

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

Summer 2014



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Pilot avoids crashing into city
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Missing **DAN**

Air Force sergeant sacrifices himself to save daughter during tornado

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'BE BRILLIANT IN THE BASICS'

Safety commander discusses how to deal with tough times

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Fall from ladder shatters man's heel bone

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G, LET ME THINK

Proper fitness helps pilots avoid blackouts in cockpit

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F-35 LIGHTNING II



“Safety remains our top priority as the F-35 resumes development and training flights.”

— Col. Carl Schaefer

Air Force Joint Strike Fighter integration chief, following the aircraft's return to flight after a fleet-wide grounding in July because of an engine fire



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A fall from a ladder onto concrete shatters a man's heel bone into nine pieces. With six months to a year of painful surgeries and recovery ahead and no assurances that his foot will ever be the same, the Air Force retiree reflects on what went wrong.



BY SENIOR AIRMAN MONISE BELLEAU

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FROM THE DIRECTOR

By Col. **JAMES L. FISHER**
AETC director of safety



LIFE DOESN'T REWIND

We are in the heart of the Critical Days of Summer. This time has historically been the season when our service sees a significant increase in safety mishaps and a corresponding rise in lost lives and shattered families. As the critical days campaign kicks off Memorial Day weekend (toward the end of May), our senses are heightened as the cautions come fast and furious through articles, commander's calls and other venues. But as the summer days turn into weeks and months, it can cause our focus to wane a bit, our vigilance to ebb. As a matter of fact, in the past 10 years, 58 percent of Air Education and Training Command's summer mishap fatalities occurred after July 15 – the second half of the critical days. In the past five years, that number has jumped to an alarming 71 percent! Finishing out the last half of the Critical Days of Summer is when we have been most vulnerable. And for some of us, we never get a second chance.

That's why this year at Headquarters AETC Safety we are striving to keep our edge throughout the summer with a new campaign titled "Life Doesn't Rewind." AETC Commander Gen. Robin Rand kicked off the campaign with a video, which highlights the idea that no matter how much we might like to, we can't go back and change our poor decisions after we know the outcome of a situation. Our "Life Doesn't Rewind" video series can be found on the AETCFirstCommand YouTube site.

"No matter how much we might like to, we can't go back and change our poor decisions after we know the outcome of a situation."

In most mishaps, as you look back and investigate them, there is usually a chain of events or decision points that lead to the mishap. It is very rare that only one significant misstep or bad decision leads to a catastrophic ending. In most cases, multiple factors, whether environmental, human or mechanical, combine to put someone into a position where a mishap is bound to happen. Usually, when you look back, if any one of those "links" in the chain had been broken, a mishap could have been avoided. Unfortunately, we normally are only looking backward after a mishap has occurred.

As we progress through the summer, you will plan family vacations while the kids are out of school. You will participate in fun outdoor activities both on the water and on land, whether rafting, boating, swimming, backpacking or riding off-road motorcycles. Additionally, you will be exposed to the summer heat of South Texas, Arizona, Florida or any one of our other AETC southern-tiered bases. At work, on the flight lines or in your industrial or other job areas, heat will be a significant contributor to your already demanding duty requirements. Please continue to use all your risk management techniques, identifying risks and implementing controls to mitigate them. Use these techniques in your work centers as well as in your off-duty pursuits.

While each of us works hard during the year so that we can enjoy our summer pursuits, the loss of a single Airman, family member or loved one might be avoided if we take the time to break the chain of events that leads up to a mishap. Please remember that "Life Doesn't Rewind" and give us the opportunity to look back at our bad decisions after the fact, so remain vigilant. Finally, while you are looking at your own decision-making and risk management techniques, be a good wingman and look out for your fellow Airman.

NO JUSTICE

Regarding the article "Drunk Driving Conviction" in your Fall 2013 issue ("Around the Command," page 4), I sat in the courtroom. I knew both of the Airmen (both the convicted and the deceased). I feel a great injustice happened — someone lost his life, and the one responsible will only serve 30 months or less.

To me Mike Brown's life was worth more than 30 months. This sentence doesn't convey that. His family — both civilian and military — misses him. This crime that resulted in his death changed all of our lives, our daily routines, our children, our parents, and everyone who knew Mike. Buddies who used to meet for Sunday breakfast no longer do so. Jokes told at work are gone. Christmas is not the same for his loved ones. Chili cook-offs are somber.

Yes, Senior Airman Anjelika Faul will be behind bars; but in less than 30 months, she will be able to have fun and be with her family. Mike Brown is in the cold, hard ground forever! His fiancé will never get the ring he bought for her. He will never laugh, smile or have fun again.



I hope everyone takes a lesson from this tragedy ... before you take even one drink, think! Ask yourself, "How will this impact not only my life, but possibly someone else's as well?"

*Tina Gaines
Via e-mail*



After reading the "Drunk Driving Conviction" article in the Fall 2013 issue, I am so saddened to know Air Force members (and civilians alike), still don't get it! You drink and drive and sooner or later there's a good chance you could take a life.

My prayers go out to the family of Mike Brown ... I'm just sick over his loss. I am also very disappointed to know Senior Airman Anjelika Faul, who pled guilty, only received a 30-month sentence for drunk driving and for taking the life of Mr. Brown. I think this sends a message to anyone in the

Air Force that you can drink, drive and kill and perhaps get off with just 30 months served.

Faul knowingly got behind the wheel after consuming "20 servings of liquor with very little to eat." If this happened in the civilian world, no punishment except life in prison would be acceptable for the loss of a life at the fault of an intentional drunk driver. I understand that life in prison does not bring back a loved one any more than 30 months in jail does, but I think this conviction sends a wrong message to Air Force members.

*Jo Rowe
Sheppard Air Force Base, Texas*

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)

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Sorry to hear you are no longer printing a calendar and (at least temporarily) a magazine (due to sequestration budget cuts). The Army went to an on-line magazine only, thus no one reads it any longer.

Overseas, troops crave hard copies. I have a rack on the hallway wall by the mess hall where I place your magazines. As troops are in line (to get grub), they see the magazines, which then go like hotcakes. Hope to have your magazine back on our shelves soon.

*Glenn M. Harman
New Kabul City, Kabul, Afghanistan*

Thank you for your feedback. We are happy to announce that we are back in hard copy ... for now anyway. Budget constraints have still eliminated the calendar, but the magazine will be printed quarterly. We appreciate your interest in Torch.

THIRD-WORLD COUNTRY?

No more Torch Calendar? This is the kinda (junk) that happens when a super power is on its way to becoming a third-world country.

*Ross "RV" Vance
Via e-mail*

FLYING OFF INTO THE SUNSET

Thank you so much for the T-38 Talon picture on the cover of your 2011 Torch Calendar. It's the sunset shot of the 50th Flying Training Squadron flagship in afterburner — beautiful!!!

I am retiring and will use this photo in my retirement ceremony. If I'm flying off into the sunset, this is the picture to show it.

*Lt. Col. Bruce Benyshek
Columbus Air Force Base, Miss.*



C-17 IN ACTION



I am the dedicated crew chief of the C-17 Globemaster III in the 2013 Torch Calendar (under the month of November). That is a great picture, and it's the only one I have seen of it in action.

*Gary Friedt
Altus Air Force Base, Okla.*

HAIR-RAISING

Your article "Of Bikes and Brains" (Fall 2013 issue, page 8) really struck a chord with me. As I read it, the hair raised on the back of my neck because I knew that could have been me.

No, I didn't drive drunk. But I was drunk with power. I was a 15-year-old kid riding a dirt bike with no helmet or any other protective gear for that matter. Who needed a helmet? At 15 you are invulnerable and hard-headed — unfortunately much more mentally than physically.

I remember riding my dirt bike down asphalt roads just to see how fast I could go. I wasn't supposed to be on the streets, nor was the bike ideally suited for the surface, but that didn't stop me. I would fashion jumps, and the more success I had, the more dangerous they got.

One day I was out riding alone (another no-no, but something I often did), and I saw some steep hills I just couldn't resist. I had to conquer them with my dirt bike.

I started climbing some of the small ones just to get my confidence up. But again, the more my confidence grew, the riskier my actions became.

I progressed until I came to the hill I'd had my eye on all day. Even at 15 and seemingly bulletproof, it made me swallow hard. It was steep, it was tall, it was unfamiliar, and I was ill-equipped — both physically with lack of personal protective equipment and mentally with lack of experience — to attempt such a climb. But I knew I was going to give it a try.



After being in a coma for nearly a month and spending 43 days in the hospital following a motorcycle accident, Tech. Sgt. Mark Hopkin's recovery was far from over.

