force Base, Va., runway to break open the shell-fish appetizer — nothing personal. But their shelling device just happens to be a convenient launch pad for aircraft in the 1st Fighter Wing.

The gulls remove half their mess, slurping up tender meat from the runway — but they leave behind hard, brittle seashells for an F-22 to suck up through its engine. Although the Air Force is wildlife friendly, Lt. Col. Lawrence Spinetta, 1st FW safety chief, isn't willing to let a $10.2 million engine go to the birds — or the clams.

That's why Langley operates an aggressive flight-safety program to mitigate the bird and wildlife aircraft strike hazard, better known as BASH.

"BASH is particularly important for Raptors because they are so expensive," Spinetta said. "If we lose one aircraft, it costs the Air Force and taxpayers $135 million."

Wildlife Biologist Tom Olexa, U.S. Department of Agriculture at the 1st FW, said most wildlife threats to aircraft are birds; although, deer, coyotes, turtles and even clams, are also foreign-object threats.

"A key component of BASH is to ensure the safety for our pilots and aircraft," Olexa said. "But we also want to protect (wildlife) from being struck by our aircraft."

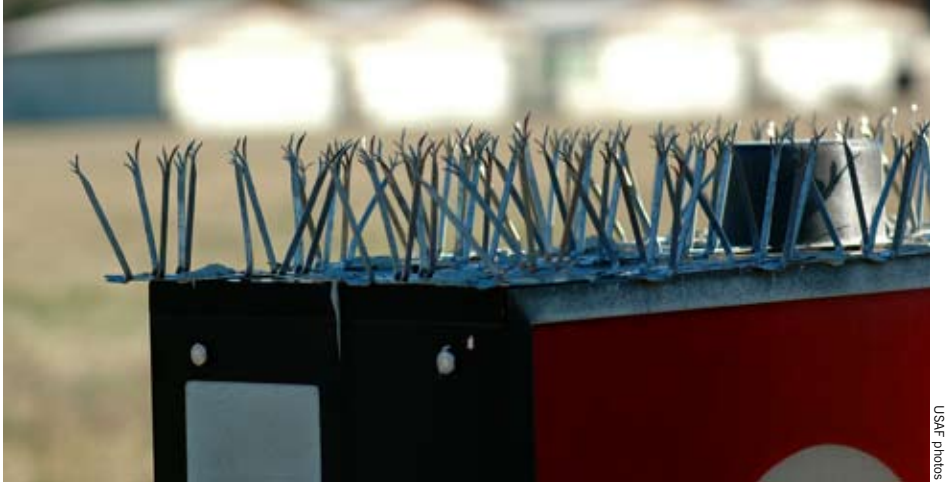
But "aircraft conservation" is a priority on Air Force bases, Spinetta said, because Air Force "birds" belong to taxpayers.

"A little sparrow may not seem like it's a threat to a 60,000-pound aircraft, but it is — particularly if it gets sucked down the intake," the colonel said.

Even if a bird strike doesn't cause a crash, damages can soar into the millions.

The Federal Aviation Administration claimed birds cost the civil aviation industry about $600 million per year. The Air Force alone coughed up roughly $16 million in 2007 from bird strike damages. Only a few types of birds account for the majority of the damage. Certain species in particular do more than peck at the Air Force wallet.

For example, the turkey vulture alone accounts for nearly 800 strikes and more than $51 million in Air Force flying history, according to Dan Sullivan, Air Force BASH deputy chief and wildlife scientist. It ranks No. 1 in Air Force bird strikes.



USAF photos

***On final approach**, Lt. Col. Dirk Smith, 94th Fighter Squadron commander, and Maj. Kevin Dolata, 94th FS assistant director of operations, prepare to land on the runway at Langley AFB, Va. Landing at Langley is much safer nowadays because of the base's aggressive bird aircraft strike hazard program.*

However, the most expensive bird is the American White Pelican. In only 18 strikes, this bird accounts for more than $257 million in damages. Sullivan said this cost is attributed to the size and weight of the bird — a whopping 20 pounds, compared to an average five pounds for the turkey vulture.

"The black vulture and turkey vulture are the greatest threat to Air Force aircraft overall because they are somewhat large and soar at high altitudes — about 3,000 feet," Sullivan said. "During the day, as the air warms up, they ride a rising thermal draft. Their high altitude makes them hard to detect from the ground."

He added these vultures, among other avian species, are increasing in population because of U.S. conservation efforts.

Other threatening birds at high altitudes include all raptor species. Sullivan said these birds also are increasing in numbers because the United States stopped using dichlorodiphenyltrichloroethane, a pesticide known as DDT. The cessation of DDT use was necessary, he said, because it threatened the once-endangered bald eagle. But an offshoot of this action means the Air Force shares more of its air space.

And sharing air space with birds is a moderate concern to Air Force pilots.

"I think it would be a life-changing event to have a five-pound Canadian goose smash through your windshield at 400 knots," said Spinetta, who is also an F-15 pilot.

