

The Combat EDGE

October 2003



Fire Prevention Month

GENERAL HAL M. HORNBERG, COMMANDER
COLONEL KEVIN W. SMITH, CHIEF OF SAFETY

THE COMBAT EDGE

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Photo by SSgt Shane Ciromo



Photo by TSgt Lisa Zunzanyika



Illustration by SSgt Carrie Atwood



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MAJ REBECCA COLAW
EXECUTIVE EDITOR

MAJ WENDY HAMILTON
EDITOR

Ms. BARBARA TAYLOR
ASSOCIATE EDITOR

SSGT CARRIE ATWOOD
PUBLICATIONS DESIGNER

TSGT BEN BLOKER
TSGT LISA ZUNZANYIKA
ASSOCIATE PHOTO EDITORS
1ST COMMUNICATIONS SQUADRON

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CONTRIBUTIONS: Please send articles with name, rank, DSN phone number, e-mail and complete mailing address and comments to:

Executive Editor, *The Combat Edge*
HQ ACC/SEM
175 Sweeney Blvd
Langley AFB VA 23665-2700

Telephone: (757) 764-8868
DSN 574-8868
FAX: (757) 764-8975
e-mail:rebecca.colaw@langley.af.mil

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Front Cover: MSgt Terry L. Blevins



STARTING A NEW FISCAL YEAR

As we start a new Fiscal Year, we all hope this year will be a safer and more productive year. Unfortunately, the last 2 years we lost our focus right from the start in October. During the last two Octobers we had seven flight Class A mishaps and killed eight Airmen in ground accidents.

We have just finished a command-wide Safety Day with the goal of starting FY04 off safely. But success depends on each and every member of ACC managing risk. Operational Risk Management (ORM) is a 24/7 responsibility and sets the proper decision process where we ask if the "risks are worth the rewards," "who has the authority to accept the risks," and "have we mitigated every risk to maximum extent possible" before we execute the task. Just asking these ORM questions would have saved ACC lives last year.

Sound ORM habits lead directly to individual Personal Risk Management (PRM) habits. Proper application of PRM saves lives, prevents injuries, and helps us avoid making bad decisions. Taking these sound practices home, sharing them with our families, and insisting that our friends apply them too, just makes life safer for all.

We all would like FY04 to be the safest year on record for ACC. Let's keep our operational and safety focus ... don't let safe operations slip away from us this October.

Colonel Kevin W. Smith
ACC Chief of Safety



Photo by SSGT Christopher Matthews



On the first day of pilot training my instructor told me that the handling of every airborne emergency could be boiled down to four basic steps, maintain aircraft control, analyze the situation, take the appropriate action, and land as soon as possible. He was right ...

“Toast 8, you are trailing smoke and venting gas.” My flight lead Toast 7 blared into my helmet just seconds after an illumination of my Master Caution light which disturbed the relative peace of an 8-ship of Eagles marshalling east of Student Gap. A scan of my engine instruments revealed zero oil pressure on the #2 engine.

Almost immediately, the Cockpit Voice Warning System alerted me to further problems when a disarmingly uninterested voice declared, “Engine Fire Right, Engine Fire Right.” Simultaneously with the cau-

tion, my jet abruptly pitched hard left. Although quickly corrected with a moderate input of right stick, this flight control anomaly in conjunction with a Fire Warning Light, and an ever-growing number of other caution lights now ensured that the jet had my undivided attention.

Glancing at the fuel gauge, I noted 16,000 pounds of fuel — too heavy for a safe landing, so I began dumping gas and turned towards home.

“Toast 8, you are trailing smoke and venting gas.” I quickly replied, “No, I’m on fire and I’m

dumping gas.” I requested and received the lead on the left, and Toast 7 moved into chase position, as I rolled out, and pointed toward Nellis Air Force Base, 90 miles to the south. The words of my first instructor went through my thoughts again.

Maintain Aircraft Control. This idea repeated itself in the back of my head as I attempted unsuccessfully to trim out the right stick required to keep my jet flying straight and level. When I cautiously removed my hand from the control stick, the plane again began a roll to the left. Forced either to fly with my left knee or keep my right hand

Deacon... you're really on

Fire!

By Maj Roy Qualls, Louisiana Air National Guard

glued to the stick, I began to realize that maintaining aircraft control was going to require more conscious thought than I'd like to expend on such a simple task. Meanwhile, a myriad of other problems were demanding my consideration, so I began to address those concerns while maintaining aircraft heading with my knee.