I was an adrenaline junky, and I was much more focused on the thrill of victory than the agony of defeat. I revved the engine and then attacked the hill with extreme prejudice. The fear that I'd started the climb with slowly dissipated as I made it about half way and still had plenty of speed. I was going to make it!

Then as I neared the top, I spotted what I couldn't see below. There was a lip at the top of the hill that arced backward. In horrifying realization I knew that when I hit it, it was going to flip the bike and send us careening down the hill. As the front tire hit the lip, my worst fears were realized. The bike flipped and I bailed.

I somehow managed to jump clear of the dirt bike as it tumbled and slid down the hill. I tumbled uncontrollably, sliding in dirt, hitting rocks and wondering when this "thrill ride" would end. As my body skidded to a stop toward the bottom of the hill, I could hear the engine revving on my dirt bike, which came to a halt halfway down.

I was bloodied, scraped and bruised, but I had avoided serious injury from such a crazy stupid stunt. It took me the better part of an hour to retrieve the bike and maneuver it down the slippery hill. Back then, I still didn't grasp all of the things that could have gone wrong for me. But older and wiser, the hair raises on the back of my neck as I realize how life could have been much different for me had I not been stupid lucky.

*Eddie Renendez
Via e-mail*

AIRMEN SAVE DAD FROM DROWNING

ANOTHER DIES IN RIVER ORDEAL



BY TECH. SGT. SY PINTHONG

The Buttahatchee River in Caledonia, Miss., was the scene of a heroic rescue and a tragic drowning May 26.

COLUMBUS AIR FORCE BASE, Miss. — Four Airmen from Columbus Air Force Base pulled two drowning men from the Buttahatchee River in Caledonia, Miss., on Memorial Day. They resuscitated one of the men; the other died.

Staff Sgts. Joshua Keith and Alexander Gordy and Senior Airman Ryan Werner and Airman 1st Class Kyle Carpenter, all of the 14th Operations Support Squadron, are being hailed as heroes for their actions that day. The Airmen were enjoying a day at the river when they heard a loud commotion downstream.

"We heard someone screaming, *'My kids! My kids!'*" Keith said. "We saw what we thought were two kids caught in the current."

The Airmen witnessed two men jump in after the children and thought they had the situation under control. But seconds later they noticed there were actually three children in the water, and the men were struggling to save the kids and themselves.

"We realized they needed our help," Keith said.

The father of the children had been the first to jump to their rescue, quickly followed by their grandfather. The two men managed to push the kids out of the current, but they didn't have the strength left to pull themselves ashore.

"The (dad) was fighting the current with one hand up in the air," Carpenter said.

To get to the distressed swimmers, the Airmen had to run downstream and swim across the river.

"We (ran) about 50 yards on rocks to get there, (and then swam) across about 50 yards of crosscurrents," Werner said.

Even after that exhausting sprint and swim, the Airmen wasted

no time diving back into the water to brave the dangerous currents and rescue the men.

"I grabbed the grandfather and tried to drag him upstream to the shore, but the current was too strong," Keith said. "I was swallowing water, so I had to let him go and catch my breath. When I got to the bank, two of my friends were already diving in and out of the water searching for the guy."

While the Airmen were still probing the murky waters, other good Samaritans assisted in the search. One bystander finally located the father and dragged him to the shoreline, but he was not responsive.

"He was completely blue and was not breathing, so I started CPR on him," Keith said.

While Keith performed CPR, Carpenter held open the victim's airway, and Werner and Gordy continued searching for the grandfather.

"As (Keith) was doing CPR the victim's brother was grabbing his foot screaming, *'Save him! Save my brother!'*"

The Airmen performed CPR for more than four minutes before the victim started responding.

"Carpenter kept telling me, *'You got to push harder! You have to keep going!'*" Keith said.

"So I just kept going. Finally, out of nowhere, his eyes opened."

While the father was finally becoming responsive, Werner and Gordy never stopped searching for the grandfather.

"We would dive under water, search the bottom and come back up for air," Werner said. "When I was coming up for a breath there was a tree limb there so I tried to hold onto it. Once I got some energy back, I would try to go back down and feel along the bottom with my hands."

“ I grabbed (him) and tried to drag (him) to the surface. I probably got around eight feet with the current (working against me) before I started running out of breath.”

Standing outside of Radar Approach Control at Columbus AFB, Miss., where they work are heroes of the day (from left to right) Staff Sgt. Alexander Gordy, Airman 1st Class Kyle Carpenter, Senior Airman Ryan Werner and Staff Sgt. Joshua Keith, all of the 14th Operations Support Squadron. They helped save a man from drowning on Memorial Day.

With no visibility in the murky, brown water and fighting the relentless current, their task seemed hopeless.

But then ... a miracle.

During one of his blind searches, Gordy found the unresponsive grandfather on the bottom of the river.

"I grabbed (him) and tried to drag (him) to the surface," Gordy said. "I probably got around eight feet with the current (working against me) before I started running out of breath."

But they did not give up, and after several attempts, were finally able to drag the man to the shoreline.

"Around the time they got the grandfather out of the water, the emergency responders arrived," Keith said. "While they were performing CPR, there were these little kids just sitting there watching. I assumed they were the grandchildren. So I got them in their car and gave them stuffed animals, trying to distract them."

Sadly, the grandfather passed away.

In an article released in the West Alabama Gazette, one of the victims' family members said, "I'm so thankful to those (Airmen). I'm so thankful; they did so much for me and my family."

— Airman 1st Class Daniel Lile
14th Flying Training Wing Public Affairs



BY AIRMAN JOHN DAY

RIVER SAFETY TIPS

+ **Always wear a life jacket.** It's smart to wear a properly fitted life jacket while boating, tubing, fishing, wading or swimming in a river — especially for children. The currents are even stronger than they appear, and visibility in the water is often poor.

+ **Wear shoes.** Rivers aren't sandy beaches. Wearing shoes will protect you against glass, rocks, sticks and other debris.

+ **Never enter the water alone.** Use the buddy system.

+ **Do not overestimate your swimming ability.** When it comes to rivers and their treacherous currents, even the strongest swimmers should be extremely cautious and should never attempt to swim across the river. River swimming, in general, is not recommended.

+ **Don't panic.** If you do get caught in the current, stay calm. Don't try to swim against the current or across it as fatigue will quickly set in. Instead, try to get on your back with your feet pointed downstream to push off any obstacles you may encounter. Flow with the current instead of against it, using strokes that allow the current to take you naturally to shore.

— National Park Service



COURTESY OF BILLY HEATTER

Whether whitewater rapids or seemingly calmer waters, a river's current is even stronger than it looks, according to the National Park Service. This can make it a death-trap for those who don't respect its inherent risks.

SNAKEBIT BY LAWNMOWER

A 27-year-old senior airman mowed over his left foot while trying to avoid a snake slithering through his yard. The lawnmower blade sliced through his fourth toe, partially amputating it. The Airman had been wearing sandals at the time of the accident.



PHOTOS BY TECH. SGT. SY PINTHONGS

MOWING SAFETY TIPS

▶ Proper clothing is essential to protect your body. Always wear close-fitting pants, earplugs, protective eyewear and sturdy footwear (*i.e., not sandals*).

▶ Every time before you mow, check your lawn for items such as toys, sports equipment, dog bones, wire, equipment parts, rocks, sticks (*and snakes!*).

▶ Wait for the blades to stop completely before removing the grass catcher, unclogging the discharge chute, cleaning underneath the mower, or crossing gravel paths, roads (*or feet!*).

— 82nd Training Wing Ground Safety Bulletin
Sheppard Air Force Base, Texas

BAD LUCK FOR GOOD SAMARITAN

An airman first class who volunteered to be a designated driver for her base's Airman Against Drunk Driving program ran into a bit of bad fortune while in this "good Samaritan" role.

After responding to a call to pick up a fellow Airman, she was returning to base when she spotted a box in the road. She

swerved to avoid hitting the box, lost control of her vehicle and hit the base's "welcome" sign.

Her vehicle's airbags deployed, and she sustained a slight abrasion to her face and bruising on her right arm and leg. The passenger suffered no injuries.

CATCH OF THE DAY

ENSURE YOU DON'T SNAG EYE DURING NEXT FISHING TRIP

Picture this. ... A 39-year-old man casts for salmon. Small twigs from a nearby tree deflect his line, and the three-pronged hook catches his right eye. ... A 21-year-old man rows a boat for a group of fishermen. He takes a hook in the left eye from one of his passengers. ... An 11-year-old boy's fishing line snags on some debris. He tugs on the line until it suddenly breaks free and snaps back, embedding the barbed hook into his cornea.

These are all true stories, and obviously none of the victims set out to make their eye the "catch of the day." Unfortunately, these types of accidents are more common than you might think. As a matter of fact, when it comes to sports-related eye injuries, fishing is right up there with baseball and basketball, according to the U.S. Eye Injury Registry.