No pilot wants to share the cockpit with fowl, but avoiding birds in midair is nearly impossible, Spinetta added.

"It's very difficult (to dodge a bird) at the speeds we're going (350 to 400 mph at low altitude)," said Capt. Ray Thaler, 1st FW F-22 pilot and chief of flight safety. "(With) birds being very small, you never usually see them until the last half-second."

The problem is, he said, a single bird can take out an entire engine or could break through a canopy and hit the pilot. This becomes more serious in single-engine aircraft like the F-16.

Almost nothing can be done, short term, to avoid high-altitude strikes. But Langley's BASH team is heading up a project to track Ospreys, the fifth most-dangerous bird species to aircraft, Spinetta said. He added that there are more than 72 Osprey nests within a 20-mile radius of Langley.

To mitigate the growing threat, the 1st FW, NASA and USDA came up with a unique way to track the Osprey.

"Captured birds were fitted with GPS-capable transmitters ... (that) transmit the altitude, speed and direction of travel of each bird every two hours," Spinetta wrote in an editorial for the Flight Safety Magazine. "As a result, Langley has been able to pinpoint nests and focus its reduction, suppression and prevention efforts to eliminate many Osprey hazards."

The nests are usually relocated to safer areas by USDA members.

Other more traditional techniques for eliminating hazards involve harassing birds on the airfield, Olexa said. He added that the most common tool is simply a combination of pyrotechnics and artificial bird distress calls, known as bioacoustics.

"The trick is to make the airfield less attractive to wildlife," Sullivan said.

He explained that one way is by planting certain grass species that cause an upset stomach to geese. Another example is to avoid planting fruit/nut producing trees. The Langley BASH team also covered tall airfield objects with spiny metal strips or cone-shaped devices to deny perching.

***Spiny metal strips** (above) are tools used on flat surfaces near Langley's airfield to prevent birds from perching. Pointy cone devices (left) are placed on poles near the airfield, also to prevent birds from perching or roosting.*

From 1995 to 2000 Langley spent more than $1.6 million in aircraft damage from wildlife strikes. Since they employed the services of USDA in 2001, there was a 98 percent reduction in cost. From 2001 to 2006 wildlife strikes accounted for a mere $31,000.

"Pocket change," Spinetta said, compared to the previous five years' cost.

And that's why BASH and USDA Wildlife Services are partnered up — to save aircraft, pilots, birds ... and maybe even a few clams.

Sergeant Wicke is with Air Combat Command Public Affairs at Langley AFB, Va. (ACCNS)

BATTLE OF THE BIRDS

TURKEY VULTURE: The No. 1 struck bird, hit 776 times by Air Force aircraft and responsible for $51.7 million in damage.

BLACK VULTURE: The No. 2 struck bird, hit 403 times and responsible for $54.3 million in damage.

AMERICAN WHITE PELICAN: Caused the Air Force $257.6 million in damage with only 18 strikes. No other bird has cost the service more money.

CANADA GOOSE: Caused the Air Force $92.3 million in damage with only 129 strikes. They are the second most costly bird to the service.

MUTE SWAN: The largest bird threat to aircraft — an impressive 31 pounds of meat and beak.

Information (current as January 2007) gathered from the 1st Fighter Wing Safety Office, Langley AFB, Va.; U.S. Department of Agriculture; and the Air Force BASH Team at Kirtland AFB, N.M.

File photo

Black Vulture

CLEAR THE RUNWAY

QUICK ACTION HELPS GUARD CREW AVOID C-130 CRASH

LITTLE ROCK AIR FORCE BASE, Ark. (AETCNS) — What started as a routine training mission took a turn for the worse for the C-130 crew of "Props 76" seconds after takeoff from Little Rock Air Force Base in September.

As the Arkansas Air National Guard Hercules' propellers churned through the air toward the base perimeter Sept. 9., all four engines lost power — from 15,000 inch-pounds of torque to 10,000 inch-pounds of torque — causing the empty cargo aircraft to stop climbing into the clouds that overcast day and level off.

"You just don't see malfunctions that affect all four motors," Maj. Dean Martin, the 154th Training Squadron instructor pilot and aircraft commander on the mission, said as he reflected back on the flight.

At 800 to 1,000 feet over primarily wooded land, the crew didn't know it at the time, but they had only a few seconds to avert potential catastrophe.

Sitting in the right seat was Lt. Col. Rich McGough, Props 76 co-pilot who is also an instructor pilot in the squadron. Following his checklist procedures, he turned off the auxiliary hydraulic pump after the aircraft lifted off. Just after the colonel flipped the switch, the major noted that his vertical velocity indicator and collision avoidance system "went black." Both are on the same display in the cockpit.

"The auxiliary pump is the largest load on our electrical system," Martin said.

Master Sgt. Doug McGroarty, the flight engineer, switched the aircraft propellers to mechanical governing and turned the temperature datum system to null. That action, officials say, kept all four engines from flaming out, which could have resulted in a fiery heap of wreckage off the west end of the base's runway.

The temperature datum system controls the amount of fuel to the engines based on several engine parameters.

As soon as the flight engineer switched the system to null — essentially manually overriding the system — engines two, three and four roared back to life.

The crew's actions were crucial to avoid catastrophe, according to flight safety experts.

A representative of the engine manufacturer later said reducing the power would have caused all four engines to flame out, according to Martin. Failing to take manual control of the engines would have caused a flame-out within eight to 10 seconds.

"When (Sergeant McGroarty) brought the air turbine motor back online, Number One came back," the major said.

The crew was then able to turn around and land the plane back at the base.

The aircraft, a 1963 model, was impounded by maintenance for about two weeks as technicians and specialists studied and evaluated the cause. The culprit was a contact on a three-phase electrical bus that failed in one of the phases. Unfortunately for the crew of Props 76, it was on the essential bus, which runs several key components in the cockpit.

"At the time, it didn't seem like it was that big of a deal," McGroarty said, adding that he's been more scared in previous in-flight emergencies, such as one in which he experienced a fire in the cockpit.

With a combined 13,100 hours of flying time between the three of them, the flight engineer credited flying with a pair of experienced pilots as one of the reasons they were able to land safely on the ground. Martin has more than 4,200 hours in the air, McGough has more than 4,700 and McGroarty has more than 4,200.

Today, the aircraft is back in service, and the crewmembers are back in the air training students.

To alert others in the Air Force who fly the C-130, the wing's chief of safety generated an Air Force Safety Automated System report, coding the incident as one that has "high accident potential." That coding notified by e-mail each C-130 flight safety officer around the Air Force of the incident so that they could brief their crews to be on the lookout for a similar scenario.

— Master Sgt. Bob Oldham
189th Airlift Wing Public Affairs

***When all four engines of their aircraft lost power**, a C-130 crew with the Arkansas Air National Guard at Little Rock AFB, Ark., had to think fast to keep the cargo aircraft from ending up as a fiery wreckage.*

by Tech. Sgt. Matthew Hannen

by Lance Cheung

Contributing factors to a B-1B mishap at Guam *included a slight taxiway declination, failure of the aircraft to be chalked in a timely manner and the inability of firefighting vehicles to successfully clear the path of the rolling bomber aircraft.*

B-1B COLLIDES INTO TWO FIREFIGHTING VEHICLES AFTER BRAKING SYSTEM PROBLEM

LANGLEY AIR FORCE BASE, Va. (ACCNS) — A brake metering valve failure caused a B-1B bomber to collide with two aircraft rescue firefighting vehicles on March 7, according to an Air Combat Command accident investigation board.

The board determined the aircraft began to roll forward after engine shutdown at Anderson Air Base, Guam. Malfunction of the right hand brake metering valve caused depletion of the associated brake system accumulators, rendering the aircraft's brake systems inoperative when the engines shut down.

There were no injuries. Damage to the B-1B assigned to the 28th Bomb Wing at Ellsworth Air Force Base, S.D., and the two firefighting vehicles assigned to Andersen totaled $5.8 million.

According to the investigation board's report, contributing factors to the mishap included a slight taxiway declination, failure of the aircraft to be chalked in a timely manner and the inability of the firefighting vehicles to successfully clear the path of the rolling B-1B. The in-flight loss of the No. 3 hydraulic system because of improper swage operations and post-task inspection caused the initial in-flight emergency that necessitated landing at Andersen AB, so it also was cited as a substantially contributing factor.

LACK OF SITUATIONAL AWARENESS LEADS TO E-9 MISHAP

LANGLEY AIR FORCE BASE, Va. (ACCNS) — Lack of situational awareness caused the May 1 crash of an E-9 Widget at the Tallahassee Regional Airport in Tallahassee, Fla., according to an Air Combat Command accident investigation board report released in September. The aircraft's landing gear was not lowered for a touch-and-go maneuver during the routine training mission. There were no injuries or damage to civilian property.

According to the report, the board president found sufficient evidence to conclude checklist error and cognitive task oversaturation substantially contributed to the mishap. These factors, when combined, impaired the instructor pilot's ability to maintain situational awareness while providing flight instruction to the upgrade pilot.

The instructor pilot and aircraft were assigned to the 82nd Aerial Targets Squadron, subordinate unit of the 53rd Weapons Evaluation Group at Tyndall Air Force Base, Fla. The 53rd WEG reports to the 53rd Wing at Eglin AFB, Fla. The upgrade pilot is a civilian contractor pilot assigned to the E-9 Initial Qualification Program.

by Master Sgt. Michael Ammons

An E-9 Widget from Tyndall AFB, Fla., *crashed when the aircraft's landing gear was not lowered for a touch-and-go maneuver during a routine training mission.*