Air Education and Training Command's

September/October 2009

Born to be a Check

Raised in a restaurant and now tantalizing taste buds as a career, this Airman knows his way around a hazardous area ... the kitchen PAGE 12

KITCHEN CHAOS

Navigating the most dangerous room in the house

THROUGH THE EYES OF A GUNSMITH

A master gunsmith makes weapons safe for Airmen PAGE 8

GOLDEN RULES

Twelve vital tips for safe gun handling

BIRDS OF A FEATHER

Air Force cracks down on bird strikes PAGE 18

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2010

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ENDAR

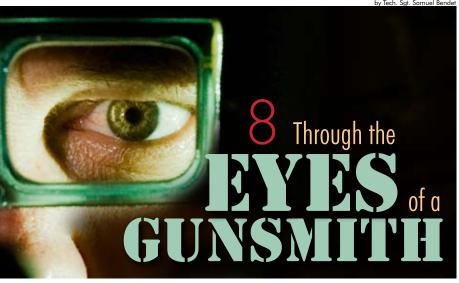
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TORCH

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Departments





William L. Moore Jr. is a master gunsmith who works in the gunsmith shop at Lackland AFB, Texas. If you handle a weapon, this is the guy you'd want maintaining it. Also see the "Golden Rules," 12 tips for safe gun handling.

Born to Be a Chef

Tech. Sgt. Rhodello Nuval knows his way around a kitchen. He grew up in the Philippines helping out in his family's restaurant. And for the past 13 years, he's been an Air Force chef, dedicated to good food and a safe working environment.

17 Kitchen Chaos

What's the safest room in the house? It's not the kitchen. According to the National Home Safety Council, the kitchen is the most dangerous place in the house, resulting in the most home injuries.

8 Birds of a Feather

Problems arise when the feathered variety of birds flock with the non-feathered type — aircraft. The Air Force is working aggressively to reduce the number of bird strikes from the more than 4,000 experienced in 2008.

TORCH TALK

Readers discuss a desert bus crash and air rescue, aircraft designations, flying safety, motorcycles, texting while driving, firsthand accounts and more.

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... Rudder failure causes T-38 crash

... Air Force discovers what crashed jet, killed pilot.

Cover photo by Tech. Sgt. Matthew Hannen Digital composite by Sammie W. King **Back cover** digital composite by David Stack **TORCH** – the official safety magazine of Air Education and Training Command

> September/October 2009 Volume 16, Number 5

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THE POWER OF WORDS

ords mean things.

The power of language has always intrigued and energized me. From my first speech class at Lake View High School in San Angelo, Texas, and throughout my personal life and Air Force career, I've embraced the power of language. Indeed, the effective use of language, in the form of words, can have a very positive impact.

History supports this assertion. Thucydides cited influential speeches given by Athenian and Spartan generals to rally troops before battles during the 431-403 B.C. Peloponnesian War. Centuries later, President George H.W. Bush, on Aug. 6, 1990, championed to the world, "This will not stand; this aggression against Kuwait." ... And a war with Iraq, with the liberation of Kuwait, was subsequently executed. Finally, our current chief of staff of the Air Force, Gen. Norton Schwartz, rallied our Air Force with the inspirational proposal, "We are 'all in' and ready to 'double down' in the face of adversity."

Without a doubt, these leaders leveraged language to transmit their visions to followers, and as such, influenced men and women to pursue common goals.

Regarding safety, Torch Magazine exists as a tool to assist leaders amid Air Education and Training Command to transmit their visions on safety, via the

power of language, to followers. In the past 15 years since the magazine began in 1994, nearly 2 million words have been carefully as-

"When you speak to others about safety, you save lives."

sembled to get people to think about mishap prevention related topics. In the July/August 2009 edition for example, AETC commander Gen. Stephen R. Lorenz championed safety in the flying environment and stressed, "If the flight lead did something that was incorrect or dangerous, the wingman is expected to say something about it" – regardless of rank. In the same issue, Command Chief Master Sgt. Robert Tappana, made a plug for a recurring ground safety issue when he noted that the health and wellness center can provide members with an exercise program that will teach them ways to get fit, while reducing the chance of injury. And last year, AETC vice commander Maj. Gen. Anthony F. Przybyslawski pointed out that "a little risk management would have made a difference in the outcome" of four accidental deaths the command suffered during the 101 Critical Days of Summer.

But you don't need your own magazine to advocate safety. In fact, and regardless of venue, when you speak to others about safety, you save lives. As such, leverage your safety language so as to generate powerful influences just like Athenian and Spartan generals did when preparing for battle. Champion mishap prevention just as a commander-in-chief would rally a nation for war. Thunder your mishap message forward with the same level of charisma, enthusiasm and leadership set forth by our own AETC leadership team.

To be sure, words mean things. ... And without a doubt, your friends and followers are listening.

Joh W. Blumentrut



MAKING A DIFFERENCE

Reference the cover story "Disaster in the Desert" in the July/August 2009 issue of Torch: Wow — great article! The Girl Scout Camp T-shirt (at right) was priceless. Many times on this journey we never find out the names of those we touch or impact. Col. John Blumentritt is one of the lucky ones. Elaine Hardy and that little Girl Scout will never forget him and the rest of the crew.

Dr. Bob Bisking Dean, School of Business and Leadership Our Lady of the Lake University, San Antonio



know how much Lenioved the time spent with you in preparation for the T

I wanted to let you know how much I enjoyed the time spent with you in preparation for the Torch Magazine article ("Disaster in the Desert," July/August 2009 issue). As I reviewed the events of the day of the accident, it gave me a chance to reflect on how fortunate I am. I realize that not everyone who experiences a serious accident or injury has as favorable an outcome as I enjoy. Thank you for giving me this opportunity; it was an honor to meet Col. John Blumentritt personally after 17 years.

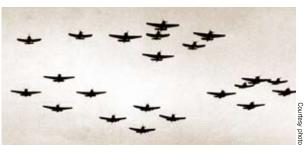
Also, I recently spent the 4th of July weekend celebrating the freedoms of this great country with my children, grandchildren and good friends. Life doesn't get much better than that. Thank you and all of your associates for your part in preserving those freedoms that too many of us often take for granted. *Elaine Hardy*

Boulder City, Nev.

HISTORY LESSON

With regard to the photographs on page 22 and 23 ("The Long Blue Line," July/August 2009 issue), whomever wrote the captions is obviously unfamiliar with the Navy's method of designating aircraft prior to Sept. 18, 1962.

During World War II, the basic designation for the Chance Vought-built Corsair was F4U and for the Grumman Hellcat was F6F with different models of each indicated by a hyphen and number (for example, F6F-3, F6F-5, etc.). So the designations "F-4U" and "F-6F" (note the position of the hyphens



as they appeared in Torch) are not correct when referring to the Corsair and Hellcat.

On another point, and with no disrespect intended to the memory of Capt. Richard Britson or his obvious courage, if his citation for the Navy Cross reads "scored a direct hit and seriously damaged a battleship," how did that transform into singlehandedly "sinking a battleship" as Maj. Brent Brockinton gives him credit for in the third paragraph, first sentence?

Lt. Col. Elliott Stoffregen Maxwell Air Force Base, Ala.

Thank you for the insight. The hyphens were indeed an editing error, and the citation did not reference the actual sinking of the enemy ship.

SHARING WITH OUR NORTHERN NEIGHBOR



I just read with interest your most recent Torch Magazine (July/August 2009 issue). I am the editor of the Canadian Forces Air Force Flight Safety magazine titled "Flight Comment." With your permission, we plan to reprint your article titled "It's Late Night with Ned" by retired Lt. Col. Ned Linch in "Flight Comment" to be distributed in December.

Capt. Kathy Ashton Canada

LETTERS TO TORCH

July August 2009

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.



In response to Terry Green of Cleveland who wrote the "Torch Talk" letter titled "Outlaw Motorcycles?" in your July/ August 2009 issue:

If ever motorcycles were outlawed for military members, let's look at other items that could be included in the lot. Marriage — can't do that because there's too much stress placed on the spouse. Morale, welfare and recreation - can't have that because it offers many activities that can lead to potential injury. Club memberships — cancel those because members could obtain a drinking habit there.

Shall I go on?

The characterization that professional athletes can't ride motorcycles is not exactly accurate. The National Basketball Association will allow players to ride motorcycles. In their contract it states "will not operate a motorcycle without written consent." That means they can ride if they have proper training and consent from the owning club.

As for military members riding motorcycles, that also is a requirement. A member must complete the Motorcycle Safety Foundation approved course and obtain appropriate state requirements

for the motorcycle endorsement before getting a license. Plus, members can't even get through the base gate on a motorcycle without squadron commanders signing off on their ability to ride.

FRF TO ST

Furthermore, base organizations such as the Green Knights foster mentorship to new, young and seasoned riders alike.

The bottom line is the military doesn't turn a blind eye to active-duty riders.

Retired Tech. Sgt. Dennis E. Patterson Sheppard Air Force Base, Texas

AND THE LOSER IS? TFXTI

Good article about texting while driving on page 7 of the May/ June 2009 issue ("A Message to Die For"). Check out the latest issue of Car and Driver Magazine. They did a controlled emergency stopping test with tipsy drivers and with texting drivers. Guess who did worse?

Chuck Dornev Wright-Patterson Air Force Base, Ohio





HAND ACCOUNTS

I see the Air Force is really putting Torch photographer Tech. Sgt. Matt Hannen through the ropes — first up in Alaska ("The 13th Student," 15th Anniversary Issue, page 29) for some winter training and then "playing" with Arthur, the military attack dog who has a few screws loose ("Arthur Is King," 15th Anniversary Issue, page 19).

The stories are more real when you experience the weather and the dog attack firsthand and are able to write about the feeling. It must be interesting to be able to witness many different events and maybe help someone to be more aware of danger that is just around the corner.

Your special anniversary issue was well done with a lot of facts of past mishaps that could have been avoided. Torch is still a big hit at the Philadelphia Airport USO and in care packages we send to our troops. Last month, we had 5,000 troops visit us.

> Retired Senior Master Sgt. Harry Mirra Philadelphia

Sergeant Hannen definitely made a positive impact on the magazine and its readers. As a matter of fact, he did such a good job that in October the Air Force assigned him to Defense Information School at Fort Meade, Md. There he will use his talent and experience to train others and help create a new generation of military photographers.

LISTEN TO **GROVER** CHILDREN PLAYING IMPORTANT ROLE IN A TENNESSEE COMMUNITY'S EMEDGENICY PREPAREDUECE PROCESS EMERGENCY PREPAREDNESS PROGRAM

Sometimes pre-kindergarten children don't obey their parents, but they nearly always listen to Grover. And studies show that what's important to children is usually

important to their moms and dads.

So, want to make a lasting cultural change? Get children involved.

At least that's the hope of leaders from Shelby County, Tenn., who teamed up with Sesame Street to distribute disaster preparedness and emergency kit literature titled "Let's Get Ready?" that targets pre-K children, ages 3 to 5.

"Following Hurricane Katrina, which devastated New Orleans, our community felt the after effects as the post-Katrina evacuees poured in," said Maj. Gen. Jan Young, Air National Guard assistant to the commander of Air Education and Training Command, who in her civilian role, also serves as the executive director of the Assisi Foundation of Memphis, Inc. (a health legacy foundation). "It really opened our eyes to what could happen ... made us realize how vulnerable we were. We had to figure out a different way to respond."

Sesame Street teamed up with Shelby County, Tenn., to distribute emergency preparedness kits to pre-K children, ages 3 to 5. The kits, titled "Let's Get Ready," are bilingual and offer a fun approach to learning what to do in an emergency.

This Kit Includes:

- A Sesame Street DVD A Parent/Caregiver Magazine
- A Children's Activity Book

Let's Get Ready. Planning Together for Emergencies™

Brought to you by the Assisi Foundation This became even more important last summer when researchers from the University of Memphis discovered a 30-mile long fault under the Mississippi River, along the Western border of the Shelby County line. In August, WMC-TV

"We already knew from our focus group demographics that emergency preparedness is more likely to be successful if kids are involved. So if we could get the children's attention; we could get entire families interested."

their magic on grandparents as well — they don't want to let the children down."

Shelby's program reaches far beyond the children as well. They target businesses, schools, hospitals and churches throughout

reported that researchers claim the Meeman-Shelby Fault could trigger a 7.0 magnitude earthquake, which would be a devastating blow to Memphis in terms of fire, flood, and wrecked buildings, bridges and roads.

"We have a large urban group with demographics similar to many of the people left behind in New Orleans after Katrina," said Young, who holds a doctorate in nursing practice. "The time to act was now, not after a disaster happened."

When officials started conducting surveys and focus groups to gauge the community's preparedness, they were concerned to find it all too low.

"When it came to emergency and disaster preparedness, most of our messaging had basically been threatening people to be prepared," Young said. "It was scare tactics: 'You'd better be prepared or you're gonna die.' "

But they found these methods weren't working.

"First off, people didn't like being threatened," Young said. "Secondly, our focus groups showed that no matter the demographic — whether you were poor or considered to be affluent, whether well-educated or a high school drop out — people in our community admitted to not being prepared. Most had no level of preparation for an emergency or disaster."

So Young, an expert facilitator and management consultant for community organizations, represented the foundation as it got together with the mayors from all the municipalities in the greater Memphis area. That ignited the "I'm Ready" campaign, which focuses on personal responsibilities during an emergency or disaster.

Piggybacking on that idea, Young was talking to Sesame Street on early reading initiatives when the subject of emergency preparedness came up. Sesame Street was intrigued by Shelby County's "I'm Ready" campaign, as they were in the process of launching their own "Let's Get Ready" campaign aimed at children.

"The prospect of teaming up with Sesame Street excited me as we already knew from our focus group demographics that emergency preparedness is more likely to be successful if children are involved," Young said. "So if we could get children's attention, we could get entire families interested. That's important because evidence suggests that people who think and talk about preparedness are less likely to panic if something catastrophic does happen."

So they partnered up with Sesame Street and set a goal to get the disaster response kits to every family who had children between the ages of 3 and 5. They started delivering the bilingual kits (Memphis has a growing Hispanic community) to every child care center and pre-K early education center in the county.

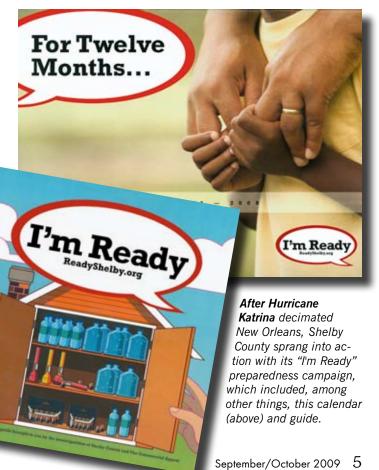
"This was perfect because we get kids telling their parents that Grover says 'Let's get ready!'" Young said. "They're asking, 'Do we have our kit, Mommy? Do we have our kit, Daddy?' No parent wants their kid to tell their teacher, 'We're not ready because Mommy and Daddy didn't make a kit for us.' They work — Maj. Gen. Jan Young

their community. They teamed up with *The Commercial Appeal*, the predominant newspaper in the area and one of the largest in the United States, to print and deliver a preparedness guide and calendar that were distributed in the newspaper's last Sunday edition of 2008 to the tune of nearly 200,000 copies. They even have their own Web site — *ReadyShelby.org* — with a variety of tips and guidance on emergency preparedness in easy to digest short bursts of information.

"Shelby County is a model for cultural change," said Col. John W. Blumentritt, AETC's director of safety. "They didn't just sit back and wait for a disaster to happen; they prepared and mobilized the community.

"In the Air Force, we shape culture early by immersing our new Airmen with safety information in the infancy of their careers. Shelby County has taken this culture shaping approach to a magnanimous level. They leverage culture enhancing tools like the symbol of Grover, as well as specialized slogans such as 'Let's Get Ready,' to excite children barely out of diapers to embrace this worthy cause. This is truly a positive example of bolstering a population that willfully accepts responsibility at the lowest levels, with a celebratory attitude of embracing a culture that is prepared and ready for the worst."

— Tim Barela



SKEET SHOOTING MISHAP LEADS TO BIG HOLE IN BIG TOE

When a young man broke two commandments of gun safety while skeet shooting, the big toe on his right foot paid a high price.

The man nearly blew off his own toe when he rested the shotgun barrel on his foot while reloading. Not only did this act violate common sense, but it also went against a couple of rules of gun safety: Always handle a weapon as if it's loaded, and never point a gun at anyone (including yourself).

As the graphic pictures on this page show, the mishap left a large hole in the victim's toe.

While skeet-shooting mishaps may not be as common as hunting accidents, this certainly isn't the first time someone has been injured.

In July 2008, the Associated Press reported that a man in Modesto, Calif., was skeet shooting when another member of the range accidentally shot him in the head. The shooter mistakenly put his finger on the trigger and wasn't paying close enough attention to where he had the gun pointed. The shotgun blast killed the other man.

In a more bizarre incident, two Colorado men suffered serious injuries while skeet shooting during dangerous weather conditions in May, according to the Weld County Sheriff's Office. Ignoring an approaching thunderstorm, the duo continued to target practice.

Apparently shotguns make good lightning rods, as a bolt struck the barrel of the rifle, which exploded in one of the men's hands, a sheriff's spokesman said. Both men were rushed to the hospital, but their condition was unknown because of patient confidentiality.

The bottom line is don't get complacent when handling a weapon ... and, remember, sometimes Mother Nature shoots back.

— Compiled by Tim Barela







When a man rested his shotgun on his foot to reload, he nearly shot his big toe completely off.

ARC ENERGY ONE FAMILY DIES, ANOTHER GETS LUCKY IN BOUTS WITH ELECTRICITY

When I read an AOL News story about a family of three getting electrocuted while putting up a ham radio at their Palm Bay, Fla., home Oct. 12, it brought back chilling memories of my own "shocking" near-disaster with electricity.

In the case of the family from Florida, police said a father, a mother and their 15-year-old son were attempting to raise the antenna when they lost control of the pole and it hit an overhead power line. The impact sent 13,000 volts of electricity through the pole, killing all three family members. My own experience could have had a similar horrific ending.

My family of five had just moved into a new home. We were excited to get everything in place. One item in particular presented its own problem. It was a huge wall clock we'd purchased from the Black Forest while stationed in Germany. It's heavy, and it needed a sturdy 2-by-4 from which to hang.

Finding a wall stud isn't always easy, but I was thrilled to discover one in the perfect spot on the wall on my first try. I used a 3-and-a-half-inch screw — long enough to serve as a sturdy holder for the clock, but not so long as to go all the way through the depth of the sheetrock and wall stud.

Less than a week after I'd hung the clock, the circuit breaker began clicking the power off. We'd reset the breaker, but it would continue to shut down our power. We figured that since it was a brand new home, some kinks still needed to be worked out with the wiring.

It didn't take the electrician long to discover the problem. The 2-by-4 to which I'd fastened the clock wasn't a stud at all. It was actually a board that ran from the junction box with all the electrical wiring to the house running along it. Since this 2-by-4 was flat against the wall, the 3-and-a-half-inch screw I used easily penetrated the shorter depth and poked into one of the wires. It took a few days for it to break through the protective plastic casing around the wire,

but once it did, that's what continued tripping the circuit breaker.

When the electrician cut away a section of sheet rock, I felt my heart sink when I saw what lay underneath. The wood had been badly charred, and the screw had been so heated by the electrical arc that it melted the metal in one spot. I could only think of the potential fire that could have started while my wife and three kids slept at night. We were lucky.

According to the National Fire Protection Association, electrical fires claim the lives of 750 Americans each year and injure 1,500 more. Some of these fires are caused by electrical system failures and appliance defects, but many more are caused by the misuse and poor maintenance of electrical appliances, incorrectly installed wiring, and overloaded circuits and extension cords. An extension cord related fire occurs every six minutes.

December is the most dangerous month for electrical fires. Fire deaths are highest in winter months because of the increase in indoor activities. Most electrical wiring fires start in the bedroom. This screw melted

and nearly caused a fire when a home owner accidently screwed it into a 2-by-4 that had electrical wiring attached to it.

— Tim Barela

AVOIDING AN ELECTRICAL FIRE

When using electrical appliances and tools, follow the manufacturer's safety precautions, and routinely check the wiring. Overheating, unusual smells, shorts, sparks and sputters are all warning signs appliances/tools need to be shut off, then replaced or repaired. Unplug appliances/tools when not in use.

Have an electrician check the wiring in your house.

Never overload extension cords or wall sockets. Only use extension cords as a temporary means, not a permanent fix.
Do not place cords and wires under rugs, over nails or in high traffic areas.
Immediately shut off, then professionally replace, light switches that are hot to the touch and lights that flicker.

Do not plug surge protectors into each other — it defeats their intended purpose.

Trayed wires can cause fires or severe shocks. Replace all worn, old or damaged cords immediately.

Weep electrical appliances away from wet floors and countertops. Pay special care to electrical appliances in the bathroom and kitchen.

> — Randolph Air Force Base, Texas, Fire Emergency Services and the National Fire Protection Association



Through the BEADERS of a CONSULTING A

Master craftsman makes weapons safe for Airmen

Story and photos by Tech. Sgt. SAMUEL BENDET

or William L. Moore Jr., having a gun in his hand is as natural as having a hand on his wrist. It's part of who he is.

For the past 26 years, Moore has been a small arms repairman for the Air Force Shooting Team and the Air Force Gunsmith Shop. Nestled in a bunker-like building at Lackland Air Force Base, Texas, the shop ensures Airmen get weapons that will shoot straight and not blow up in their hands.



Master gunsmith William Moore uses a precision binochular visor to magnify the hammer of a Colt 45. The optical visor helps him measure and see imperfections in a weapon's various parts.



"My dad taught me

to shoot almost as soon

as I could walk."

The shop is manned by 18 weapons specialists, but Moore is ... well, something more. He is a master of his craft — the Air Force's only certified master gunsmith.

To become a master gunsmith, Moore had to go through 3,000 hours of training at the Colorado School of Trades in Denver. It is one of the premier gunsmith schools in the nation.

But safe gun handling and maintenance began at a much earlier age for the 54-year-old weapons expert.

"My dad taught me to shoot almost as soon as I could walk," said Moore, who was born and raised in

the southwest Texas town of McAllen. His dad didn't only teach him to pull the trigger, though. He was a stickler for details. He taught Moore important gun safety lessons like "Never point a gun at anything you don't intend to kill" or "Don't put your finger on the trigger

taught his son to clean and maintain his weapon. Moore knew how to take apart and put a gun back together almost as soon as he knew his ABCs.

"My dad took me on my first hunt at age 7 at my grandma's Rattlesnake Ranch (so nicknamed because they'd kill a half dozen rattlesnakes there each year). I shot five doves that day," Moore said. "My happiest childhood memories were hunting with my dad, brother, friends and Boo, our bird dog.

So when it came time to decide what he wanted to do with his life, it's little wonder that the path eventually led him back to guns.

"I just looked at what I enjoyed most in life, and, well, here I am," Moore said with a smile.

Moore has been with the gunsmith shop so long, he's seeing his sixth generation of military members come through the unit.

"The group we have now is the best — the hardest working bunch of people that I have ever been around," Moore said.

That's important for the end user. Not only does the shop perform heavy maintenance repair and manufacturing on all the small arms in the Air Force, they test fire each one as well. At-

tention to detail is a must because if they send a gun that is malfunctioning back to the warfighter, it could result in severe hand or eye injuries — or even death.

Moore says Airmen can help keep their guns out of the gunsmith's hands by performing routine maintenance and cleaning the weapons — inside and out. He said the shop also sees a lot of

guns that were dropped or ones that Airmen allowed debris to get inside by not maintaining muzzle control or even leaning on them as if they were canes.

"You need to treat a gun with respect," he said. "But if Airmen do find worn parts, cracks and other signs of excessive wear on their firearms, they shouldn't hesitate to take them to the combat arms training and maintenance."

In the field, one of the worst things that can happen is having a gun jam, Moore said.

"If you hear a pop instead of a bang, it probably means the round did not go off properly and is stuck in the barrel," he said.

until you are ready to shoot." He also

"If this happens, don't fire another round. If you do, the weapon will likely blow up in your hands."

The results could be injuries to the operator's hands and face. But also, the person next to the malfunctioning weapon might get the worst of it as most of the shrapnel will blow out of the sides of the gun.

"I love guns, but I still recognize they can be dangerous if mishandled," Moore said. "If people follow the rules of safe gun handling, the chances of a mishap go down to almost zero."

Sounds like the safety advice from this master gunsmith is right on target. $\frac{1}{\sqrt{2}}$

With his tools of the trade always near his side to take precision measurements and accomplish the most detailed work, William Moore can fix or refurbish just about any small arms, including this Colt 45 with a red dot optical sight (facing page) for the Air Force Shooting Team. At right is a 6-inch caliper, which provides the detail needed to ensure a gun works properly.



GOLDEN RULES: A dozen vital tips for safe gun handling

Always treat the gun as if it's loaded.

Always use proper ammunition.

- Always keep the gun pointed in a safe direction.
- Always keep your finger straight and off the trigger until you are ready to shoot.
- Always keep the gun unloaded until you are ready to use it.
- Never point the gun at anything you don't intend to destroy.
- Be sure of your target and what is beyond it.
- Learn the mechanical and handling characteristics of the gun you are using.
- Be sure the barrel is clear of obstructions before loading and shooting.

If your gun fails to fire when the trigger is pulled, hold your shooting position for several seconds; then with the muzzle pointed in a safe direction, carefully unload the gun.
Don't rely on the gun's safety to keep it from firing.
Be aware of your surroundings when handling guns so you

don't trip or lose your balance and accidentally point and/or fire the gun at anyone or anything.

– GunSafetyNow.com





Raised in a r a career, this of hazards ...

10

estaurant and now tantalizing taste buds as Airman knows his way around a room full the kitchen | *Story and photos by Tech. Sgt.* **MATTHEW HANNEN**

VICES



efore Tech. Sgt. Rhodello Nuval reached 10 years old, he already had an idea he'd be a chef.

"Other kids would be out riding their bikes, and sometimes I'd go with them; but most of the time, I'd choose to stay in the kitchen and help my mom and grandmother cook. I just love to cook," said Nuval, whose culinary team won a prestigious award Sept. 25 during the 2009 Military Culinary Competition in Washington D.C. with Walter Schieb (noted White House chef for Presidents Bill Clinton and George W. Bush) in attendance.

Born and raised in the Philippines, Nuval's family owned a restaurant where he got his first taste of being a chef.

While other kids were out getting

skinned knees and scraped elbows, at any given time he sported small hot grease burns or sliced fingers. So at a young age he learned that the kitchen could be both heaven and hell.

"I started out just taste-testing food," Nuval said. "I'd steal

"If troops don't have a good meal in their bellies, I believe they can't focus as well on the mission. I want to ensure they get a good, nutritious meal so they can concentrate and put their bombs on target or whatever else they do. That's a big deal to me." the sugar flowers off the wedding cakes my mom made. She'd get mad at me because I could eat them faster than she could make them."

But when he was about 7, he evolved to more than just a kid licking chocolate cake batter off of a mixing spoon. He learned to cook his first meal. With that came working with fire-hot burners, sharp knives and scalding water.

"My mom taught me how to make fried rice and pancit (rice noodles with carrots, celery, soy sauce and chicken)," he said. "From there I went on to learn all kinds of Filipino delights. Along the way, she taught me to safely navigate through a busy kitchen."

At age 15, Nuval and his family immigrated to the United States. He went to High School in Las Vegas, and says the transition wasn't too tough because

he had already learned to speak English in his Filipino school. He then entered the Air Force in 1992, and got his start in

military food services in Air Education and Training Command at Luke AFB, Ariz. Today, he serves as the newest chef for



Digital composite by David M. Stack

Working over a hot flaming

stove is nothing new for seasoned chef Tech. Sgt. Rhodello Nuval. He says the main thing he has to guard against is complacency because he is so comfortable in the kitchen.

Lt. Gen. Thomas J. Owen, the commander of the Aeronautical Systems Center at Wright-Patterson Air Force Base, Ohio.

While going from student to fulltime food services specialist, the transition wasn't as daunting to Nuval as it was to others.

"By that time I'd been working in a kitchen most of my life," he said matter-of-factly.

But even the most experienced kitchen dwellers aren't immune from letting their guard down.

"As a young Airman, I was cleaning fryers," he said. "I got distracted as I was cleaning off the gunk and my arm touched the hot fryer coil. I got a nasty burn that left a permanent scar."

Nuval said a fast-paced, busy kitchen can become a house of horrors if people get complacent and don't stay focused. He's seen co-workers slice their fingers with knives, get burned by hot grease splashing on them from the fryer, break a bone by falling on a slippery floor or even get scalded because they wore a wet oven mitt when grabbing a hot pan (water is a great conductor of heat).

In nearly every case, the kitchen calamities could have been avoided if the victims or those around them hadn't gotten distracted and been better prepared, he said.

"If you want to avoid an accident, always prepare your equipment, food items and ingredients ahead of time," Nuval said. "This makes it so you don't have to leave your work station so much. Leaving your station can lead to more fires, slips and falls, and other incidents. Once you have everything you need within an arm's reach, then you need to avoid distractions, which can lead to burns and cuts."

While Nuval is accutely aware of the hazards a kitchen can present, these dangers do nothing to sway his passion for cooking.

"To me cooking is an art ... an expression of flavors, of life," he said. "I love to watch the smile on people's faces when they see the food and watch those smiles get even bigger when they taste it." And, as a military member, he has another motivation driving him as well.

"If troops don't have a good meal in their bellies, I believe they can't focus as well on the mission," Nuval said. "I want to ensure they get a good, nutritious meal so they can concentrate and put their bombs on target or whatever else they do. That's a big deal to me."

That's why he has deployed six times — as a volunteer. He's always among the first to raise his hand for a deployment because he wants to help the warfighter.

If anyone questioned his passion, those doubts were erased during a surprising spring blizzard at Ellsworth AFB, S.D., May 4, 2008.

"A blizzard hit the base in the middle of the night and dropped three feet of snow that came with 40 mph winds and temperatures 30 below zero," he said. "Roads were closed. Non-essential military personnel (like me) were told to stay home. But all I could think about were the Airmen in the dorms and the mission-essential personnel needing food."

So Nuval bundled up in arctic gear and, with his wife protesting, started the dangerous two-mile trek to the dining hall.

"I couldn't see 10 feet in front of me," he said.

Wading through waist-deep snow and resting between dim light poles that gave him his only sense of direction, Nuval trudged on slowly.

"It was exhausting, and I thought about turning back," he said. "But I used a fence to pull myself along; though in some areas the snow was so deep I just had to crawl through it or roll over it. It took me a little over an hour to reach the dining hall. I was spent, but I made it."

And the Airmen got fed.

While Nuval doesn't recommend trying to battle Mother Nature and potentially risking your life like he did, he does try to instill passion in the Airmen he trains.

"I always encourage them to push the envelope ... to give the customer a better, tastier, more colorful product," he said.

He credits Tech. Sgt. Wesley Williams, a former Pentagon chef and Air Force enlisted aid who is now stationed at MacDill AFB, Fla., for helping him to become a food artist and culinary creator who pushes the limits of fine quisine.

"He opened the possibilities of fine dining to me," said Nuval, who was stationed with Williams at Ellsworth AFB at



Fast-paced slicing and dicing with razor-sharp knives can lead to chopped fingers. Chef Nuval says avoid losing focus or "showing off" to avoid a painful mishap.

Re-creating a dish that won on the Emeril Live show,

Chef Nuval makes rainbow fruit stuffed pork tenderloin and cheddar fried grits, with blueberry coulees.

the time. "Chef Williams is the reason I wanted to become a culinary chef. I just took hold of his shirttails and followed him. He made cooking fun."

Together, they worked on a dish that beat out all other military chefs and earned Williams a spot on the "Emeril Live" show with world-famous chef Emeril Lagassi. The show's producers flew Williams to their studio in New York City, and the episode aired on the Food Network in late June 2007.

"I was Sergeant Williams' sous-chef so he was the one to go on the show," Nuval said. "But I didn't care. I felt so privileged that Chef Williams picked me to help and that the meal we prepared won. I think he picked me because I have a similar passion to his. It was like we were able to read each other's culinary mind on how we wanted certain things to end up."

They prepared a specialty of Williams' — rainbow fruit stuffed pork tenderloin and cheddar fried grits, with blueberry coulees.

"The stuffed pork is unique — you won't find this recipe anywhere else," Nuval said.

Nuval is unique as well. After growing up in his family's restaurant and spending the last 17 years cooking for the Air Force, he definitely knows his way around the kitchen and never tires of his chosen profession.

As he taste-tested another mouth-watering creation, he said, "I was born to be a chef."



Serving as a souschef for Tech. Wesley Williams, Nuval and his mentor, shown here in 2007, made a dish that earned a spot on Emeril Live. This year, Nuval and his culinary team earned an award at the Military Culinary Competition in Washington D.C. Sept. 25.



Courtesy photo

Kitchen Chaos

Navigating through the most dangerous room in the house

Skin-melting fire, electrical shocks, boiling oil, scalding water, flesh-eating chemicals, poisonous concoctions, razor-sharp knives ... welcome to the "torture chamber" better known as the kitchen.

While the kitchen lures family members with its irresistible aromas, it also is the most dangerous room in the house, according to the National Home Safety Council. One out of 10 Americans suffers injuries in the home each year. The majority occur in the kitchen.

Thankfully, you can take action to reduce kitchen hazards and prevent mishaps. With Thanksgiving and Christmas feasts just around the corner, even more people will be drawn to the kitchen. So let's take a look at some of the dangers and what can be done to counter them.

KITCHEN FIRES: Always stay in the kitchen while cooking on the range, especially when frying food. In 75 percent of kitchen fires, no one is there when the fire breaks out. Microwave fires have started because someone pushed 30 minutes when they meant to hit three minutes on the timer and then left the room. Keep the area clean of spills — especially grease — which is extremely flammable.

KITCHEN APPLIANCES: Electrical appliances can lead to electrocution or fires as wires get frayed or they are allowed to come into contact with water. Turn appliances off and unplug them when not in use.

BURNS: Use back burners with pot handles turned in. Keep children and pets away from the range and keep a close eye on them at all times. Beware of loose sleeves and long hair that can go up in smoke. Use dry oven mitts and potholders.

SCALDING: Each year in the United States alone, more than 100,000 people go to hospital emergency rooms because of a scalding injury. Hot tap water from the kitchen sink can cause these burns. But the more serious injuries are from boiling water splashed or spilled from a pan. Also, boiling water in the microwave can actually cause the water to super heat and suddenly blow up in certain circumstances when you open the door. The best way to prevent that is to cook something — like a teabag — in the water.

POISONINGS: Keep all dangerous products away from food and drinks and lock them up after use. Be especially aware of products with fruit shown on the labels, which could be confused as being edible. Harmful cleaning products under the sink also can be a great danger to children, so it's important to always put child safety latches on every accessible cabinet door.

SHARP OBJECTS: Dull kitchen knives are actually more dangerous than sharp ones because the worn edge makes it easier for the knife to slip. A knife slip means a nasty cut, stitches or potentially even the loss of one of your treasured digits. Also keep knives out of reach of children. Put them away when not in use, as even bumping them off the counter can lead to a serious gash to the foot. Additionally, don't get distracted while using a blade, and avoid the temptation to "show off" while slicing and dicing.

SLIPS AND FALLS: The kitchen is a busy and sometimes crowded space. It's important to keep work areas clean. Spilled water or grease, as well as dropped eggshells or apples slices, can result in slips, falls and serious injuries.

— National Association of State Fire Marshals, U.S. Consumer Product Safety Commission, National Safety Council, National Home Safety Council

DRDD of a FEATURE

After more than 4,000 bird strikes last year, the Air Force aggressively works to reverse the trend

By DONNA MILES Photos by Tech. Sgt. SAMUEL BENDET Digital image editing by SAMMIE W. KING



ast year, National Transportation Safety Board officials confirmed that U.S. Airways flight 1549 struck a flock Canada geese, which were sucked into the engines and caused them to fail. The pilot, former Air Force aviator Chesley B. "Sully" Sullenberger III, successfully landed the plane in New York's Hudson River and is credited

with saving all 155 people on board. The incident brought public focus to a problem the Air Force, along with the airline industry, has long struggled to overcome.

In 2008 alone, the Air Force experienced more than 4,000 bird strikes, Eugene LeBoeuf, chief of the Air Force's Bird/Wildlife Aircraft Strike Hazard, or BASH, program at Kirtland Air Force Base, N.M., said.

Fortunately, LeBoeuf said, none of those bird strikes was classified as a "Class A" mishap - one that results in a death or more than \$1 million in damages (the classification changed to \$2 million in October). Still, collectively, they cost the Air Force an estimated \$35 million.

Bird strikes are on the rise, he said, and present a serious safety issue. The crash of an E-3B Airborne Warning and Control System plane in 1995 after takeoff from Elmendorf AFB,

Alaska, painfully drove that point home. All 24 crewmembers died when the plane struck a flock of Canada geese just after takeoff. "When you have a bird strike,

it's like throwing a rock into the engine," said Staff Sgt. Paul White, airfield operations supervisor at Andrews AFB, Md. "It stops the turbine from spinning, and that can be catastrophic."

The BASH program works to avert accidents like the one at Elmendorf and last year's

incident in New York. Based on a system of "integrated pest management," it aims to keep air bases, airfields and the air space and ground in and around them free of birds and wildlife that can hamper aircraft operations, LeBoeuf said.

That's a challenge, he said, with more Canada geese taking up permanent residence in the United States, a burgeoning snow goose population and a comeback for the pelican population after DDT and other insecticides were banned.

But birds aren't the only problem, LeBoeuf said. He's seen it all: deer, coyotes, wild pigs and even alligators finding their way onto Air Force flight lines. "They're mobile speed bumps, and aircraft don't take kindly to them," he said.



Step one in the BASH program is "habitat alteration," which LeBoeuf defined as making airfields as uninviting as possible. Anything that might serve as a perch is removed, denying birds an elevated place to roost. Potential perches that can't be removed get spikes driven into them.

Meanwhile, low spots are filled in to prevent watering holes.

Dan Vredenburgh, a contractor who oversees Andrews Air Force Base's BASH program, follows the Air Force protocol of ensuring grass around the airfield is maintained between 7 and 14 inches. That's too short for ground birds to nest in, but too long for them to feel safe feeding in, he said.

"These are the benign approaches, but if they don't work, we turn to more active techniques," LeBoeuf said.

In a word, he defined that as "harassment."

Vredenburgh, for example, has a whole list of tricks to make Andrews unwelcoming to seagulls, blackbirds, starlings, turkey vultures, cowbirds, ducks and geese that frequent the region.

He fires off pyrotechnics and propane cannons as needed to scare birds from the 4,320-acre base. One of his most effective tools is Bree, a two-tone border collie that chases away birds or other wildlife that might be tempted to take up residence. Vrendenburg and Bree patrol the base regularly, and he sets her loose when he discovers birds roosting.

"When she takes off, they leave in a hurry," Vrendenburgh said. "After a couple of times, they probably won't come back." Other bases use different techniques. The Royal Air Force base at Mildenhall in England, for example, relies on a Moroccan lanner hawk named Goldie to ward off unwanted birds. At Manas Air Base in Kyrgyzstan, a luger falcon named Mustang helps to keep unwanted birds at bay.

But no preventive measure will keep birds and other wildlife away indefinitely, LeBoeuf said. So as a last resort, BASH officials get the permits required to shoot, trap or otherwise remove them from the area.

At Andrews — home of the 316th Wing as well as the 89th Airlift Wing that flies Air Force One and other aircraft in support of the president, vice president and senior U.S. leaders these measures are helping to reduce bird strikes.

Andrews reported 20 bird strikes in fiscal 2008, down from 30 in fiscal 2007 and an average of about 34 a year in past years, Vredenburgh said. Nearly all involved small birds, and, fortunately, none inflicted major aircraft damage or forced an emergency landing.

"We understand the importance of what we do, and believe we're helping reduce the problem through our efforts," he said.

"There's no question that the BASH program is making a difference," LeBoeuf said. "It saves lives, aircraft and allows us to maintain our mission. It's a very important program."

Ms. Miles is a writer with the American Forces Press Service in Washington D.C.





Officials credit monitoring grass height around runways with helping to deter birds that prevent a hazard to aircraft operations. Here, mowers at Eglin AFB, Fla., ensure grass around the runway is more than 7 inches high, because birds are less likely to land where they can't see each other.

Goldie, a 9-year-old Moroccan lanner hawk,

gets rewarded for helping scare away birds at Royal Air Force Base Mildenhall, England. Keith Mutton, who helps run the Air Force's bird/wildlife aircraft strike hazard program, let's Goldie launch from his arm at speeds up to 40 mph to chase away and ward off unwanted birds that are safety threats to aircraft.

EARL AND THE CHICKEN' A TALE OF TWO INSTRUCTOR PILOTS

By Gen. **STEPHEN R. LORENZ** Photo by Tech. Sgt. **MATTHEW HANNEN**

Air Education and Training Command is primarily made up of students and instructors. On the surface, the instructors simply teach certain skills so that students are ready for new challenges. In reality, they contribute so much more. Instructors make us better Airmen and continually raise our level of performance by enforcing the standards. They make a difference by tailoring their message and connecting with each and every student. I cannot tell you the number of times senior officers and NCOs have told me stories about an instructor who made a difference in their lives — I know you can think of instructors who had a positive impact in your life. I am no different. Let me tell you about two instructors that helped shape who I am today.

The first instructor who made a difference in my life was Capt. Leonard J. "Chicken" Funderburk. He flew OV-10s in Vietnam and was awarded the Air Force Cross for heroism. He flew hard, played hard and, at 6-foot-5 with a black belt in karate, was larger than life. Numerous stories about his heroic feats in Vietnam and phenomenal instruction in the T-37 Tweet were passed down from class to class.

Even before my class left academics to start flying the T-37, we were awed by Chicken's reputation.

After graduation from academics, I was assigned to D Flight in the 43rd Flying Training Squadron at Craig Air Force Base, Ala. Along with two other classmates, I sat at a table right next to Chicken's. Every day, I had a front row seat to Chicken's post-flight debriefings — it was a sight to behold. Chicken dissected each and every element of the training sortie and demanded that each of his students were well prepared and flew their best. His students always started the debrief sitting straight up in their chairs, nervous smiles trying to feign confidence. This posture never lasted long. After two hours of continuous critique, smiles quickly vanished and bodies eventually melted toward the floor.

I was so thankful Chicken was not my instructor.

I flew training sorties with my assigned instructor and had some good days and others I'd rather forget. Unfortunately, one of those not-so-good days was my "pre-solo" sortie. I "busted" the ride and wasn't cleared to solo like my other classmates. I was absolutely crushed. My flight commander decided that I needed a change and called me into his office. He told me he was shifting me to a new instructor. I'm sure he watched the color leave my face when he told me my new instructor would be Chicken.

I begged him not to do it — especially after just having busted



a ride. I started to doubt that I would make it through the program. The next day I sat across from Chicken, mortified. I knew he could see right through my feigned smile. I tried to focus on my sortie as his deep voice stepped through the elements of the upcoming presolo mission.

He told me one thing over and over again, "Always be hot and be high; never be low and be slow!" He must have said it 10 times.

He took me out to the flight line and had me climb into the



"My overconfidence had led me to become complacent. During flight operations, much like other career fields, complacency can kill."

Air Force Base, Calif., and was selected to upgrade to instructor pilot in the KC-135. In order to upgrade, everyone had to complete a six week program called, Central Flight Instructor Course. It was a very demanding course, which trained upgrading

— Gen. Stephen R. Lorenz AETC commander

instructors about how to teach aircraft systems and flight procedures. It emphasized the many ways students could unintentionally back into harrowing situations and helped instructors to correct the errors before everyone onboard became another safety statistic. I didn't bat an eye when Capt. Rusty Findley (now Lt. Gen. Rusty Findley, Air Mobility Command vice commander) and I were teamed with the most famous KC-135 CFIC instructor in the fleet at the time, Lt. Col. Earl Orbin.

both my professional and private lives. I have never forgotten him

I encountered the second instructor whom made a difference in

my life much later in my career. In 1986, I was stationed at Castle

or how he made a difference in my life.

Colonel Orbin was famous for being straight forward, thorough, relentless and demanding. We had both heard horror stories about how challenging his level of instruction was. Now, Rusty and I had been flying the KC-135 for years. We were long on experience and confidence, and looked forward to the course. After all, we knew the KC-135 and its systems inside and out. For us, the instructor course was going to be a breeze.

Through a series of Colonel Orbin's challenging training sorties, including grueling pre-briefs and debriefs, one thing became clear: I was too overconfident in my existing abilities and systems knowledge. My overconfidence had led me to become complacent.

> During flight operations, much like other career fields, complacency can kill. It can lead one to overestimate his own abilities while not paying enough attention to the student's lack of ability.

I quickly changed my approach, increased my level of preparation and arrived each day on top of my game. I left the course with the instructional skills I would need during each upcoming mission. Colonel Orbin was fair, firm and demanding. He pushed Rusty and me — forced us both to grow as aviators and instructors. He reminded us that flying is an unforgiving business where everyone's limits vary from day to day, sortie to sortie. We needed to balance our own limits with those of the student.

Since then I have learned to apply this lesson in other areas of my life as well. I think it has made me a better aviator, officer, husband, father and friend.

Instructors, like Captain "Chicken" Funderburk and Colonel Orbin, make a difference each and every day and are the backbone of our Air Force's excellence. Although my instructors employed different techniques, they looked at me through a clear lens, saw where I needed improvement and tailored their instruction specifically for me.

When you have the opportunity, follow the lead of Chicken, Colonel Orbin and all the instructors who made a difference in your life. Take the time to make a positive impact in each of your student's lives — regardless of whether those "students" are found at work or in the community. It's what I strive to do each and every day, and it's the only way that our Air Force will remain the best in the world.

T-37. Since I had busted the previous pre-solo ride, I knew this sortie really counted.

We took off, and he set me up first for a straight-in approach, followed by a single-engine and then no-flap landing. As I look back, each one of these approaches was average to slightly below average.

After the last planned approach, Chicken turned to me and yelled, "Lorenz, you are going to kill me; put her on the deck!"

With those words, I knew I was finished and probably going to wash out of pilot training. I landed ... and then he told me to shut down the number two engine. All of a sudden I realized he was going to let me solo. I was elated.

As Chicken stepped from the aircraft he once again said, "Always be hot and be high; never be low and be slow."

I took off and had a very uneventful solo sortie. Chicken realized that I lacked a little confidence and just needed the right kind of instruction and motivation to succeed. Over the next few months, Chicken's demanding teaching style gave me the confidence to not only complete pilot training, but to face subsequent challenges in



MASTERS OF **EMASTER** ACCEPTANCE CREW ENSURES FLIGHT SAFETY FOR AIR FORCE

PRINCE GEORGE, Va. (AFNS) — Whenever Boeing officials roll a brand new C-17 Globemaster III off the plant in Long Beach, Calif., Tech. Sgt. Sidney De Leon and his team have to ensure it's ready for the Air Force to fly it.

De Leon is one of the Defense Contract Management Agency C-17 acceptance crew members.

"The Air Force expects to receive a perfect product, and it is up to us to identify and correct any problems before we accept the aircraft for delivery to the C-17 fleet," said De Leon, a loadmaster,

The idea is for the crew members to recognize those

troubles at the plant, fix it and then deliver it to Air Force officials. "We inspect every single switch, button, system," De Leon said. "Once all that is done, we do engine runs to make sure the engines

are up to par." Once they complete all the ground checks, they taxi to the runway to do a reject takeoff to ensure the brakes work. After that, they take off for the very first time.

"Most people would be amazed at the problems a single loose screw can cause," De Leon said. "Our job is to fly these airplanes with the understanding that there may be problems encountered while we're airborne."



Tech. Sgt. Sidney De Leon

The flight crew usually flies about five hours performing various critical aircraft systems checks. Some of those include shutting down engines in-flight, dropping the landing gear manually, validating the stall warning system, and whatever else needs to be done to ensure the aircraft is safe. Once the airplane passes all the inspections, the pilot and the loadmaster sign a book certifying the airplane is ready to be flown by the Air Force and Boeing C-17 customers.

"This position gives me another perspective about how the Air Force and the civilian sector are tied to-

gether," De Leon said. "It takes a team effort to produce and verify the capabilities of the C-17. Once we deliver a new jet, (it is) immediately being used to transport military troops and cargo worldwide, including wounded Soldiers out of hostile locations to medical facilities at a moment's notice."

So De Leon takes his job seriously when performing such tasks as evaluating the contractor's flight training and ground safety programs.

"Attention to detail is key in this business," he said. "The lives of many people are at stake if we don't do our job well.'

> – Cassandra Locke Defense Contract Management Agency Public Affairs

Before hauling Soldiers like these ones from Fort Richardson, Alaska, C-17 Globemaster III cargo aircraft don't get into the



RUDDER FAILURE CAUSES

WRIGHT-PATTERSON AIR FORCE BASE, Ohio (AFNS) — An Air Force accident investigation board has determined that a failure in the rudder operating mechanism caused the crash of a T-38 aircraft on a training mission 12 miles north of Edwards Air Force Base, Calif., May 21. The report states the failure was most likely because of maintenance issues.

Maj. Mark Paul Graziano, a student pilot from the Air Force Test Pilot School, died as a result of that accident. His student navigator, Maj. Lee Vincent Jones, sustained serious injuries for which he is still undergoing treatment.

The Test Pilot School is a unit in Air Force Flight Test Center at Edwards. The aircraft, assigned to the test center, was destroyed.



A T-38 accident investigation report stated that "insufficient supervisory oversight and a lack of discipline of the training process" was a factor in the maintenance malfunction that caused the aircraft to crash, killing one pilot and severely injuring another.

Dollar loss was estimated at \$6,407,808.

Maj. Gen. Curtis Bedke, president of the accident investigation board, said, "The loss of Major Graziano and the injuries to Major Jones are tragic. Both were highly regarded by their peers and superiors. Our thoughts and prayers continue to be with them and their families."

In the Air Force Materiel Command accident investigation report, which was released in October, Bedke stated, "I find clear and convincing evidence that the cause of this mishap was a failure of the rudder operating mechanism, which disconnected the flight controls from the rudder actuators and caused the rudder to deflect 30 degrees left. This hard-over rudder induced an uncontrollable yaw and a resulting roll, causing the aircraft to depart controlled flight. This condition is unrecoverable in the T-38."

The report identified two potential causes for the failure of the rudder operating mechanism. The first is a structural fatigue failure or structural break in a critical component or bolt; the second is a maintenance error in which a nut or cotter pin did not properly secure a bolt connecting two critical components. Citing two historical cases of rudder failure, the report concluded that maintenance error was the more likely cause of the rudder failure.

The report stated that "insufficient supervisory oversight and a lack of discipline of the training process" was a factor. Significant discrepancies were noted regarding maintenance procedures and documentation of training.

The report said, "In the vast majority of cases, the aircraft maintenance mechanic had likely received appropriate training in the past (almost all civilian employees interviewed testified to having prior military service, most in the Air Force as upper level maintenance mechanics). However, lack of documentation in the training process made verification impossible."

by Tech. Sgt. Quinton Burris

AIR FORCE DISCOVERS WHAT DESTROYED JET, KILLED PILOT

LANGLEY AIR FORCE BASE, Va. (ACCNS) — A pilot's failure to recognize his altitude during night, low altitude high-angle strafing training caused the crash of an F-16 Fighting Falcon at the Utah Test and Training Range June 22, according to an investigation report released Sept. 28.

The pilot, Capt. George B. Houghton, was killed upon impact, and the \$21.3 million aircraft, assigned to the 388th Fighter Wing from Hill Air Force Base, Utah, was destroyed.

Investigators said there was no damage to personal property.

According to the Air Combat Command Accident Investigation Board report, the pilot was likely focused on visually positioning himself for an attack and was unaware of his low altitude.

The report said that there was no evi-

dence the pilot attempted to recover from the diving approach on the target or that he attempted to eject.

The board also found five factors that substantially contributed to this mishap:

• Although the mission pilot was current, qualified and appropriately supervised, he had limited total experience in this type of event.

• The mission pilot channelized his attention on attempting to visually prosecute the attack, to the exclusion of visual and audible cues of a more immediate priority.

• The mission pilot failed to perform an effective visual scan of flight instruments.

• The mission pilot's mental expectation of his aircraft parameters was distinctly different from reality, making it difficult to mentally process data appearing contrary to what he was expecting. This altered his



An F-16 Fighting Falcon crashed after a pilot's failure to recognize his altitude during night, low altitude high-angle strafing training. The pilot died in the mishap.

perception of the target, ground cues and altitude indications.

• Low-illumination conditions and lack of terrain contrast made it difficult for the mission pilot to visually distinguish terrain features and recognize his close proximity to the ground.