But eyes aren't the only unintended final destinations of these errant hooks.

When I was active duty, a group of us stationed at Joint Base Elmendorf-Richardson, Alaska, booked a halibut fishing trip in Seward. We left the night before the trip to hit the famous Russian River, where "combat fishing" is the norm. As I was fishing, I looked upriver to see two of my friends standing facing each other. The next thing I see is one of my buddies going at the other one's neck with the pliers from a Leatherman. One friend had snagged a rock.

When he pulled the line free, the line snapped back and buried the hook so far in the other guy's neck that you couldn't see where the hook bends to form the "J." Because of the hook's close proximity to my friend's jugular vein, I "kindly" suggested they stop tugging at it and go to the hospital to have it removed by professionals.

Hands, fingers, arms, legs, shoulders, backs, heads, cheeks (face and otherwise), and other even more sensitive parts of the body (gulp) have all received unintentional piercings from errant fishing hooks at one point or another. I myself have been struck in

the temple, hand, leg and chest by flying hooks or weights.

Of course, one of the first pieces of advice to avoid these types of injuries is better situational awareness. When casting, ensure everyone near you is clear of the hook. When tugging on a snag to save a \$6 lure, consider the potential consequences. Sometimes it's less costly to just say goodbye to that favorite lure.

But when situational awareness does break down — by yourself or the guy next to you — one of the most important pieces of safety equipment you can have with you is a pair of glasses that provide

impact protection as well as good sunlight filtration. Anyone who fishes on a regular basis will tell you polarized glasses are the way to go. Polarized glasses filter out the ultra violet light, reduce eye strain, and if you are sight fishing, help you see that trophy fish. While polarized glasses are important, you should not compromise safety. There are several manufacturers that incorporate polarization and impact resistance.

Finally, a lot can be said about the company you keep. This is especially true when selecting a fishing buddy. Some areas such as the Kenai or Russian Rivers in Alaska require a seasoned angler to prevent unintentional hooks to the face. These two ultra-popular rivers can be very crowded. In fact many times you'll see shoulder-to-shoulder anglers when the

salmon fishing is hot. If you are teaching someone how to fish, select an area that you can freely provide instruction that will allow for the occasional mistake.

Fishing has always been an American pastime, just like baseball. It is great to get outdoors, enjoy the fresh air and take in the surroundings. Just take a little extra care to ensure your "catch of the day" is the one you intended.

— Doug Hoffmaster

Joint Base Elmendorf-Richardson, Alaska



COURTESY PHOTO

Many fishing hooks have barbs that make them difficult to remove if they embed in an eye. If you or a buddy do catch a hook in the eye, do not try to remove it yourself, as you may cause more damage. Tape the lure to your brow to keep its weight from tugging on your eyeball and get to the nearest hospital immediately.

A crowded boat like this one on the Kenai River in Alaska can be the "perfect" place for someone to get inadvertently hooked by a buddy casting a fishing line.



BY AIRMAN 1ST CLASS JACK SANDERS

'Be Brilliant in the Basics'

Safety commander discusses how to deal with tough times

Risk

Reward

By **TIM BARELA**

Photo by Tech. Sgt. **SY PINTHONG**

Multiple sexual assault incidents, academic cheating accusations, sequestration, less money, and people worrying about whether or not they will have a job tomorrow are all adding stress to a force already being stretched by a high volume of deployments. Since increased stress and distractions are known to contribute to increased mishaps, the Air Force's chief of safety has his hands full in trying to ensure these distractions don't turn into more people getting hurt or equipment getting destroyed.

Torch magazine recently sat down with Maj. Gen. Kurt Neubauer, who serves as both the Air Force's chief of safety in Washington D.C. and the commander of the Air Force Safety Center at Kirtland Air Force Base, N.M., to discuss some of the safety issues facing him during his first year in office.

Q: The Air Force chief of staff has expressed concern with an increase in mishaps that indicate lack of compliance and decision making as causal. On the flying side of the house, how are we addressing these concerns in such areas as flight discipline?

A: Each major command commander is going from tooth

to tail looking at these exact issues. Really — whether flight, ground or weapons safety — it comes down to a reinforcement of being brilliant in the basics. Whether it's a seasoned pilot or the youngest Airman on the flight line, anyone can make an error. And if the error is not caught fast enough, it can tumble into something catastrophic. Regardless of how experienced an Airman may be, regardless of what the phase of flight or maintenance work it is, there are certain rules of the road that must be abided by — not only from the standpoint of being able to effectively execute the mission, but also from the standpoint

“Safety isn't a sideshow ... it's an integral part of performance. We have to balance the scale of risk and reward.”

of being able to execute it safely. That structural integrity of mission accomplishment and safety is all one piece. Safety isn't a sideshow ... it's an integral part of performance. We have to balance the scale of risk and reward. Even though we know we are going to be executing a risky mission or task, we have to continuously offset that risk with equipment, training and habit patterns.

Q: On the ground side, what steps are we taking to encourage Airmen to obey rules established to help keep them safe (i.e., speed limits, wearing helmets, strapping on seat belts,

no texting and driving, no drinking and driving, etc.)?

A: When it comes to ground mishaps, leaders have to be present — involved and interested in what their subordinates are doing, not only their on-the-job duties but also regarding what they are doing with their off-duty time as well. What are their hobbies and interests? What are their long-term goals? Are they enamored with extreme sports? We have to make each Airman understand how important they are. Without Airmen, you don't get airpower. So they have to not only train hard and work hard, but when they play hard, they have to do it smartly and make those right risk-versus-reward decisions so they can come back safely after their leave or long weekend and be ready to get after it again.

Q: When it comes to safety, what is the Air Force's biggest strength?

A: Whether ground, flight or weapons safety, our Air Force is doing a good job overall. You see that success by virtue of the fact that we're in a very high-risk business, whether it's in the air, on the ground or in the weapons storage area; yet, regardless of where we work or what we are doing, the number of mishaps, although not yet at zero, are much lower if you look at them in the context of the sheer number of operations we have going on worldwide. This success is a testament to the discipline of our Airmen, discipline of purpose, discipline of method, use of tech data, and abiding by our standards and practices. It's a testament to how we teach and train our Airmen both in professional military education and on the job. And, finally, it's a testament to the discipline of doing things the right way the first time.

Q: How do we continue to improve upon our strengths and reverse any negative trends in the areas that challenge us?

A: It's going to take repetition. If you use the gym as an analogy, it's about sets and repetitions. In the gym, it's three to five sets, three to five reps, three to five times a week. That's how you stay fit and build strength. Using that same philosophy, we have to continue to remind Airmen, regardless if they are new or the most seasoned Airman in the squadron, about good habit patterns and safety practices three to five times a day, three to five times a week. We have to get them to the point that they are thinking about it as a matter of habit. Because when they are thinking about it, they talk about it. Their actions will soon reflect those discussions. Those actions become habit patterns. Those habit patterns forge our destiny. And that destiny means mission success. So it's not only the initial training of showing Airmen what to do and how to do it, but then going back periodically and rechecking and refreshing that to ensure we are staying on task, strengthening and building solid habits.

Q: Each year Air Education and Training Command basically teaches "young pedestrians" how to aviate and graduates tens of thousands of basic trainees — mostly teen-

agers — who think they are bulletproof. What do you think is the best way to reach this group to prevent mishaps and instill risk management into their professional development and lifestyles?

A: They need to hear it not only from leadership, but peer to peer. Airman-to-Airman videos (like the ones produced at the safety center) are priceless. Because when an Airman in his or her young 20s hears from another Airman in his or her young 20s, I think that is incredibly valuable. For example, "This is what happened to me, this is the mistake I made and this is the lesson I learned" ... a lesson we can all learn from. Peer-to-peer feedback helps them to understand there are other Airmen out there who are dealing with the same choices, the same dilemmas, the same challenges. They are just in a different location. And you can learn from their mistakes before you make the same error.

Q: What types of mishaps trouble you the most?

A: Any preventable mishap is troubling. First of all, our country invests a tremendous amount in our Airmen and our equipment. So whenever we lose an Airman, bend metal or break equipment, it's a huge loss for our Air Force and for our country. And perhaps most importantly, there's the effect of that loss on family, friends and co-workers. The real challenge is how to reach zero mishaps ... that's the goal we're shooting for ... a quest for zero. It's a very elusive quest and although we may not see it soon, I think with consistent reinforcement of good habits and understanding how to offset the risks we must take, we will make good headway.

Q: What mishaps have you witnessed or reviewed that stick out in your mind?

A: There have been several. Any loss of an Airman is tragic. But the mishaps that were clearly preventable either through better decision making or by ensuring compliance with our established methods and guidance ... those are the ones I find most troubling. The real tragedy, though, is not just the loss of the Airman or the equipment, it's the second and third order effects that happen as a result of the mishap — how it affects the families, how it affects the squadron. I have dealt with grieving family members, and there is nothing you can do for those folks to fill the hole in their heart after losing a loved one. That's why I'm passionate about the quest for zero. This is personal for me ... this is part of our Air Force family business.

Q: If there were a single thing people could do or a single bit of advice you could give that would save the most lives, what would it be?

A: Be fit, be ready and be able to do your mission. And on any given day, if you're not fit, ready or able for your mission, be man or woman enough to fess up and tell your leadership that today is not your day. Take the time to recharge, refit and reinvigorate, and then reattack that mission the following day. Don't try to force things — it's not worth the risk. ✈️



“If you're not fit, ready or able for your mission, be man or woman enough to fess up and tell your leadership that today is not your day.”

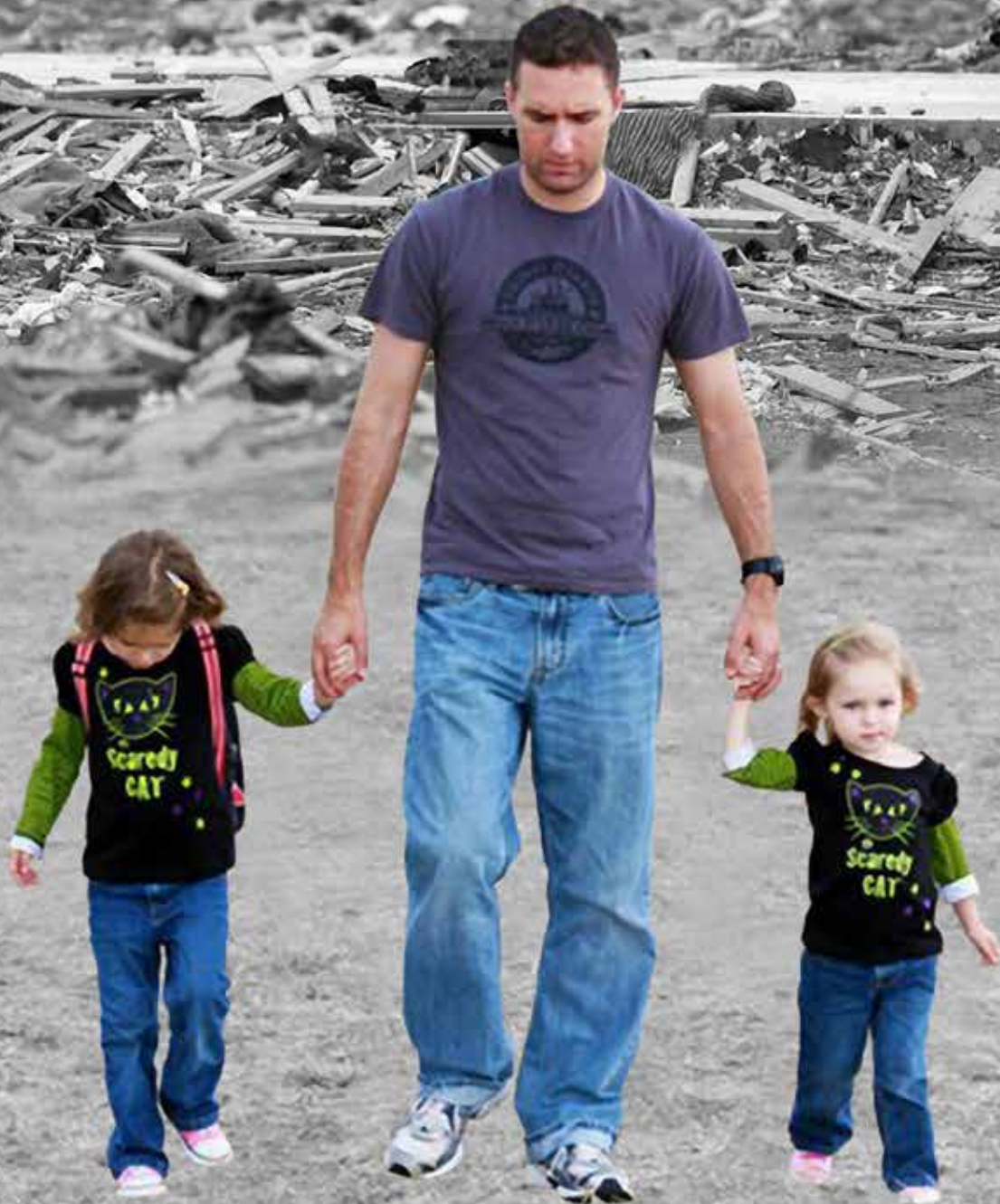
— Maj. Gen. Kurt Neubauer

Missing DAN

By **TIM BARELA**

Photo illustration by **DAVID M. STACK**

When a violent twister battered a small town in Arkansas, a dad's heroic efforts to save his children cost him his own life



Daddy's girls through and through, Sydney (left) and Lorelai loved to take walks in the park with their dad, Master Sgt. Dan "Bud" Wassom II. The girls had their lives turned upside down when a tornado hit Vilonia, Ark., April 27, destroying their home and taking their daddy's life.

As a tornado demolished Master Sgt. Dan Wassom's house, he and his wife, Suzanne, tried to protect their 5- and 7-year-old daughters by using their own bodies as shields. It worked. Their children survived. But one of the parents didn't make it.

With winds reaching nearly 200 mph, the devastating EF-4 tornado smashed into Vilonia, Ark., April 27, killing 16 people. The twister demolished 50 of 56 homes in the Wassom's subdivision, as well as nearly half the businesses in the town of 3,800. Thirty-one-year-old Daniel Ray Wassom II, affectionately known as "Bud" to his family and close friends, died while hovering over his 5-year-old daughter, Lorelai.

Bud had been a C-130 Hercules loadmaster evaluator with the Air National Guard's 189th Airlift Wing at Little Rock Air Force Base, Ark. In joining the Air Force as a patriotic calling shortly after the terrorist attacks of 9/11, he had followed in his dad's footsteps. The senior Dan Wassom had been a C-130 maintenance crew chief at Little Rock before retiring from active duty and still works at the base as a civilian in the 19th Maintenance Group, just minutes from his son's unit.

Dan Sr. and his wife, Pam, reside in Cabot, Ark., in the home where Bud grew up. They live only 20 minutes from where their son's 2,300-square-foot home used to stand before being reduced to a pile of rubble.

"We were supposed to be there that night ... at his house," Dan Sr. said. "Maybe ..." His voice trailed off and he looked down at the cement floor in the garage where he and Bud used to work on cars together.

Almost on a daily basis as their minds wander to that terrible night, he and Pam run through the improbable scenarios — the ones where they somehow save their only son. They know they could not have done much had they been there in the midst of a monster storm that tossed cars and refrigerators as if they were pebbles, but they beat themselves up anyway, their brains playing a cruel game of *coulda, woulda, shoulda* on a seemingly endless loop.

Maybe they *coulda* talked their son and his family into seeking refuge at a nearby storm shelter. Maybe they *woulda* directed his family to a safer location in the house or used their own

"He was the best daddy I'd ever seen. He was involved in every aspect of those girls' lives. ... He took to parenthood as naturally as breathing air."

bodies as human shields. Maybe they *shoulda* helped their son procure that safe room he'd been talking about building in his garage but had put off for other priorities.

"We wish it had been either one of us (who died)," said Pam, who together with Dan Sr. raised six children (four biological, as well as a nephew and niece). "He still had those babies to take care of."

And parenting his girls — Lorelai and Sydney — had been Bud's passion.

"He was the best daddy I'd ever seen," said Pam as she stood in the kitchen where countless times she had prepared her son's

favorite meals and watched him make his young daughters laugh with silly stories. "He was involved in every aspect of those girls' lives."

From changing diapers and giving baths when they were infants, to riding bikes and taking them fishing when they were older, Bud enjoyed his daughters as much as they enjoyed him. He was even there holding them when they got their ears pierced, Pam added.

"He took to parenthood as naturally as breathing air," she said. "And he loved his wife with all his heart."

So while his death came as a shock to his family and friends, the way he died — protecting his family — surprised no one.



Wassom, a C-130 loadmaster evaluator, was a decorated Airman, having earned an Air Medal for his deployment to Kuwait in support of Operations Enduring Freedom and Iraqi Freedom. A tour he volunteered to do, he flew 16 successful combat missions over Iraq and Afghanistan in 2010.

On the night of the tornado at 7:20 p.m., Suzanne posted a picture on Facebook of their family huddled in the hallway to wait out the storm. They had retreated to where they'd deduced was the safest area of their home as sirens blared, warning them of the incoming threat.