Analyze the Situation and Take the Appropriate Action. These concepts are sometimes easier said than done when flying with limbs usually reserved for stumbling home from the Officer's Club. But since I had no other ideas, I initiated that activity. Scanning the cockpit, I discovered that retarding the throttle to idle had extinguished neither the Fire Light nor the fire itself, so I mentally reviewed the next steps of the checklist, "*Push, Throttle, Bottle*" before pushing the Fire Warning Light, pulling the throttle to OFF, and actuating the fire extinguisher bottle.

By this time Toast 7 had rejoined into a close chase position and reported, "*You've got a hole the size of a cantaloupe in your right afterburner, and I can see a small fire burning inside.*" Looking outside at the mountainous terrain, I fumbled for the checklist, hoping that Step 5 of

the Engine Fire Inflight checklist had miraculously changed since the last time I checked. It had not — Step 5. If fire persists — Eject (Refer to page H-11 for ejection checklist).

Not wanting to refer to page H-11 yet, I elected to continue towards Nellis. The Teelight Panel was lit like the proverbial Christmas tree, so I began to perform triage on the jet. Slowly I attempted to put the pieces of this puzzle into a coherent whole. I reset the Control Augmentation System (CAS), and switched the right ramp to Emergency. Four caution lights dutifully disappeared from the panel — just twenty more to go. Then things got **REALLY** interesting.

The AMAD Fire Light illuminated, indicating a fire in one of the jet's two Airframe Mounted Accessory Drives — a fancy term for a device that powers the flight controls. Since one AMAD was already inoperative as a result of shutting down the right engine, I'd have no choice but to refer to page H-11, if the AMAD on fire was the left one. The plane can't fly without at least one operating AMAD.

Out of the corner of my eye, I saw Toast 7 move further away from my aircraft as I heard this radio call. "*Deacon, you are really on fire now.*" And I was — fire had engulfed the

aft end of my jet and flames were trailing behind about 20 feet. Having already expended my only fire bottle on the first fire, and having watched too many World War II movies, I began a steep dive in an attempt to blow the fire out.

To my utter amazement, the AMAD Fire Light extinguished, and Toast 7 moved closer advising me that the fire was under control, but was still "*cooking in the afterburner section.*" (The safety investigation revealed that the fire receded due to running out of oil to burn, and not due to my poor impression of "The Flying Leathernecks.")

Relieved, I leveled off and once again began dealing with those knotty little details like useless gauges — both my airspeed and my fuel gauge read zero. Evidently, the fire had fried several wire bundles including the ones responsible for those gauges. Due to the malfunction with the fuel gauge, I could no longer dump gas, which was problematic, since I figured that I still had about 13,000 pounds of fuel remaining — at least 5,000 pounds more than I'd like to have upon landing. Having little choice but to drop my external tanks, I pressed the Emergency Jettison button and absolutely

nothing happened. Add the jettison circuits to the list of wires destroyed by the fire.

Once again, those early instructor words came back to me

Land as Soon as Possible.

This action was right up there with my top priorities. I must admit, I had little desire to see what else was going to go wrong with this jet. Before landing I knew a controllability check was in order, since I obviously had some sort of flight control problem that required constant right stick.

Flying off the standby air-speed indicator, I slowed to 250

runway at 200 knots. At that speed, a flare was out of the question. I essentially flew the aircraft onto the ground in a three-point attitude, in what Toast 7 later described as *"the ugliest landing I've ever seen."* Be that as it may, I was on the ground and glad to be there.

Once I passed the approach end cable, I lowered the hook and then focused on staying on the runway centerline and carefully applied the brakes. Just as I was beginning to relax, my chase airplane said, *"Deacon, drop your hook."* I double-checked the position of the switch and replied that **"I HAD"**

lowered the hook. *"Well, it's not down,"* was the unwelcome answer. *"This is not your day,"* flashed in my mind as I applied maximum braking and for the second time in 5 minutes prepared for ejection.

Much to my relief, the jet slowed to a stop 300 feet from the end of the runway. As I was in the process of shutting down the engines and performing an emergency ground egress, the radio blared one last time, *"Toast 7 request vectors back to the fight"* — I had to laugh.

While most sorties have something to offer in the way of fod-

der for the fabled clue bag, this particular sortie was fraught with lessons learned.

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A good chase ship is indispensable, especially during a complicated emergency such as this ...

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A Dangerous Vase

By MSgt Jeffrey J. Chandler, Offutt AFB, Neb.

Ever used a magnifying glass to start a fire? Well, that concept hit a little too close to MSgt Mike Stenger's home last year. The days were bright and sunny in America's heartland when his wife noticed a burn spot on the solid oak table they have in their kitchen. At first, they thought a hot pan or candle had caused the burn mark, but neither of them could remember setting something down in that location. They had recently placed a glass vase — you know, the kind with water, rocks, and plant roots that just kind of float around — on the table and started to suspect that the vase might be focusing sunrays onto the table and burning it — just like a magnifying glass.

Although MSgt Stenger thought this was unlikely, he removed the vase from the table and conducted a test during his lunch break the next day. He placed the vase on a scrap piece of wood in front of the glass patio door and sure enough, in just a few minutes, the wood started to blacken and even smoke slightly! Needless to say, the Stenger household no longer has the vase in the direct sunlight.

The vase had been on that table for over a week. Both worked during the day so they were never at home to smell or see the smoke that resulted from the sun shining through the sliding glass doors and the vase

onto the table. I have absolutely no idea how intense light has to be to burn wood, but I can remember that it did not take long at all to burn things using a cheap magnifying glass. Can you imagine what might have happened if the vase had been sitting on a lace tablecloth or doily? What if a newspaper or

paper napkins had been close by? Thankfully, the Stenger family was able to avert a tragedy, but their story really makes one stop and take another look at what is around us.

We should all do this both at home and in our work areas. We should also do more to consider our surroundings and what impact there might be when we introduce something new. A good rule of thumb is to always let your supervisors know when you bring things from home into your office. Items like portable

electric heaters, fans, and individual coffee pots may need to meet certain requirements before they can be used. Additionally, many maintenance and industrial areas require such things to be rated or certified. Prior approval is always a must.

The Stenger's experience provides all of us with a valuable lesson learned about nature's fire-starting power. What seemed ordinary and harmless had the potential to cause great destruction. Each of us can do our part by bringing similar things to the attention of our supervisors, spouses, friends, or manufacturers of a particular product. Sharing what you have learned is one of the important keys to mishap prevention. ▶

The wood started to blacken and smoke!



Photo by TSgt Ben Bloker.

HOT?

I didn't think it was that hot!

By Maj Scott Hannan, Whiteman AFB, Mo.

It was a typical August late afternoon at NAS Whiting Field in the Florida Panhandle. The puddles from the recent thunderstorm probably would evaporate in about 3 months and the temperature was way beyond Africa hot as the sun had reappeared immediately after the storm blew through. I was briefing with one of my on-wings for a 1600 takeoff. The mission would be a familiarization ride in the mighty T-34C TurboMentor and would be the stud's last ride with me prior to his pre-solo checkride. I was looking forward to this ride because he was pretty sharp and had been performing consistently above average throughout the program. I also really wanted to fly because if we didn't go that day the student would be in the warm-up window and might require an extra flight before moving on. A recent Hurr-evac and the subsequent gaggle home had pushed everyone's schedule to the

right. Plus, in the race to meet our Annual Training Requirement (ATR), the Squadron had designated my on-wing as a potential counter towards the final tally. In other words, we needed to get him finished by the end of the fiscal year. Getting the X would help everyone concerned.

After briefing up, we stepped outside the shack into the heat. I sent the stud on out to the plane while I went to sign it out. He had all his equipment on and fastened as he headed out to pre-flight. I'd already worked up a good sweat just walking the hundred yards to maintenance. I signed for the airplane and went out to the parking spot. The stud was just finishing up the walk-around, so I quickly double-checked everything and then we manned up. Unfortunately, you start the mighty TurboWeenie with the canopies closed. It was hellishly hot! We started the engine and continued

with the checks (most importantly getting the AC on). The prop was only turning a minute or two when the radio died. We troubleshot with maintenance, but the thunderstorm had dumped over 2 inches of rain on Whiting and the Weenie's canopy really leaked! Water had dripped onto and into the radio and shorted it out. That aircraft was done for the period. Maintenance told me the tail number and parking for the spare, so I told the stud to carry our stuff over and start pre-flying that aircraft while I got a ride to the shack to sign out the new plane.

I went in, wrote up the old plane, and signed for the new one. Then I walked back out to the parking spot. As I approached, I noticed that my student seemed fascinated by the engine cowling. He was standing motionless, holding onto the handgrips that open the cowling, just staring at the plane. He had



Photo by Robert Lawson, USAF/AFM



Photo by JOC Kirby Harrison



Photo by MSgt Dave Nolan

I realized his eyes were glassy, his face was flushed, and he seemed distracted. Then I noticed he wasn't sweating ...

opened the latch, but otherwise was doing nothing else. I asked what was wrong and he said it wouldn't open. I tried it, and it opened easily without any jiggling or sticking. I told him to try again. Now he was just staring at me without responding. I almost started to question his shoe color preference when I realized his eyes were glassy, his face was flushed, and he seemed distracted. Then I noticed he wasn't sweating at all and I knew he/we had a real problem. I asked him how he felt and he said he felt a little woozy. Because I paid attention to the Flight Surgeon's portion of the Fly Safe meeting (sort of), I knew he had some kind of heat stress.

I had him sit under the wing while I flagged down one of the

maintainers driving around the flightline in a golf cart. I also told him to drink whatever water he had on him and I gave him my bottle as well. We got a ride over to the maintenance shack and went inside into the air conditioning. I made him fill his water bottle and drink it all twice. Plus I had him stand in front of the vent. After about 15 minutes, he was demonstrably recovering. He looked normal, was alert, and seemed no worse for the wear.

This is where my advanced degree in doctoring really helped out. I figured since he looked fine, he must be fine. He certainly didn't object when I asked if he felt ready to go fly (imagine that). So off we went. As you might expect, he did terrible! I ended up calling it a warm-up flight anyway.

Then I went to explain to my Ops Officer why I took a stud flying whom just 15 minutes before had me thinking about calling an ambulance! As soon as I realized he was suffering from heat stress, I obviously should have cancelled the sortie and sent him to the flight clinic. I'd let my desire to advance my on-wing's training and help the squadron meet ATR get the better of my judgment.

Allowing the student a break and directing him to drink some water between consecutive pre-flights could've prevented this incident. Stay hydrated, keep an eye out for heat stress symptoms in your buddies, and don't let your desire to complete the mission endanger yourself or your crewmates. ▶

Editor's Note: Maj Hannan flew with VT-3 at NAS Whiting Field from '94-'97. Courtesy Naval Safety Center.

what happens when you fail to

Break ^{the} Mishap Chain

By MSgt William S. Taisler, Mountain Home AFB, Idaho



Explosion Site

The S.S. Grandcamp explosion as seen from the air triggered America's worst industrial accident.

While docked, the Texas City Terminal (TCT) railway loaded 2,300 tons of ammonium nitrate into the ship's other holds.

A chain reaction, that would have never started if Operational Risk Management (ORM) had been applied, occurred when a careless worker discarded a cigarette into one of the holds, catching the ship on fire.

All of us who work with explosives should know the risk involved with giving the wrong information to individuals without proper knowledge of the subject. Split-second decision making without thinking about the consequences is a recipe for disaster. As they always say, learn from the past and a good example is the Texas City harbor explosion.

In the spring of 1947, the S.S. Grandcamp, a 437-foot French cargo ship was loaded in one hold with 16 cases of small arms ammunition, 59,000 bales of binder twine, 380 bales of cotton, 9,334 bags of shelled peanuts, miscellaneous farm machinery, and some oil field refrigeration units.

The first link occurred when the crewmember, who dropped the cigarette, ignored the "no smoking sign."

The second link occurred when other crewmembers wanted to use water to put out the fire, but the ship's captain didn't want to ruin his cargo.

The third link occurred when, to suffocate the flames, the captain hastily ordered the men to close the hatch, cover the cargo with a wet heavy tarp, and activate the ship's steam smothering system.

The fourth link occurred when the captain ordered his crew to abandon ship.

All of these links created a chain that led to disaster. The captain did not realize that the steam he ordered activated, when combined with decomposing fertilizer, created a combustible gas. As a result, when the crew left the S.S. Grandcamp, it became a floating bomb.

The chain continued to grow when the terminal head called an engineer at a nearby chemical plant and asked about the dangers of burning ammonium nitrate. The engineer told the terminal head not to worry because “ammonium nitrate won’t explode without a detonator.” The terminal head made no further inquiries. The ship did indeed explode lifting the 7,176-ton ship 20 feet into the air. The explosion also killed most of the people in and around the ship — including all the firefighters on the scene.

The chain grew further when no one considered or even discussed moving other ships in the dock area to prevent further damage. Two other ships, the High Flyer and the Wilson B. Keene, were moored approximately 100 yards away. The High Flyer also contained ammonium nitrate. The explosion of the S.S. