

The Combat EDGE

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The Combat EDGE

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SSgt. Greg L. Davis



HAVE A SAFE HOLIDAY SEASON!

The holiday season is upon us. It brings a number of seasonal challenges like shopping for gifts, traveling long distances to be with family and friends, winter weather, icy road conditions, and participating in sports for the first time in a year. This season also comes with its military challenges such as deployments, longer shifts, force protection duties, picking up duties for those on leave, and combat operations. Any of these activities can lead to increased personal risks. Everyone should conduct their own Personal Risk Management (PRM) assessment and mitigate the risks before engaging in the seasonal activities. Don't take unnecessary risks. Commanders, supervisors, coworkers, and peers should all be alert, engaged, and take action when someone they know plans to over extend themselves during the holidays, because we need everyone to defend our country.

Happy and Safe Holidays ...

Colonel Kevin Smith
ACC Chief of Safety



Photo by SSgt. Christopher Matthews

Been There!

Tales



Done That! of the Instructor Pilot

By Maj. Robert A. DeStasio, Langley AFB, Va.

Ah, my fini-flight. There were no clouds and the water was as smooth as glass — a beautiful day over the Gulf of Mexico. The mission was an advanced basic fighter maneuver sortie for a B-courser about to graduate F-15C formal training unit. After 20 minutes of utterly humiliating the poor Eagle driver-to-be with my superior fighter pilot skills, it was time to go home. As we set up for our formation landing, my mind was filled

got out my checklist and scanned the page. “Yes, yes. I’ve seen this a million times. We just land normally.”

I called the Supervisor of Flying (SOF) and told him what we had and that we were going to land normally. Then the words came across the radio for all fighter pilots based at Tyndall to hear, “The checklist calls for an approach-end arrestment.” I couldn’t believe it. I had just scanned the checklist. I scanned it again — only this time,

true these words were until I became one of those 2,000-hour instructor pilots. I probably should have known how true they were as a wingman, but I could hardly get up on frequency, much less realize what a hazard to aviation I was. I had always remembered those words and tried hard not to become one of his statistics. However, things had changed. My focus on taking the fight to the enemy and turning him into hair, teeth, and eyeballs had changed to



Photo by SSgt. Sean Worrell



Photo by TSgt. Steve Faulisi



Photo by SSgt. Blaze Lipowski

with images of being “hosed down” and my wife and little girl standing there laughing.

I signaled to put the gear down and we did; however, my wingman’s formation became very erratic, and as I glanced over to him, I noticed something was wrong. A potato later, he came across the auxiliary radio and said, “I have no landing gear at all.” We went around from the approach to give us some time to deal with this and set up a box pattern. His gear was down, but there were no gear down indications in the cockpit. I

I actually read every word. Sure enough, a recent change to the Dash-1 had, in fact, changed the checklist and required taking a cable for this situation. My wingman took the cable uneventfully and I landed normally.

After the debrief, the words of my first squadron commander came back to haunt me. Before I flew my first operational sortie he told me, “There are two groups of people who cause more mishaps than any: the new inexperienced wingman and the 2,000-hour instructor pilot.” I had no idea how

watching the sortie board and turning pilots’ 781s into 1.8s or 1.9s. I had become “one of them.”

The unfortunate part of our business is that we often put those two groups of people together. Why? Because there is no other way to pass on the experience of 2,000-hour fighter pilots to the new wingmen except to fly them together. Our history is filled with incidents involving this combination. I had seen this scenario play itself out in my squadron at one of my earlier assignments.

Soon after I arrived, the squadron commander was giving a mission qualification training check to a new wingman. During their radar trail arrival, number two (the new guy) put his gear down and had an unsafe gear indication. The flight lead rejoined on number two and confirmed his gear was down, but the checklist still called for a cable arrestment.

The flight lead contacted the SOF and informed him of the situation. The SOF asked if they could hold while he got some other aircraft in before they took the cable — a simple request that soon turned sour. The flight lead raised his gear and went back with his

quick “Say again” from the flight lead with a slightly higher pitched voice. The flight lead coordinated for an immediate turn to the field. At 10 miles, number two had 500 lbs. At 5 miles the flight lead called for the gear and asked number two his gas. “Four hundred lbs.” In an effort to save gas, the flight lead directed number two to shut down an engine, which is not an accepted procedure. Number two complied. At 250 lbs (within the plus or minus tolerance of the gauge), number two touched down, took the cable, and immediately shut down the other engine.

What happened? How did a relatively low threat Emergency

may have to jump out. He replied, “No, I was with the squadron commander.”

I am not suggesting in this article that young wingmen should never fly with 2,000-hour instructor pilots. Instead, my intent is to show how easy it is to become overconfident by relying on past experiences and not preparing for the future. High-time instructor pilots must force themselves to study and know the Dash-1 cold. They must also listen to their wingmen. As much as many of us shun the term crew resource management in fighters, it is a useful tool to deal with stressful situations. Experienced instructors should always



wingman into the radar pattern. The radios became intense as the SOF and flight lead coordinated to get as many aircraft in as possible. After a few minutes, number two’s “fuel low” caution came on. Number two tried to convey this to the flight lead, but was told, “Standby, I don’t need any inputs from you right now.”

Not wanting to upset his squadron commander, number two didn’t say another word until

Procedure (EP) turn into a near Class A mishap? Two things. First, the flight lead had a strong “been there, done that” attitude, and second, the new wingman knew he was flying with a highly experienced fighter pilot who would not let him down. The “been there, done that” attitude resulted in over confidence and a feeling of being able to deal with an EP and all the wing’s aircraft at the same time. The one miscal-

listen to their wingmen, if only to determine the level of task saturation during trying situations. Your decisions should be based on a combination of experience, systems knowledge, and your wingman’s current capabilities and condition — not his condition in the brief. Wingmen should never forget that they are the aircraft commanders of their jets. Wingmen must also have a thorough knowledge of systems and a

The SOF asked if they could hold ... before they took

asked. At 20 miles from the field, during the base turn to the instrument landing system, the flight lead asked number two’s gas. “Eight hundred lbs,” he answered — 800 lbs is emergency fuel in the Eagle! This was followed by a

culcation he made was that his gear was up and his wingman’s was down, resulting in dramatically different fuel consumption. He assumed their fuel was matched. I asked number two after the flight if he was ever scared or knew he

good understanding of the results of their actions. If a flight lead ever puts you in a bad position, be ready to plead your case with precise information and procedures. You may well be the link that breaks the chain to a mishap. ▶



the cable — a simple request that soon turned sour.

Photo by SSgt. Sean Worrell



Safety

The 187th Fighter Wing, Alabama Air National Guard, has surpassed 50,000 accident-free flying hours, which equates to 18 years of mishap-free flying that began when the unit started flying the F-16 aircraft in 1988.