She would later tell Dan and Pam that Bud had been calm, cool and collected even as it became apparent the deafening twister had begun consuming their home. He used his 6-foot-2 frame to form a semi-cocoon over Lorelai, while Suzanne hovered over Sydney.

"The girls told me they 'could hear Mommy's dishes breaking' and the wind roaring," Pam said.

Then they told her the house "exploded."

Powerful winds tossed the family of four around like feathers in front of a box fan. When the twister finally released them from its clutches, they had become separated from each other, according to Dan Sr.

Bleeding from a long gash in the back of her head, Suzanne, who had landed not far from where they had huddled in the hallway, started searching for the girls. Dazed and confused and still a bit woozy from the blow to her head, it took her a

moment to gather herself and spot Sydney just a few short steps away. The 7-year-old miraculously had been the least injured family member, sustaining only minor scrapes and bruises.

With her eldest daughter in tow, Suzanne began searching the house of horrors for Lorelai and Bud. She hollered for them, but didn't hear an answer. Then, out of the corner of her eye, the worried mother noticed some carpet moving. She yanked the carpet back and found Lorelai underneath, Dan Sr. said. The youngest of the Wassom clan had sustained serious injuries to her right shoulder and left foot (though they wouldn't discover that until later).

It had started to rain, so Suzanne decided she better get the girls under some shelter. She spotted a house across the street that had a garage still partially intact; so bare-footed, the trio made their way through shattered glass and debris toward the only apparent refuge from the downpour.

"Once she had the girls out of the rain, she told them to stay there while she went to look for Daddy," Dan Sr. said.

When she finally found her husband of 10 years by following the ringing of his cell phone, she knew he had died. She used the phone to call for help.

"She said she then caressed Bud's face and told him that she loved him," Dan Sr. said. "About that time the wind had picked up again, and the girls started screaming."

So Suzanne did what she had to do ... what Bud would have



COURTESY PHOTO

Sifting through the rubble, locals were devastated by the EF-4 tornado that ripped through the small town of Vilonia. The twister destroyed 50 of the 56 homes in the Wassom’s subdivision and took the lives of 16 people. Among the things recovered in the debris were the Wassom’s beloved cat and two dogs – one of which turned up a month later. All three pets miraculously survived.

wanted her to do. She ran to her terrified daughters to comfort them and get them to safety.

When her phone rang the night of the twister, Pam had been surprised to hear the voice of Teresa Cole, Suzanne’s sister, who lives in Washington.

“She called me at exactly 8:09 p.m.,” Pam said, taking a deep breath and biting her lower lip. “She told me that the tornado had hit Bud’s house. She said, ‘Suzanne and the girls are hurt ... and Bud’s dead. ...’”

Dan Sr., who had barely pulled out of the driveway to go pick up their niece from a church function, had never heard his wife of 36 years so distraught.

“I couldn’t see a thing, so I started hollering for him, ‘Buddy! Buddy! It’s Dad. Answer me if you can.’” ... No response came.

“She’s screaming into the phone ... completely hysterical,” he said. “I couldn’t make out a word she’s saying.”

Pam attempted to tell her husband at least a half dozen times.

He couldn’t decipher her frantic words, “but I knew it was something bad,” Dan Sr. said. “So I turned the car around and headed home as fast as I could.”

As he pulled into his driveway, Pam jumped into the car.

“When I finally understood what she had been trying to tell me, we raced toward Bud’s house,” he said. “Then you just start praying that it’s a mistake ... it’s not true.”

Dan Sr. and Pam weaved their way as close to their son’s street as possible. He let Pam out while he searched for a place to park.

“I started running toward their house,” Pam said. “But then I heard Suzanne call out to me.”

In the dark, she said she would have run right past Suzanne and the girls if her daughter-in-law hadn’t stopped her.

“First responders were bandaging Suzanne’s head, which eventually needed 14 staples,” Pam said. “Lorelai had a chunk out of her right shoulder and pieces of wood still sticking out of it. Sydney fared best of all with only minor cuts.”

As she held her granddaughters, Pam’s thoughts drifted to her son.

After Dan Sr. had ensured Suzanne and his granddaughters were in good hands with Grandma and the first responders, he headed toward Bud’s house.

His heart sank as he saw his son’s once meticulously landscaped and decorated home in ruin.

He entered the house in total darkness. In his haste to reach his son, he was unprepared. He did not have a flashlight.

“I couldn’t see a thing, so I started hollering for him, ‘Buddy! Buddy! It’s Dad. Answer me if you can.’”

No response.

After several minutes of stumbling over debris and no luck in his desperate search for his son, some people making their way through the neighborhood stopped to offer assistance. One of them lent Dan Sr. his cell phone to use as a makeshift flashlight.

“Once I had the light it took me less than a minute to find him,” said Dan Sr., who noted it was about 8:40 p.m.

A first responder, who had earlier been directed to Bud by Suzanne, had placed a blanket over Bud's body.

"I pulled the blanket back and saw his face," Dan Sr. said. "His eyes were closed as if he was asleep. He looked at peace."

Dan Sr. said his Air Force self-aid and buddy care training automatically kicked in and kept him calm and focused.

"I grabbed his wrist and checked his vital signs. His wrist was already cold. No pulse. I checked under his arm. Nothing. Then I checked the arteries in his neck. Not a thing ...," he said, slowly shaking his head.

As Dan Sr. assessed his son's injuries, he found he had suffered two fatal blows.

"A heavy structural beam had struck the back of his neck, opening a large wound, and a one-by-four had impaled his chest," he said. "When I saw that, I knew there was no hope."

Stoically, the father, who said he was still in shock, grabbed a cushion and placed it under his son's head.

He stood up slowly, stared at his boy and silently asked God, "Why did this have to happen to my son?"

Suzanne, bloodied from the serious head wound and numerous cuts and scrapes on her arms, appeared ready to faint.

"I think the only reason she hadn't passed out to this point is she knew she had to be strong for her kids to ensure they were safe," said Dan Sr., who added that Suzanne had also helped get a neighbor's 5-year-old boy to safety. "She was operating in survival mode — on a mother's instinct to protect her children."

But with the children safe with Grandma and first responders, the weary mother started to drift off. Fearing she had a concussion, they tried to keep her awake. Kelli Jackson, Suzanne's cousin, had arrived on-scene shortly after Dan Sr. and Pam. Since no ambulances appeared to be on the way, Pam and Kelli decided to transport her daughter-in-law and grandchildren to the emergency room in nearby Conway, Ark.

Dan Sr., who had confirmed their worst fears and let Pam know their son was indeed dead, stayed behind to wait for the medical examiner.

In the car with the dome light on, Pam said Sydney suddenly screamed, "Lorelai, your toe!" Lorelai looked at her foot and shrieked, "My toe's cut off! My toe's cut off!"

"Part of her left middle toe had been severed and was hanging just by the skin," Pam said, wincing. "None of us had noticed it in the dark. I started to wrap a sock on her foot to hold the toe in place when a first responder gave us some bandages."

They arrived at the hospital in Conway, where Suzannes parents met them and stayed with their daughter as doctor's treated her injuries. Dan Sr. met them later and took Sydney home with him. Pam accompanied Lorelai, who was taken by ambulance to Arkansas Children's Hospital for surgery on her shoulder and toe.

But the surgeon wasn't able to save Lorelai's toe.

In the triage room, though, Lorelai had already forgotten about her wounds.

Pam said, "She was telling anyone who would listen, 'My house exploded, and my daddy saved me!'"

Dan Sr. and Pam miss the way things were.

"Bud was one of those kids who would always give me a hug and kiss whenever we said hello or goodbye," Pam said, smiling at the thought. "Even in high school, when it's not cool to give

your mom a kiss, that never bothered him. He always showed me great affection. I miss that."

Dan Sr. misses sharing their passion for cars — especially Ford model vehicles.

"We built this hot rod together," he said, running his hand across the fender of a pimped out 1934 Ford three-window coupe. "It was parked in his garage when the storm hit and was one of the few things to survive."

"A heavy structural beam had struck the back of his neck, opening a large wound, and a one-by-four had impaled his chest."

Dan Sr. fired up the classic car, which still had some damage from the twister. He pressed the gas pedal a few times as the engine roared.

He smiled.

"Bud loved the sound of that engine," he said. "I miss sharing that with him."

And both parents lament the noticeable absence of their son's sense of humor.

With a twinkle in his blue eyes, Bud would call his dad "Ol' Man" and "tease me that he was going to put me in a nursing home when I got older," Dan Sr. said with a chuckle.

"He was a jokester ... always pulling pranks," Pam said. "He loved to make people laugh."