“It is truly amazing to think of all of the things that come together to get these planes off the ground and back home safely,” said Colonel John White, commander, 187th Fighter Wing. “Not just the maintenance,” he continued, “but all of the skills and talent that keep the base running smoothly, so that the planes can fly, have a part in safe flying.”

flying the F-16. “They aren’t just coworkers,” stated Major Curt Fuller, Quality Assurance Officer and former F-16 pilot. “They are family!”

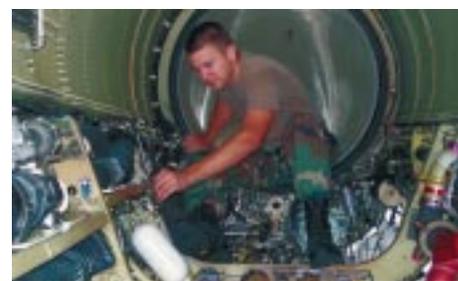
And with that sense of family, comes tradition. One key tradition is the importance placed on safety. Colonel John M. Williams, commander, 187th Logistics Group, plays a major role in upholding this tradition. “All of my people know that if they do things by the book and something goes wrong, I’ll stand behind them,” Williams proudly said. “The lowest ranking airman on the flightline knows that if he feels the airplane is not safe to fly, he has the power to

power. It is the tradition of safety that flourishes as a culture within the unit that provides the basis for that power.

Tradition, pride, honor — just some of the many factors that motivate the individuals within the 187th and help to foster the culture of safety that helped them be the first to reach this significant milestone. Safety awards and recognition are not the focus behind their work, but a byproduct of that culture. All factors combine to create a culture within the 187th that enables the members to find the motivation they need to drive them towards excellence. It is that culture that binds the more than 1,000



Photos by MSgt. Walt Lynch



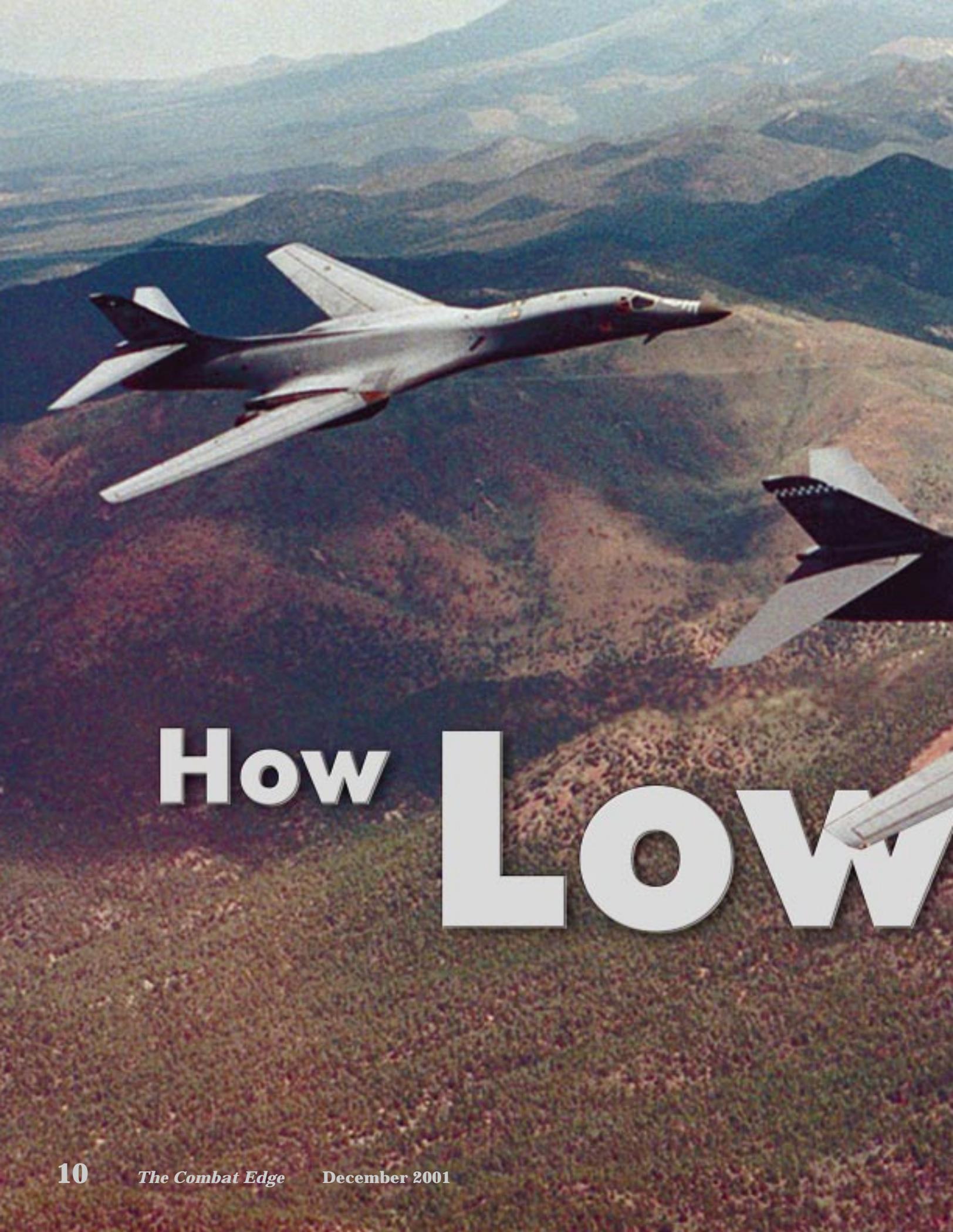
“More than that, it is the bonds brought about by the sense of family, tradition, pride, and honor that motivates the men and women of the 187th to accept nothing short of excellence,” White said. Many of the members have been working together longer than the 187th has been

ground it.” Williams, like all commanders and supervisors of the 187th, regularly remind their people that they are expected to keep safety first and have the power to stop any situation that might result in an accident. Yet it isn’t Williams’ words that provide that

members into a cohesive group with a common focus and makes them a family, steeped in tradition, proud of who they are, and honored to serve. To them “50,000” is just another number. Accident-free flying, on the other hand, is a daily objective. ▶

Southern Style

By Maj. Joyce Guthrie and 2Lt. Sam Hayes, Almont ANGB, Ala.



How Low



Can You Go?!

By Lt. Col. David Hagginbothom, Langley AFB, Va.

As a former Bone driver (B-1), I used to have “FLY LOW” vanity license plates on my Corvette. Much to my chagrin, I had to explain to more than one state police officer that this only referred to B-1 Terrain Following Radar (TFR) operations. As we all know, flight safety statistics show that the lower you fly, the higher your chances of a reportable mishap. Since we still train for low-level combat employment, it’s imperative you always know the answer to the title question.

overfly a low-level route a couple of states away, all at Instrument Flight Rules (IFR) altitude. Sure sounds easy, and pretty safe too, right? It might have been, if it had not been for a chain of events, which could have cost us our lives.

Luckily for us, the route was considered “mountainous” in parts. This meant we had a 2,000-foot buffer between the Kevlar bomb doors and terra firma, instead of the usual 1,000 feet. It was a moonless night, flying over sparsely populated terrain with few ground lights. As

stick just enough to insidiously disengage the autopilot (there is no audible disconnect tone like other autopilot systems). Since we were almost perfectly trimmed for level flight, there was no “seat of the pants” feel for the ever-so-slight descent that had commenced.

The tape instruments in the B-1 cockpit take a little getting used to, but are very practical; with one critical exception — the altimeter. It is way too easy to misread it and be off by 1,000 feet; something I’d dare say almost every Bone driver has seen

Since we still train for low-level



imperative you always know th

To illustrate my point, I offer two “There I was ...” stories. Both of these had the potential to be written by Class A safety investigation board teams. Happily, I am around to write them myself!

Flashback to 1989, a year when the average, present-day jet jockey was in about sixth grade. The B-1’s radar software allowing night TFR was on the verge of being released. In anticipation of this, we were scheduled to

a result, there was practically no sensation of speed or altitude, just our cockpit instrument read-outs.

The autopilot was on altitude hold, and all were comfortably confident that we were at a carefully computed safe altitude. However, the saying “complacency kills” should have put a double shot of Crew Resource Management or “CRM” in our coffees. Unbeknownst to us, one of our knees must have biased the

at least once or twice (especially if you ask them anonymously). As a “young” copilot, I thought, at first, that I was simply misreading the altimeter. My second thought was that I had misheard or misremembered the announced IFR altitude. A quick query over the intercom “awakened” everyone’s situational awareness and an abrupt climb back up to “safe” altitude was made. We had descended almost exactly 1,000 feet! The knowl-

edge that the radar altimeter said there was still another 1,000 feet below us was little consolation to the sobering reality that we could just as easily have been cutting down corn or plowing wheat fields in Kansas.

Fast-forward a little bit to 1993, when today's fighter drivers were just learning to drive the family car. During the high-level cruise back to "home drome," after exiting that very same low-level route, the cockpit began filling with very strong and instantly irritating electrical fumes. As we pre-briefed, the

descend to 8,000 feet and instructed us to report turning base with our gear down and choose one of their several 10,000-plus foot-long runways. Depressurized; ears popping; cabin now clear of fumes; eyes, nose, and throat still offended despite the blast of 100 percent oxygen; adrenaline pumping; and emergency checklists and the flight information publications kit torn open, we continued descending through 13,000 feet.

Just then the other WSO announced the Minimum Safe Altitude (MSA) for Albuquerque was

and to confirm whether or not we had the field in sight. Upon learning we were still northeast of town, with the mountain range between us and the base, and that we did not have the field nor even city lights in sight, they excitedly instructed us to climb and maintain 12,000 feet. That was already done, thanks to great crew coordination that we now call CRM.

What's the one common thread that, in both instances, prevented us from becoming mishap statistics and a new WARNING in the Dash-1? Knowledge of the MSA! It can go by many different names:

Level combat employment, it's



the answer to the title question.

Weapons System Officer (WSO) slewed the nav cursor to the nearest suitable emergency field, which happened to be Kirtland AFB, on the south side of Albuquerque, N.M.

While descending as rapidly as possible to get below 18,000 feet where we could safely depressurize without technically becoming "physies," we declared an In Flight Emergency (IFE) with center who handed us off to approach. Approach cleared us to

12,000 feet on account of cumulo-granite known as Sandia Peak, which crests at 10,852 feet. This timely call prompted an abrupt level off and a simultaneous radio call to approach requesting clarification of assigned altitude. Their response was not an answer, but rather two questions. They asked us for our radial and distance measuring equipment from the VORTAC or Very High Frequency (VHF), Omni-directional Radio, Tactical Air Navigation (TACAN),

Minimum Envelope Altitude or MEA, Minimum Obstacle Clearance Altitude or MOCA, Off Route Obstacle Clearance Altitude or OROCA, Off Route Terrain Clearance Altitude or ORTCA, Emergency Safe Altitude or ESA, Maximum Elevation Feature or MEF, and, finally, Minimum Vectoring Altitude or MVA. The risk of not *always* knowing it can be fatal. So ... always know how low you *can* go, as you continue to fly safely! ▶

A

I was out with my wife and two daughters having a wonderful time at a remote-controlled car raceway on a quiet Saturday night. It was a normal evening until my First Sergeant arrived.

I could tell by his expression that something very serious had happened. He approached me and asked me to step outside. My mind raced as I followed him out to the parking lot where my squadron commander and the base chaplain met us. I could not imagine what could have happened that my supervisor would have to find me on a weekend.

My blood ran cold as my commander took me by the hand. He spoke with heartfelt sincerity as he told me that my mother, only brother and sister-in-law were killed several hours earlier when my brother's car collided with a semi-truck.

I remember saying, "No!" over and over again as I struggled to accept that my family was gone. I knew "how," but I wondered "why" the accident happened. The answer turned out to be something that each of us needs to take seriously: poor driving habits.

Every year, there are 83,000 vehicle accidents in the United States and 43,000 people die as a result. Most deaths could be prevented if drivers would take a few moments to respect the power of vehicles. An automobile is capable of inflicting tremendous physical damage. A car accident not only has the capability of destroying physical property, but it

Potential Killer

Under Our Control

By SSgt. Dudley C. Riner, Kadena AB, Japan



can sever precious family ties as well.

I believe my brother did not realize that his car could become a killer because he disregarded his seat belt. Nobody in the car, not even the children, were wearing a seat belt. The vehicle was estimated to be moving at 65 miles per hour, 10 miles an hour over the speed limit. The momentum of the impact was equivalent to the destructive power of falling from a height of nearly seven stories. Additionally, the car's maximum occupancy was exceeded, which they think played a role in the accident. The car, designed to hold four individuals, had three adults and three children crammed inside.

Why the car unexpectedly veered to the left into the truck's path was never officially determined. Allegedly, the semi-truck driver saw a child in my brother's car moving from the back seat to the front. The driver stated that my brother was turned toward the rear seat, one hand on the steering wheel. This caused him to accidentally steer the car into the path of the oncoming truck. They collided with

enough force to rip the rear axle off the truck's trailer. It's a miracle that my three nephews survived.

My brother had served 4 years in the 82nd Airborne Division at Fort Bragg, N.C., and was in the Gulf War. I am sure he considered facing the Iraqi Army a real danger, but like most of us, he may have taken the destructive power of his car for granted.

Don't take your car for granted. Keep it in good running order, not just for your safety, but for the safety of others. My brother's car had rack-and-pinion steering, which was in need of repair. I had driven the car 2 weeks before the accident, and I noticed I could turn the steering wheel half a turn before the worn teeth of the steering gear would engage and turn the car. My brother continued to drive the car, although the vehicle was unfit for highway use. That worn steering gear may have contributed to the accident, but it only played a minor role in comparison to my brother's attitude toward driving safety.

A cavalier attitude toward driving safety is more dangerous than a single worn part. We should have a deep respect for the incredible power of momentum. A bird might as well be a brick to a fast-moving jet aircraft. A single bird can totally destroy a jet engine or tear a hole in an aircraft's fuselage or windshield. My brother and his wife were killed instantly when their car hit the rear axle of the truck's trailer. The sheer power of inertia is a terrible force to contend with in a collision. It is a killer force that we have to respect, and that respect should include good driving practices.

The continuing success of a military mission depends directly on our ability to make sound deci-

sions — on and off duty — about our personal safety. If someone is injured in a car accident, they may not be able to uphold their duties they have sworn to fulfill. All injuries directly impact personal readiness and our ability to mobilize worldwide. Whether it's in peacetime or wartime, our country needs us to be fully operational so we can accomplish the mission.

By following good driving practices we can protect ourselves, our family, our military mission and others, who are on the roads. Unlike those remote-controlled cars I was watching on that fateful night, real car crashes have serious consequences. I have begun to recover

A cavalier attitude toward driving safety is more dangerous than a single worn part.

from the night's shock with the help of several Air Force chaplains and close friends. My tragic loss has shaken me into a new awareness of the importance of driving safety.

I do not blame my brother for the accident. In my mind, he fell prey to a complacent attitude that we all have experienced at one time or another. Please let my words have meaning for each of you so that together we can reduce the number of traffic fatalities in the United States.

The last thing my mother said to me was, "I love hearing the sound of your voice." Now, because of a killer force that we have the ability to control, I will never hear her sweet voice again. Please drive safely. ►



B-52

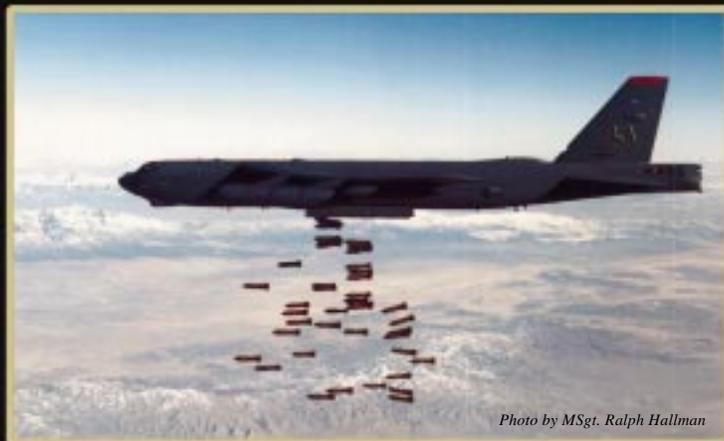


Photo by MSgt. Ralph Hallman

For more than 40 years Air Combat Command's B-52 Stratofortresses have been the backbone of the manned strategic bomber force for the United States. The B-52 is capable of dropping or launching the widest array of weapons in the U.S. inventory. It can carry gravity bombs, cluster bombs, precision guided missiles, and joint direct attack munitions with worldwide precision navigation capability.

Primary Function: Heavy bomber • Contractor: Boeing Military Airplane Co. • Power Plant: Eight Pratt & Whitney engines TF33-P-3/103 turbofan • Thrust: Each engine up to 17,000 pounds • Length: 159 feet, 4 inches • Height: 40 feet, 8 inches • Wingspan: 185 feet • Speed: 650 miles per hour Ceiling: 50,000 feet • Maximum Takeoff Weight: 488,000 pounds • Range: Unrefueled 8,800 miles • Armament: Approximately 70,000 pounds (mixed ordnance — bombs, mines, and missiles. (Modified to carry air-launched cruise missiles, Harpoon anti-ship, and Have Nap missiles.) • Crew: Five (aircraft commander, pilot, radar navigator, navigator, and electronic warfare officer) • Accommodations: Six ejection seats • Unit Cost: \$74 million • Date Deployed: February 1955 • Inventory: Active force, 85; Reserve, 9

Biological Attack: Don't Panic, Know the Facts

By Staff Sgt. Eric Grill, Air Force Print News

LACKLAND AIR FORCE BASE, Texas — Officials from the 59th Medical Wing want people to know that despite recent accounts of anthrax cases being reported since the Sept. 11 terrorist attacks, there is no reason to panic.

While people know how to react to terrorists' bombs, people do not know how to deal with diseases, said Maj. Caroline De Witt, acting chief of infectious diseases for the 59th MDW at Wilford Hall Medical Center.

"We are here to reassure people that many of these diseases are treatable if caught early," De Witt said. "The military has been studying possible agents of bioterrorism for a very long time, and we've had years of training to prepare for events like a biological attack."

Education is the key to abating some of the fears that people may have about infectious diseases, De Witt said.

People have been going to military surplus stores and buying gas masks because of that fear, but De Witt said biological agents like anthrax have inoculation periods, and "gas masks won't apply."

While there is a nationwide concern about some sort of biological attack by terrorists, De Witt said that both civilian and military medical officials are ready, and the nation has spent years developing a national pharmaceutical stockpile.

Any of the military services have detailed readiness plans and are able to augment public readiness officials if needed, De Witt said.

Some of the diseases medical officials are watching for include anthrax, smallpox and plague, De Witt said. Smallpox was eradicated worldwide and routine vaccination was stopped around 1980. Therefore, many people remain susceptible to the disease.

Anthrax is produced by the bacteria "Bacillus anthracis." A tough protective coat allows the bacteria to survive for decades as spores.

Anthrax is dangerous because it is highly lethal if not caught in time. It is one of the easiest biological agents to manufacture and relatively easy to develop as a weapon. Anthrax spores, while extremely diffi-

cult to aerosolize as a weapon, can be easily spread over a large area and easily stored.

The disease also has an incubation period of 1 to 6 days between exposure and symptoms, officials said.

Because of this, De Witt said, "There is reason for a heightened sense of alert, but be reassured that panic is not needed. Very few (biological) agents can be transferred human-to-human, and many of the diseases are benign and can be treated easily, if caught early."

Anyone who suspects that they have come into contact with a suspicious substance should report it to authorities immediately, De Witt said. The earlier it is reported the better chances of determining what that substance is.

De Witt said that these people should not take any medicines without seeking medical attention first.

"Professionals doing the field tests will let a person know whether they've been exposed or not," she said.

"Field tests can be done quickly and easily to determine if a person was exposed to a biological agent," De Witt said. But, it takes about 24 to 48 hours to confirm what that biological agent is."

While it sounds like a good idea to have a stockpile of medicines in a persons' medicine cabinet, De Witt said she advises against it. These medicines have side effects that can be dangerous if not taken properly; taken by a child; or taken by someone who is pregnant.

For more information about anthrax, contact local medical professionals, or go online to the Department of Defense anthrax web site.

ACC Safety is Proud of All Our Award Nominees

Mr. Hubert J. Jones
Electronic Equipment Specialist
29th Training Systems Squadron
Eglin AFB, Fla.





Unit Safety Award of Distinction

Operating Location AD (OLAD) is a geographically separated unit of the 29th Training Systems Squadron, under the 53rd Wing, Eglin AFB, Fla. It manages the day-to-day activities of the 20,000 square foot F-15 Training System Support Center (TSSC). The F-15 TSSC is a combination of government employees and contractors responsible for the development, modification, and testing of assigned F-15 Training Devices with current modifications exceeding a value of \$15 million. The unit developed an exceptional Operating Instruction (OI) for the management and implementation of the unit safety program. The OI identifies the roles and responsibilities of the operating location chief and unit ground safety representative, and contains in-



structions for all unit safety inspections, mishap reporting procedures, and safety education and training. Air Combat Command's Safety Office disseminated the OI as an example for other units to follow. In addition, OLAD has developed and implemented Operational Risk Management practices for the unit's official and recreational activities, participating in both base and community intramural sports programs without a single injury. OLAD personnel are also active participants in the greater Phoenix area community safety programs. A prime example is Water Watchers, which educates the community about water safety issues, and develops curriculums for water safety educational programs for over 3,000 elementary grade students. OLAD has proactively sustained an outstanding safety program that has created a safe and healthy environment in which personnel can safely accomplish mission goals.

Weapons Safety Award of Distinction

As a recently appointed Senior Controller, SSgt. Keith Eckman took great personal interest and pride in ensuring that the static electric and lightning protection program for the 347th Maintenance Squadron's Munitions Storage Area was current and functional. He aggressively researched the scope and parameters of the program, as well as the type and frequency of inspections required. He then tediously performed a self-inspection on the previously established program and identified shortfalls and inconsistencies in documentation. He ensured there was an accurate data record on file for every visual and continuity inspection required for the five munitions maintenance and 13 munitions storage facilities. He coordinated with civil engineering to retrieve missing documentation and directed the establishment of new facility inspection

records when data could not be retrieved. Eckman then improved the visibility of the program file by separating the records for the 18 facilities by inspection type. This improvement made it possible to inspect and review program files with great ease and accuracy. He ensured, by updating the checklist, that visual inspections met the intent of all Air Force instructions and manuals. He also made sure that the program files matched electronic files within the Munitions Control 2,000 database program. SSgt. Eckman's outstanding efforts and initiative mitigated the risk of possible premature ignition of explosives by stray electricity or lightning to within safe acceptable limits for mission success.



SSgt. Keith A. Eckman, 347th Maintenance Squadron, 347th Rescue Wing, Moody AFB, Ga.

ACC is proud of our monthly safety honorees

Pilot Safety Award of Distinction

Capt. Scott Clyman, call sign Sludge 4, was part of an F-16 aircrew coordination training upgrade sortie for Sludge 1. After Sludge 1 and 2 had executed their formation takeoffs, Sludge 3 and 4 began their engine run-ups. Following the initial takeoff roll, Sludge 4 began to slide aft of Sludge 3 at approximately 90 to 100 knots and selected MIL power. As the jet accelerated, Sludge 4 began to notice an audible surge and very slight changes in jet acceleration. Clyman checked the engine instruments, noted nothing unusual, and assumed the surging was the environmental control system cycling. As the aircraft accelerated through approximately 130 to 140 knots, the audible surging continued and he noted significant engine surges. Clyman was now significantly aft of Sludge 3 and could not maintain formation. He re-checked the engine instruments and though there were no rpm abnormalities, he did notice nozzle fluctuations of up to 20 percent. Clyman immediately made the decision to abort the takeoff. At approximately 145

knots, Clyman executed critical action procedures, lowered the hook, applied wheel braking, called for the second cable, and stopped the jet uneventfully without engaging the cable. Maintenance found that the central air data computer was not functioning properly and was sending an erroneous mach signal to the Digital Electronic Control (DEC). Since the system had not detected failure, the DEC attempted to operate and compensate for bad data. As a result, the engine was accelerating and decelerating. Had the jet gotten airborne, it would have at least transferred to secondary engine control, and possibly had much more serious engine problems. Capt. Clyman's actions prevented further damage or loss of a valuable aircraft and possibly loss of life.



Capt. Scott A. Clyman, 421st Fighter Squadron, 388th Fighter Wing, Hill AFB, Utah

Ground Safety Award of Distinction

As the safety representative of the Utilities Section, SSgt. Jay Reformado took it upon himself to aggressively identify shortfalls in his section's safety program. During the past quarter, he single-handedly rebuilt his section's Hazard Communication (HAZCOM), Lock-out/Tag-out, and Confined Space programs. After reviewing these programs, he identified additional training and equipment requirements needed to ensure his personnel were protected from possible exposure to unprotected pipelines. He also required a more hands-on training schedule for personnel entering confined spaces. Reformado assessed the current lock-out/tag-out equipment for his section and found that, due to new pipe valves being installed, the current equipment was not suitable to protect his personnel. He immediately identified this to his supervisor and researched the proper equipment that was needed to rectify the shortfall. He fol-

lowed through on the procurement of this equipment and redesigned his HAZCOM, Lock-out/Tag-out, and Confined Space programs to support the new equipment. With assistance from our Liquid Fuels section, Reformado scheduled Utilities personnel for hands-on training using their Confined Space Simulator. This provided the trainees with a realistic working environment that did not put personnel at risk. Due to his attention to detail, dedication, and can do attitude, all personnel working in the Utilities section have been provided with the proper equipment, training, and understanding of possible hazards they may face. Sgt. Reformado is truly dedicated to maintaining the best safety program in the unit!



SSgt. Jay C. Reformado
355th Civil Engineer Squadron
355th Wing
Davis-Monthan AFB, Ariz.



Aircrew Safety Award of Distinction

On July 31, 2001, the E-3 crew returned from a training mission to conduct transition training at Tinker AFB, Okla. Weather at the time was visual meteorological conditions and the Tinker bird watch condition was low. The copilot was flying a planned touch-and-go from a circling approach. During the touch-and-go rollout, after power was pushed up for takeoff, the copilot called “birds.” The E-3 had already accelerated to rotation airspeed when it suddenly shuddered. Immediately, the right wing rocked upwards and the aircraft yawed 10 degrees to the left, heading towards the edge of the runway. The Instructor Pilot (IP) quickly scanned the engine instruments, specifically checking the engine pressure ratio and engine fan speed in rpm of the number one and two engines, but saw no indication of engine failure. With little time to react, the IP took the controls, applied appropriate aileron and rudder input, and aborted the takeoff using the boldface procedure. The crew slowed the plane to taxi speed and cleared the active runway. They shut down the number one and two engines and had the aircraft towed to parking. A runway sweep

by base operations personnel revealed six dead morning doves. The aircraft had been hit multiple times on the left leading edge flaps and wing, and there was evidence of bird ingestion in both engines number one and two. Due to the quick reactions by the flight crew, a \$370 million aircraft was brought under control to prevent departure from the runway and no crewmembers were injured.



From left to right: Capts. Steven F. Spiegel, David A. Hillner and Todd R. Shields, SSgt. Ryan E. Halton, 966th Airborne Air Control Squadron, 552nd Air Control Wing, Tinker AFB, Okla.

Crew Chief Safety Award of Distinction

Sgt. Jaime Beggs discovered failing blade pins while inspecting the main rotor head on an HH-60 Pave Hawk that had just returned from a mission. The crew had reported feeling vibrations. Beggs discovered cracks in three of the eight main rotor blade expandable pins that hold the rotor blades on the helicopters. He immediately grounded the aircraft. An immediate inspection of all the helicopters on Moody AFB was initiated and cracks were identified in a total of nine blade pins. The quick actions and elevation of this serious safety hazard resulted in three Immediate Action Time Compliance

Technical Orders, which removed the pins from service. The discovery affected the entire Department of Defense fleet of HH-60 helicopters including the Air Force’s combat search and rescue helicopters. One hundred and fifty helicopters were grounded and 790 defective pins were removed from service prior to any loss of life or catastrophic equipment failure.



SSgt. Jaime S. Beggs, 347th Rescue Wing, Moody AFB, Ga.

Fire

Stops with You

TREES

What's a holiday party or even the traditional Christmas morning scene itself without a beautifully decorated tree? If your household, as those of more than 33 million other American homes, includes a natural tree in its celebrations, take to heart the sales person's suggestion to **"keep the tree watered."** That's good advice and not just to create a fragrant indoor winter wonderland atmosphere. Christmas trees account for 400 fires annually, resulting in 10 deaths, 80 injuries and more than \$15 million in property damage. Typically, shorts in electrical lights or open flames from candles, lighters, or matches start tree fires.

Well-watered trees are not the problem that dry and neglected trees can be. The National Institute of Standards & Technology (NIST) fire safety engineers selected a





green Scotch pine, had it cut in their presence, had an additional 2 inches cut from the trunk's bottom, and placed the tree in a stand with at least a 7.6-liter water capacity, which they kept filled daily. When the researchers lit a single match and applied it to the tree, nothing happened. Next, they ignited an entire matchbook with an electric current. This also failed to catch the tree on fire. Finally, they applied an open flame to the tree using a propane torch. The branches ignited briefly, but self-extinguished when the researchers removed the torch. If that same Scotch pine had been neglected and dried out as a consequence, it would have taken only 3 seconds for it to be completely engulfed in flames. Within 40 seconds, "flash-over" would have occurred, which is when the entire room erupts into flames, oxygen becomes depleted, and deadly toxic smoke engulfs the scene. As NIST fire safety engineers say: **A WET TREE IS A SAFE TREE!** Here are some tips that

might help prevent a holiday fire disaster in your home:

- Select only Christmas trees that have green needles, which are hard to pull back from the branches and not easily broken, and trunks that are sticky to the touch.
- Care for your tree by not placing it close to a heat source, like a fireplace or heat vent; not keeping it up for more than 2 weeks; and keeping the tree stand filled with water at all times.
- Dispose of your tree promptly when it becomes dry by taking it to a recycling center or having it hauled away by a community pick-up service — never put tree branches or needles in a fireplace or wood-burning stove.

LIGHTS

Inspect holiday lights each year for frayed wires, bare spots, gaps in the insulation, broken or cracked sockets, and excessive kinking or wear before putting them up. Use only lighting listed by an approved testing laboratory like Underwriters Laboratories, Inc. or UL.

Do not link more than three light strands, unless the directions indicate it is safe. Connect strings of lights to an extension cord before plugging the cord into the outlet. Make sure to periodically check the wires — they should not be warm to the touch. **DO NOT LEAVE HOLIDAY LIGHTS ON UNATTENDED.**

DECORATIONS

USE ONLY NONFLAMMABLE DECORATIONS. All decorations should be nonflammable or flame-retardant and placed away from heat vents. Never put wrapping paper in a fireplace. It can throw off dangerous sparks and produce a chemical buildup in the home

that could cause an explosion. If you are using a metallic or artificial tree, make sure it is flame-retardant.

CANDLES

Avoid using lit candles. If you do use them, make sure they are in stable holders and place them where they cannot be easily knocked down. Never leave the house with candles burning. Never put lit candles on a tree. Do not go near a holiday tree with an open flame such as candles, lighters, or matches.

All of us at ACC Safety wish you and yours a happy and safe holiday season! ▶

For more information visit: www.usfa.fema.gov or for kids: www.usfa.fema.gov/kids





White-Out

By MSgt. James P. Raabe, Fort Meade, Md.

 Digitally created by SSgt. Neil Armstrong

Christmas of 1999 was a memorable one for a variety of reasons. First of all, it was my first Christmas since my divorce and I wasn't about to spend it without my 4-year-old daughter, Rebecca. Second, what I learned that year reinforced all the things I had been teaching as a wing safety guy.

In December 1999, I was stationed at Whiteman AFB, Mo., and Rebecca lived in Minot, N.D. I had been planning this trip to see her

at Christmas for nearly 5 months. It takes that kind of time to plan for a trip like this. For example, I had to decide if I would fly or drive. Since money was a compelling factor, I chose to drive. Once that decision was made, I had to calculate: How many hours or days it would take to travel there; where I would spend the night; what route I would take; how much money would I need; what the weather would be like; and what kind of clothing I would need. I also took into ac-

count that the answers to many of these questions would vary depending upon road construction, weather, fatigue, etc. What I didn't know at the time were the many variables (some frightening and some new) that my future held.

After packing extreme cold weather clothing and assembling a winter safety kit consisting of extra blankets, high energy foods, candles and matches, extra clothing, a small shovel, flashlight and extra batteries, tools, flares, and my



planned out alternate routes just in case. Except for a 20 percent chance of snow, I noted no other reason to delay the trip so I ate and got a good night's rest. The next morning I checked the weather again for updates. When I saw there were none, I set out for another leisurely day of driving. I was about 125 miles from Minot when, without any prior notice, the weather changed drastically.