PHOTOS BY TECH. SGT. SYRIN HONG

Dan met Suzanne at church while attending the University of Central Arkansas. "She saw my son and he saw her and sparks flew," Dan Wassom Sr. said. The couple had been married for nearly a decade before the tornado tore them apart. Their daughters — Lorelai, 5, and Sydney, 7 — still like to write messages to their dad, using chalk on their grandparent's landscaping stones.



Dan Wassom Sr. rebuilt this classic hot rod with his son.

It took them 12 years to restore the 1934 Ford three-window coupe. They had already started a new project – a 1935 Ford truck that now remains untouched, collecting dust in Wassom’s garage. “I’m going to sell it,” he said somberly. “I have no desire to work on it ... not without my Buddy.”

But most of all they miss the family get-togethers and the joy that was taken from Suzanne and their granddaughters.

“They all suffered some post-traumatic stress,” said Pam, who was always eager to raise her hand when it came to babysitting her granddaughters. “The girls are very sensitive when the winds pick up.”

Following the tornado, they felt safer on Little Rock AFB, where they were temporarily lodged, Pam said. Sydney, in particular, was comforted by seeing the men and women in uniforms like the ones her Daddy wore. And they didn’t like straying too far from storm shelters, which the base has aplenty.

Ultimately, Suzanne made a tough decision. She and the girls moved to Washington in late July to be closer to her sister and to give the girls a fresh start.

“You hate to admit it as a grandparent, but maybe that’s what they need right now,” Dan Sr. said. “They were terrified being in Tornado Alley. We just want what’s best for them.”

But it still doesn’t soothe a grandmother’s soul.

“We miss them terribly ... hugging them and hearing their giggles,” said Pam, who also has contemplated moving from the area they’ve called home for nearly 30 years. “But we all have our crosses to bear. We miss our son. They miss their daddy.

“He was their hero, and he proved it with his last breath.” ✨

Clutching Bud’s flight jacket, Pam Wassom, his mother, stands in her kitchen and reminisces about cooking her son his favorite meals, such as spaghetti or Korean barbecue. “God is still not my best friend right now,” the grieving mother said. “I am still mad.”



PHOTOS BY TECH SGT. SY ANTHONY

Overwhelmed

Dan and Pam Wassom say they were overwhelmed by the “Christ-like love” they, their daughter-in-law and granddaughters have received from friends, family, church members and strangers across the globe in response to the loss of their son.

They got particularly emotional when talking about all the support and generosity from their son’s unit, the 189th Airlift Wing at Little Rock AFB, Ark.

“We’ve witnessed firsthand that being in the Air Guard is like being in a family,” Dan said. “Those guys — from the commander to the lowest ranking member — really stepped up and helped take care of Bud’s family from day one after his death.”

Unit members spent days sifting through debris, searching for the family’s possessions and priceless mementos, such as family photos. One member of Bud’s unit paid for the displaced family’s temporary lodging on base out of his own pocket. Others rented a storage unit and hauled the family’s found belongings there. They handed out temporary furniture, beds, kitchen appliances, dishes and monetary donations. They even organized a 5K run to raise money



BY TECH SGT. SPINHTHONG

Dan Sr. and Pam are thankful for the generous outpouring they received. “I didn’t have to cook for a week,” Pam said. “Complete strangers sent us several packages and money, all of which we handed over to Suzanne. One friend even set up a fund that raised \$63,000 for Bud’s family.”

for Bud’s wife and two children, as well as for other base members who lost their homes. They dubbed the fund-raiser the “Awesome Wassom 5K Run.”

“By their overwhelming response, you can really tell how much members of his unit loved him,” Dan said, choking up at the thought. “We will never forget what they have done for our family.”

TORNADO Prep Checklist

- ☑ During any storm, listen to local news or radio to stay informed about watches and warnings.
- ☑ Know your community’s warning system. Communities have different ways of warning residents about tornados, with many having sirens intended for outdoor warning purposes.
- ☑ Pick a safe room in your home where household members and pets may gather during a tornado. This should be a basement, storm cellar or an interior room on the lowest floor with no windows.
- ☑ Practice periodic tornado drills so that everyone knows what to do if a tornado is approaching.
- ☑ Consider having your safe room reinforced. Plans for reinforcing an interior room to provide better protection can be found on the FEMA Web site at www.fema.gov/plan/prevent/rms/rmsp453.shtm.
- ☑ Prepare for high winds by removing diseased and damaged limbs from trees.
- ☑ Move or secure lawn furniture, trash cans, hanging plants or anything else that can be picked up by the wind and become a projectile.
- ☑ Watch for tornado danger signs:
 - Dark, often greenish clouds — a phenomenon caused by hail
 - Wall cloud — an isolated lowering of the base of a thunderstorm
 - Cloud of debris
 - Large hail
 - Funnel cloud — a visible rotating extension of the cloud base
 - Roaring noise

— American Red Cross

NINE FEET TO AGONY


Fall from ladder shatters man's heel bone into nine pieces

By **BOB VAN ELSBERG**

Photo illustration by *Teet Vgr*, **SY PINTHONG** and **DAVE STACK**



While cleaning his gutters,
an Air Force retiree fell off his ladder.



I couldn't catch my breath to scream for help. The unbearable pain in my left foot was unlike anything else I had ever endured. It felt like my foot exploded while being crushed in a vice. I don't remember how long it took me before I could call out "Karen!" to my wife, who was working in the backyard. I lay there on my concrete driveway in agony, having fallen nine feet when my ladder gave way.

Once I could think clearly I carefully tried moving my toes, and then my feet and legs. I already had a bad back — two herniated discs and another that was desiccated (crushed and void of any cushioning fluid). I had no idea what further damage the fall might have done to my back, so I lay still.

My wife, hearing my call for help, came running from the backyard through the garage to where I lay. "Do you want me to call 911?" she asked, as she placed a large sponge under my head to cushion it from the concrete. I hate going to the hospital, but in my misery I didn't hesitate: "Yes!"

As I eagerly awaited the ambulance in need of some serious pain meds, I looked up at the roof gutter, now bent down where my ladder had rested against it. "How did this happen?" I asked myself.

An ambulance and a fire truck quickly arrived in front of my house. The paramedics stabilized me and carefully loaded me into the ambulance; driving some 30 miles to a hospital where an orthopedic surgeon could examine my injuries. The X-rays showed the damage — I'd broken my left calcaneus (heel bone) into nine pieces. A nurse carefully wrapped a Robert Jones soft cast around my left leg and foot.

The hospital released me that night, and I saw a surgeon four days later. He told me the swelling was so bad it would be three weeks before he could operate. After he did my surgery, I found out it would take five months to recover. As I write this, I'm three months into that. My ankle is still swollen to the point I have to feel around to find the ankle bone.

And, did I mention, it still hurts.

So how did a guy who spent 17 years editing military safety magazines wind up a casualty of failed risk management? That was a question I needed to answer.

To help me I knew I needed to seek out a professional who could look at the circumstances of my accident and identify what I did wrong. My "go-to" guy is Clint Gordy, owner of G&S Home Services LLC, Enterprise, Ala. Clint's company works on both commercial and residential properties, repairing "anything from the floor to the roof," he said. And my accident — trying to imitate Tim Allen in "Home Improvement" — is hardly unique.

"It's a more common occurrence than you think it is," he said. Gordy added the most frequent cause is improper or poorly maintained equipment.

"You always inspect your ladder before putting it against a wall or whatever you are climbing to

make sure it is in perfect condition," he said.

Gordy explained ladders, like many other tools, have to be operated within safe limitations. For example, what weight is the ladder rated for? Will it safely support you and any equipment you're using? Gordy pointed out the sticker on my ladder said it was rated for 200 pounds. Considering I weigh 183 pounds, the added weight of my heavy boots and the hose and chemicals I carried up the ladder easily maxed it out. From years of working on ladders, Gordy likes to have a margin of safety. "If I'm on a ladder — and I weigh 240 pounds — I like for my ladder to be rated at 300 pounds. I like to know that I've got good stability."

The ladder's feet are also crucial to safety, according to Gordy, explaining extension ladders typically have pivoting feet with textured rubber bottoms for gripping concrete or pavement. Looking at the feet on my ladder, he noted they were well worn and in need of replacement — possibly a contributing factor in my fall. He added the feet on some ladders have teeth on them to get a better grip when placed on the ground.

There are other considerations, too.

He pointed out the importance of making sure the surface you rest your ladder's feet on is clean of any debris. In my case, that was a bit of a challenge. A large oak tree beside my house kept the driveway liberally sprinkled with acorns. Could one of these wooden "ball bearings" have gotten beneath the ladder's feet? It would have only taken a few moments with a broom or leaf blower to take care of that.

My house is above street level, causing my driveway to slope downward. That, Gordy explained, increased the likelihood my ladder would slip once I placed my weight on it. However, there was another factor at the top of the ladder that really set me up for a fall.

"You placed that ladder against a gutter, and a gutter is a flexible surface," Gordy said. He explained that stressed the gutter, causing it to flex and bend down. That loss of stability, combined with the worn feet, my driveway's downslope and, perhaps, acorn "ball bearings" was all it took for the ladder's feet to slip and give way.

Until now I was ignorant of the risks I was taking. However, there was another risk I knowingly chose to take that cost me dearly.

I knew you were supposed to face toward the ladder when climbing or descending. That day, however, I noticed the rung I needed to step on to begin descending was resting squarely against my gutter. Stepping onto it would have the toes of my work boots smashing the wire mesh covers I'd installed to keep out leaves and other clutter. To avoid that, I decided to step onto that rung facing away from the ladder, resting my weight on my heels to avoid damaging those covers. I planned to descend to the next rung, turn around and face inward while I finished descending the ladder. I figured I'd been safe enough so far that it was OK to



An orthopedic surgeon with Southern Bone and Joint in Dothan, Ala., Dr. David Alford shows the damage done to Bob Van Elsberg's heel after a fall from a ladder. Van Elsberg spent months in a cast.

break one safety rule. After all, if you're safe 99 percent of the time, shouldn't that be good enough?

I placed my right heel on the rung and everything seemed OK. Figuring "so far, so good," I placed my left heel on the rung — effectively putting all of my weight on the ladder. That's when all hell broke loose! Instantly the ladder slid out from under me, dumping me onto the concrete.

While it happened so quickly I can't remember all of the details, my wife swears she heard four distinct "thumps." And that's possible, Gordy said, explaining I had dangerously altered my balance on the ladder, making me vulnerable to falling. Also, with only my heels resting on the rung all it took was a little jolt — perhaps when the gutter collapsed — to cause my heels to slip off the rung, possibly launching me on a bumpy ride down the ladder. That may account for some of the thumps my wife heard.

As it turned out, the risk I chose to ignore, combined with the ones I wasn't aware of, caused the worst accident of my life.

Finally, Gordy pointed out you ALWAYS need a spotter at the bottom of your ladder. If, for any reason, the ladder slips or begins to lean, that spotter can help you regain your stability. In retrospect, I should have asked one of my neighbors to be my spotter that day.

You'd think after reading about other people's ladder accidents while editing military safety magazines I'd have learned from their mistakes. Yet the truth is I — like a lot of people — am internally motivated to "git er done." Unfortunately, when you're totally fixated on meeting a goal, sometimes it's easy to overlook the potholes along the way.

In my case, the "potholes" left me with a complicated foot surgery and a long recovery period. Fortunately, I'd



COURTESY PHOTOS

retired early last year so at least I wasn't a drag on my military organization, shorting them on manpower when things are already tough enough.

The bottom line is that you must always assume there may be risks you are not aware of. Ensure you thoroughly measure all the risks before placing yourself in danger and never assume being safe 99 percent of the time is good enough. When things go wrong, that 1 percent can cost you plenty. 🍀

GRAVITY BITES

There's an old saying that goes, "The bigger you are, the harder you fall." You can take that one step further and say, "The farther you fall, the harder you land." And human bodies, being somewhat less dense and firm than concrete, don't do so well in those impacts.

For example, if you fall off a one-story building, you'll impact at between 16 and 17 mph. "Not all that bad you say?" Well, would you like to run into a brick wall at that speed? Brick walls and concrete driveways don't "give" much in impacts with humans, unless you're referring to giving injuries. And falling and injuring your feet in the process can take the "spring" out of your step for up to six months, according to Dr. David W. Alford, a specialist in orthopedic surgery with Southern Bone and Joint in Dothan, Ala.

Alford's been performing foot and ankle surgeries since 1998. These days he typically sees three or four new patients each month who have fallen off roofs or ladders and broken their ankle or their calcaneus (heel bone). He explained those injuries "can be quite debilitating," adding, "Depending on the height of the fall — if it is over 10 feet — these can be classified as high-energy injuries with the bones being broken into many pieces."

Because your feet support your body's weight, such injuries severely limit your mobility. Simply getting up and going to the bathroom can require you to use a wheelchair, walker or crutches and be painful enough you'll wait until you really need to go.

Alford explained that when you take a normal step you transfer your body's weight from your calcaneus through the subtalar joint at your ankle and up your leg. And that subtalar joint, he said, is essential to walking.

"This joint handles the side-to-side



BY TECH. SGT. SY PINHONG

motion that is necessary when both in normal gait and having the foot accommodate uneven surfaces," he said. "If the calcaneus is broken and arthritis develops in that joint, this can cause significant pain or discomfort."

Because the accident causes a lot of swelling, surgery is sometimes postponed for up to three weeks to allow the swelling to go down. Since the calcaneus has little soft tissue around it to help absorb impacts, it is typically mashed flat, Alford said. Therefore, he has three goals when he operates — to restore the height and width of the calcaneus and repair the subtalar joint. Repairing that joint typically includes using metal hardware such as plates and screws and can make for very interesting post-surgery X-rays.

From there on it's a long, slow healing process that involves wearing a non-weight bearing cast for up to six weeks. After that point if X-rays show the surgery has properly healed, you'll get a cushion for the inside of your shoe and, possibly, receive physical therapy. However, you're not out of the woods yet. According to Alford, it takes up to five months for the surgery to completely heal and during that time you'll have plenty of pain to keep you company. Some days — especially in the beginning — just walking to the kitchen will be challenging enough.

That's where the rub comes in if you're an Airman. While you're recovering you'll be very limited in performing your duties — especially if you spend much time on your feet. And while the mission won't change, your not being there can affect unit readiness.

Finally, the unfortunate truth is that while surgery will help, your foot will never be as good as it was before. Because these accidents are life-changing events, Alford warned, "It warrants care and caution any time using a ladder. It is most often a very preventable injury."

— Bob Van Elsberg

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Proper fitness can help pilot



Gravity-induced loss of consciousness, also known as G-LOC, is a pilot killer. It can be combated with exercise programs – including weight training, as emphasized in this photo illustration of a pilot military pressing an F-22 Raptor.

Me Think

By 2nd Lt. ANTHONY COSENTINO

Illustration by DAVID STACK

Photo by Senior Airman MONTSE BELLEAU

s avoid blackouts in cockpit





PHOTO BY STAFF SGT JACOB N. BAILEY

G-LOC can happen when pilots are doing high-speed aerial maneuvers and aren't properly prepared, both physically and mentally.

Legs tight, butt tight, abs tight ... breathe! Sounds like commands given in a high-paced workout class held on base; however these are the very same words strung together in three-second intervals at the centrifuge. The centrifuge is a device used in training our future fighter pilots to reduce the chances of losing consciousness from gravitational forces, also commonly referred to as G-LOC.

Between 2006 and 2012, the Air Force lost three aircraft because of G-LOC and in each of those mishaps, a pilot lost his life.

To effectively combat the effects of G-forces, an individual must learn the correct anti-G straining maneuver, which consists of a proper breathing technique as well as aggressive muscle tensing. These two factors counter blood pressure loss during high-G maneuvering, preserving the pilot's conscious by supporting blood flow to the heart and brain. To safely and effectively go round for round with these high-G aircraft, pilots must prime their bodies to withstand forces up to nine times their bodyweight. To do that, fighter pilot exercise programs must stress the vital areas to successfully perform consecutive straining maneuvers.

The anti-G straining maneuver begins with tensing of the lower body, but more specifically, the calf muscles. Calves are often neglected by most gym-goers because they do not seem as important for daily life; however they can mean all the difference in staying conscious or blacking out. Using bodyweight calf raises might do the trick to finish off a good leg workout, but it will take much more to build a strong base for the straining maneuver. By pushing past

your comfort level, safely and effectively adding weights to calf exercises will help bust through any plateau you might have been at in a workout routine.

Next, your quads, hamstrings and gluteals need to be challenged with heavy squats, leg presses and deadlifts. Each one of these exercises has its benefits and targets different muscles in the leg; but because of their complex nature, they also can be dangerous if done incorrectly.

Finally, the abdominal muscles need to be targeted to maintain that strong, lower body strain. Many individuals know crunches and leg raises are effective for building beach-body abs; however, many do not realize the benefit of incorporating weighted exercises into routines. Weighted rope crunches, planks and sit-ups will build a nice, strong abdomen that will help counter G-suit inflation and maximize the high-G strain. These exercises will also develop strong core muscles which assist with cockpit stability.

One of my first projects as an aerospace and operational physiologist was to assist in increasing the G-tolerance of a student pilot who was selected to fly the prestigious F-22 Raptor. He had unsuccessfully attempted the 9G simulated air combat maneuver centrifuge profile that would qualify him to move on to his next phase of training. He was given one more opportunity to return and complete the profile without blacking out or he risked reclassification into another airframe.

The student pilot showed up to my office standing at 6-foot-2 and weighing less than 170 pounds soaking wet! We had our work cut out for us. The student seemed to have a very healthy

“Between 2006 and 2012, the Air Force lost three aircraft because of G-LOC and in each of those mishaps, a pilot lost his life.”

cardiovascular system with blood pressure as low as 110/70. The lower than normal blood pressure coupled with less than average muscular tone could spell disaster for anyone attempting to pull Gs.

For five months, the young lieutenant followed his prescribed workout plan that focused on heavy lower body exercises in conjunction with a few upper body exercises for overall fitness. His diet plan also was tweaked to increase caloric intake to refuel his body after grueling workouts. Muscle is built outside of the gym, so sufficient nutrients and sleep were necessary to ensure that our plan would be successful.

Throughout this stressful time, the student had doubts of the effectiveness of this type of training and would often ask if he should be doing more. I informed him that I believed in exercises called "The Big 3." It consists of heavy bench presses, squats and dead lifts. If he could master these three exercises and consistently add weight to them week after week, then he would improve his ability to pull Gs. Simple, basic, compound movements have proven time and time again to be the king of increasing size and strength in an individual.

My final piece of advice for the student was to exercise his strongest muscle — his heart. I clipped a picture of an F-22 and a pilot in the centrifuge and told him to have it with him for every workout, for inspiration and motivation. He carried that tattered and torn picture for the duration of his training. During his workouts I would amp him up, and soon realized that giving him the same support during his centrifuge practice spins yielded positive

results as well. On Jan. 8, the student passed the centrifuge with flying colors and accomplished another milestone in his flying career.

Through hard work, repeated practice centrifuge spins, and a positive mental attitude, the student was able to complete the 9G profile with ease. He gained close to 20 pounds of muscle, corrected his bad workout habits, and turned himself into a G-monster!

This student illustrated two important concepts for every student pilot. First, during pilot training, it's important to master the anti-G straining maneuver early in flying training. Some students tend to develop poor straining maneuver technique in the T-6, and then struggle to overcome those poor habit patterns when they move on to high performance aircraft like the F-22. Secondly, students should begin a comprehensive exercise plan (that targets G-performance) early in flying training. There is strong evidence that such an exercise plan will improve a student's ability to handle Gs, and will pay dividends not only at the centrifuge, but in the aircraft as well. ✈

Lieutenant Cosentino is an aerospace and operational physiologist stationed at Laughlin AFB, Texas. He has served in the Air Force for nine years, eight of which were as an enlisted aerospace physiology technician. He also is a certified fitness trainer with the International Sports Science Association. He is also a professional natural bodybuilder in the Professional Natural Bodybuilding Association. His passion for fitness coupled with his background in aviation physiology make him the go-to guy for fitness programs focused toward fighter pilots.



Air Force instructor pilot Lt. Col. Stephen Frank, 559th Flying Training Squadron, Joint Base San Antonio-Randolph, Texas, demonstrates a few of the exercises he conducts to help keep himself fit for flight. At top left, he performs decline sit-ups with a controlled negative hold as he goes back to the down position, while at top right he does Swiss ball sit-ups, working his core. At bottom left, he performs a dead lift with military press, working the lower and upper body. At bottom right, he takes on the sitting squat machine, working out his legs and lower body.

PHOTOS BY TECH. SGT. SY PINHONG

BIRDS TAKE OUT T-38C

PILOT DELAYS EJECTION TO AVOID CRASHING INTO CITY



U.S. AIR FORCE PHOTO

A T-38C Talon crashed two miles south of Sheppard AFB, Texas, after a bird strike shattered its canopy and sent fragments from the canopy into the number two engine, causing catastrophic failure. The loss of the aircraft cost nearly \$8 million.

JOINT BASE SAN ANTONIO-RANDOLPH, Texas — A bird strike led to the crash and destruction of a T-38C Talon from Sheppard Air Force Base, Texas, July 19, 2013, according to a recently released Air Force accident investigation board report.

The investigation board determined the bird strike shattered the T-38C Talon canopy, which sent fragments through the number two engine causing engine failure. The shattered canopy also significantly increased the aerodynamic drag of the aircraft.

Additionally, investigators said the actions of the instructor pilot following the strike contributed to the mishap. In an attempt to return to base, the instructor pilot executed a turn that increased drag on the aircraft, robbing it of badly needed airspeed and lift

which caused the aircraft to enter into an unrecoverable stall. The pilot delayed ejection as he attempted to avoid flying over the city of Wichita Falls, Texas, and the aircraft impacted the ground about two miles south of the base.

The instructor pilot and student, assigned to the 80th Flying Training Wing, were executing a planned touch-and-go, simulated single-engine approach training exercise when the aircraft sustained the bird strike.

Both pilots safely ejected from the aircraft, suffering nonlife-threatening injuries. There were no fatalities or significant damage to civilian property. The loss of the aircraft cost nearly \$8 million, the report said.



BY AIRMAN 1ST CLASS DEVANTE WILLIAMS

HUMAN ERROR, FEATHERED FOES LEAD TO F-16 CRASH

While performing a touch-and-go, an F-16 Fighting Falcon from Luke AFB, Ariz., ingested at least three birds in its engine. That, along with some missteps by the pilot, led to the destruction of the aircraft and a total of nearly \$22 million in damages.

JOINT BASE SAN ANTONIO-RANDOLPH, Texas — A pilot's decision-making error after suffering low-altitude bird strikes during takeoff led to the destruction of an F-16D Fighting Falcon at Luke Air Force Base, Ariz., June 26, 2013, according to the recently released Air Force accident investigation board report.

The instructor pilot and student, assigned to the 56th Fighter Wing's 309th Fighter Squadron, were executing a planned touch-and-go training exercise when the aircraft's engine ingested at least three birds. This led to degraded engine performance.

Accident board investigators said the instructor pilot then erro-

neously elected to make an immediate turn that robbed the aircraft of altitude and airspeed, rather than climbing straight ahead to achieve minimum maneuvering speed for aircraft recovery. The instructor pilot's channelized attention and breakdown of visual scan limited the time to fully analyze the situation and successfully recover flight, the report said.

Both pilots safely ejected from the aircraft, suffering only minor injuries. There were no fatalities or significant injuries, and only limited damage to civilian property. The estimated damage costs are nearly \$22 million.

WHAT CAUSED A-10C THUNDERBOLT II TO CRASH INTO POWER LINE CABLES?



BY STAFF SGT DANIELLE JOHNSTON

A pilot's poor judgment and lack of flight discipline caused an A-10C Thunderbolt II to crash into some power line cables over a lake 90 miles south of Whiteman AFB, Mo. The pilot was able to safely land the aircraft, but the A-10 suffered nearly \$700,000 in damages.

ROBINS AIR FORCE BASE, Ga. (AFRCNS) — Poor judgment and a lapse in flight discipline caused an A-10C Thunderbolt II to strike two cables over Stockton Lake in Missouri May 22, 2013, according to the recently released Air Force Reserve Command accident investigation board report.

The board president found the pilot's poor judgment and lapse in flight discipline resulted in violation of flight rules and operating procedures relating to minimum altitudes.

The aircraft, from the 442nd Fighter Wing, Whiteman Air Force Base, Mo., was on a two-plane, low-altitude tactical navigation training mission at the time of the mishap.

As the flight flew over the southeast branch of the lake, which is about 90 miles south of Whiteman, the pilot descended below the approved minimum altitude of 300 feet above ground level

and maneuvered toward a boat that was traveling southeast on the lake.

The flight leader radioed the mishap pilot and told him the flight was approaching power lines that cross the lake. The mishap pilot acknowledged the call but continued his descent. At about 140 feet above ground level, the mishap aircraft struck two protective cables that run above the power lines crossing the lake.

The mishap pilot was able to land the aircraft at Whiteman, and the plane was towed to the base's aircraft parking ramp.

The A-10C sustained extensive damage to the right horizontal stabilizer, vertical tail and rudder; the left wing tip; and weapons and suspension equipment mounted under the left wing.

Total repair cost for the plane came in at \$698,858.69. Cost to repair the cables was not known at the time of the report.

CONTRIBUTING FACTORS

The accident investigation board determined the following three factors contributed to the A-10C mishap:

- ▶ The mishap pilot focused his attention on the boat on the lake and did not see the power line cables.
- ▶ The mishap pilot demonstrated complacency immediately prior to the mishap by descending the aircraft rather than climbing as a response to altitude advisories.
- ▶ The mishap pilot failed to acknowledge confirmation he saw the cables after the flight leader identified the threat.