Now, even with all my planning, "there I was" ... just 125 miles away from Minot on a two-lane highway, which was under construction, when suddenly the wind picked up and snow began to blow. I found myself smack dab in the middle of a raging blizzard! The roads, once slush covered from an early morning *wet snow*, turned to ice at least an inch thick. The 30 to 40 miles per hour wind drove perpendicular across my path making it impossible to stay on the road even if I could see it. I had never experienced a blizzard in open country

road. The shoulders of the road in this region are narrow, but thankfully made of gravel — or at least they were at the time. Steep gullies lined the shoulders; I didn't want to stray too far onto them. I knew the law said never use the shoulders while driving, but I assessed the situation, weighed the risks involved, and made my decision to continue. This enabled me to resume at a whopping controlled speed of 20 miles per hour until I was able to locate a place to pull off safely. I drove this way with flashers and lights on and kept looking in my rearview mirror — hoping and praying the big rigs could see me.

After 10 to 15 minutes of praying, I finally located a little town — I nearly missed it because of the limited visibility! I found a convenience store and had a hot cup of cocoa. As I regained composure in the store, I thought about what had just happened. What could I have done better? I thought I had

Christmas

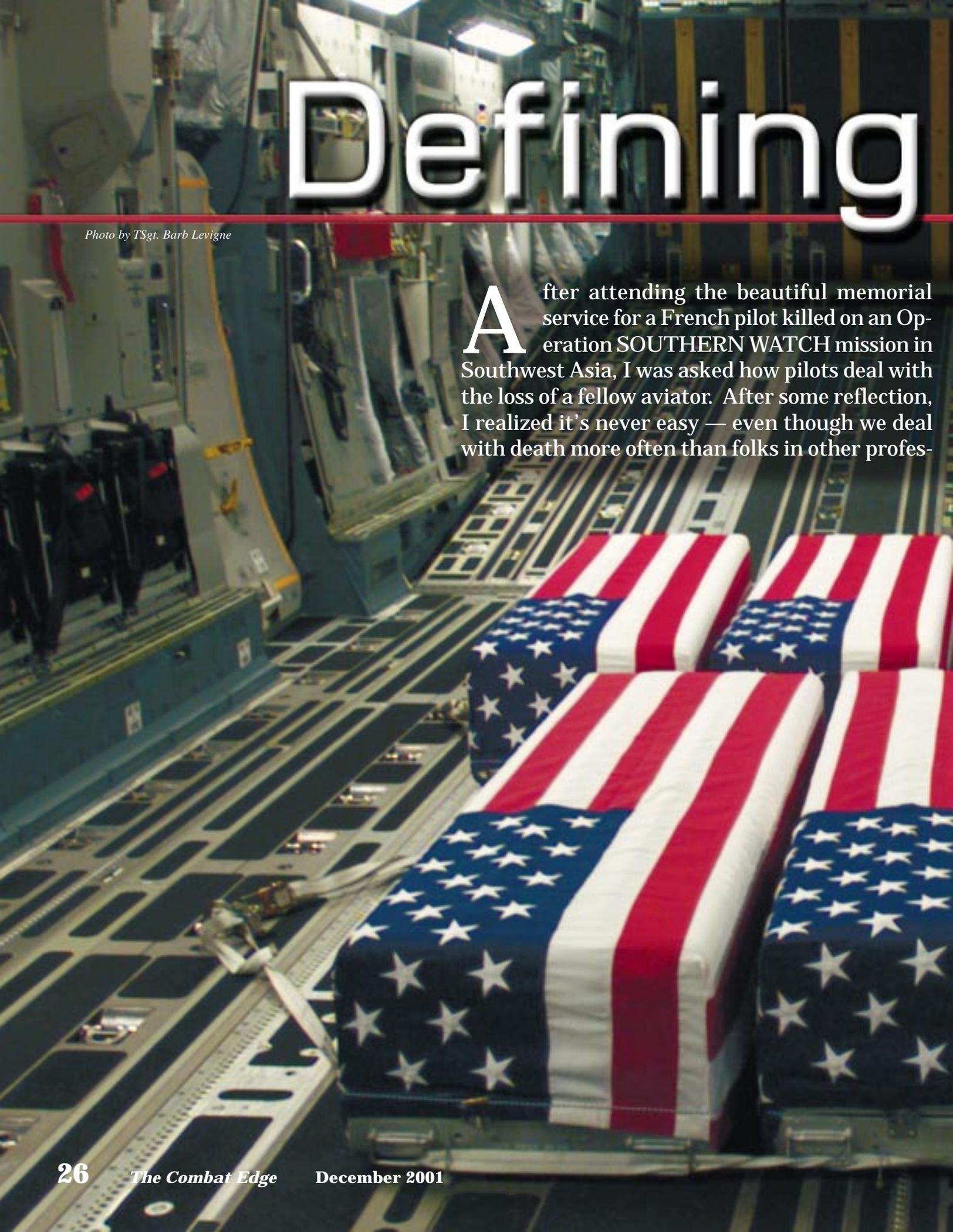
cell phone, I set out for Minot. It was 40 degrees Fahrenheit in Missouri when I left and the weather was favorable. The first leg of the trip was virtually uneventful. I spent the evening in Watertown, S.D., approximately 440 miles from Minot. It was a cool 20 degrees Fahrenheit, but the weather was clear. I got a hotel for the night and proceeded to plan for any changes in the second leg of my trip.

I watched the Weather Channel for the next day's weather and

before. I had always been in town or in familiar territory when they hit. I knew I should pull over and wait out the storm, but the 18-wheelers behind me had different ideas. As the mighty semis daringly passed me at or above the posted speed limit of 65 miles per hour, I could not help but wonder what could possibly make them jeopardize their lives or the lives of others. Maybe it was business as usual. Was it really possible that they could see over the driving snow and had good enough traction to stay on the road? The answer did not matter at that moment, I had to think quickly and find a safe way to exit the road.

The only safe way to quickly exit was to use the shoulders of the

been fully prepared. All my experience in the safety career field and in the Air Force did not prepare me for one uncontrollable variable ... the human factor or, in this case, the truckers. I could not pull over on the side of the road and wait for the storm to end because I feared a truck would clobber me; I felt forced to drive in some pretty treacherous conditions. I feel I made the correct decision to continue and would do it again if I had to. A half hour later, the storm subsided and I continued my journey. Several miles from the convenience store the roads were clear — as if there had been no storm at all. I continued my trek to Minot safely and spent a wonderful Christmas with Rebecca. ▶

A photograph of the interior of a military aircraft's cargo hold. The floor is a complex metal grating. In the foreground and middle ground, several seats are lined up, each covered with a folded American flag. The flags are draped over the seats, showing the stars and stripes. The background shows more of the aircraft's interior, including overhead storage bins and various equipment. The lighting is bright and even.

Defining

Photo by TSgt. Barb Levigne

After attending the beautiful memorial service for a French pilot killed on an Operation SOUTHERN WATCH mission in Southwest Asia, I was asked how pilots deal with the loss of a fellow aviator. After some reflection, I realized it's never easy — even though we deal with death more often than folks in other profes-

Moments

A photograph of a military aircraft's cargo hold. Several caskets are lined up, each draped with an American flag. The flags are folded over the caskets, showing the stars and stripes. The cargo hold is filled with equipment, including seats and storage bins, and the floor is covered with a grid pattern. The lighting is bright, and the overall atmosphere is solemn.

By Col. Kurt Dittmer, U.S. Embassy, Bahrain

sions. Some people who witness a tragedy for the first time may change their behavior, or the way they view life, for the rest of their days. The tragedy for these people has become a “defining moment.” A defining moment can occur anytime in our lives and doesn’t have to be related to flying — it is critical in our maturation process ...

and important for our survival.

When I was young and inexperienced, I seldom thought about the consequences of my actions. I'm sure I wasn't the only one who acted like this. For instance, young motorcyclists ride without a helmet because of the feeling of freedom and openness it gives them; their view isn't constrained by the edges of a helmet and they can better feel their environment to quickly react to danger. Many probably feel they are invincible and don't need a helmet because they are good enough to avoid an accident. However, one has to realize they have not yet experienced a "defining moment."

A highway patrolman, who has investigated motorcycle accidents and seen the aftermath of head injuries and notified the parents of a teenager's death, will think

defining moment for him — that first accident showed that no one is invincible and that there are serious consequences to our actions.

In the flying business, we must make life and death de-

the regimes in which we operate them. There is a fairly high probability that we will witness a fatality in our careers. How we react after seeing an accident is critical in our survival process.



Photo by SSgt. Jerry Morrison

... pushing the aircraft or ourselves

differently than an inexperienced youth before riding a motorcycle without a helmet. Probably the first accident the officer investigated was the

decisions often. Mistakes that result in accidents are catastrophic because of the tremendous speeds and the nature of the machines and

My defining moment came as a lieutenant when I watched a good friend ride an aircraft into the ground. He was violating regulations and

common sense, hit some power lines, and was killed instantly. The aftermath of the accident did not affect him — his life ended in moments. He doesn't live with the memories of seeing a fireball or the tears of his pregnant wife as we tried to console her. He doesn't live with my guilt that maybe I could have prevented a friend's death. Perhaps I couldn't have prevented his death, only delayed it until another sortie, because I believe he had yet to experience a defining moment for himself.

Not everyone in the squadron reacted to the mishap in the same way I did. Some figured since they didn't violate regulations, they weren't in danger. Others tempered their actions and straightened up to fly right. Initially, we were all in shock. But operations must go on, and the leadership ensured that we jumped in the jets as soon after the accident as possible. As with all mishaps, pilots must overcome initial apprehensions by re-establishing competence and control over the machines they

ter seeing too many accidents. There are few pilots flying jets that believe an accident could ever take their lives. Most believe it could only happen to the other person — never them. It has to be that way. Survivors continually analyze mishaps to figure out what went wrong, who made mistakes and what caused the accident. That way, if we are ever put in the same situation, we will have already "experienced" it (if only in our decision-making process) and defined how we will survive



That incident changed my behavior. I view flying differently than I did before the accident. I understand that the regulations are there for a reason — most of them have been written in blood. The consequences of violating regulations and/or pushing the aircraft or ourselves outside of the "envelope" can be fatal.

fly. But if we are smart, everyone close to the mishap learns from the experience and changes their behavior. In the safety business, we see it as education towards prevention of a similar accident. Sometimes technical orders or regulations must be re-written. Sometimes leadership must depart the realm of

that same situation. We add to our experience through other pilots' misfortunes.

Was our French comrade's life lost in vain? What did he do right? What did he do wrong? What can we do to enhance our probability of being a survivor if we are faced with a similar event or circumstance? Answers to questions

outside of the "envelope" can be fatal.

My chances for survival went up after witnessing death because it changed my behavior. I matured and became a survivor.

safety privilege and correct situations through disciplinary actions.

One pitfall that pilots must avoid is becoming callous af-

like these are important. We must always be open to redefining the actions we take in life ... as we wait for our "defining moment." ►



Flight Notes

As we enter the holiday season with with many of you deployed around the world fighting combat missions, it's critical that you integrate safety practices into all of your efforts. With the operations tempo and separation from our families, it's easy to have a mental slip that can cause a mishap. Cutting corners is not a war-time practice, it's a practice that leads to the loss of assets—and an asset can be you. Each and every one of you are critical to this nation's ability to fight and win. Take all of the proper steps and think safety in everything you do.

Weapons Notes

Emphasis should now be placed on implementing ORM into all operations involving explosives. This provides operators a "time to think" when facing questionable situations. Last FY was record breaking for explosive mishaps. Let's attempt to keep the pace.

Flight

As of November 1, 2001

8 AF	
9 AF	
12 AF	
AWFC	
ANG	
AFRC	
Aircrew Fatalities	

Ground

As of November 1, 2001

FY02	Class A Fatality	Class A Injury or Equip.	Class B	Class C
8 AF	0	0	0	
9 AF	0	0	0	
12 AF		0	0	
DRU		0	0	0

Weapons

As of November 1, 2001

	Class A	Class B	Class C	Fatalities
8 AF	0	0	0	0
9 AF	0	0	0	0
12 AF	0	0	0	0
AWFC	0		0	0
ACC Totals	0		0	0

Class A - Fatality; Permanent Total Disability; Property Damage \$1,000,000 or more
 Class B - Permanent Partial Disability; Property Damage between \$200,000 and \$1,000,000
 Class C - Lost Workday; Property Damage between \$20,000 and \$200,000



Ground Notes

FY 01 Recap

Class A

On Duty - 2
 Off Duty - 14
 Total - 16

Class B

On Duty - 0
 Off Duty - 1
 Total - 1

Class C

On Duty - 157
 Off Duty - 420
 Total - 577

Total All Mishaps

FY01 - 594
 FY00 - 595
 FY99 - 645

So far this fiscal year there has been an increase of on-duty mishaps, one of which was the first non-combat death during Operation ENDURING FREEDOM. As the operation progresses we need to keep the principles of ORM in mind.

Don't
 be
 a
 Statistic!

Lock on Safety



A1C. Johnnie Chellberg, a fuel systems specialist with the 20th Component Repair Squadron at Shaw Air Force Base, S.C., tests the aerial refueling receptacle of an F-16CJ. While SSGts. Richard Heath and Excell Kendrick, weapons loaders with the 20th Operations Group, attach the wings to an AIM-120C air-to-air missile on another Fighting Falcon. When preparing for combat, in an up tempo operational environment, it's the responsibility of all airmen to ensure that wing activities are conducted safely.

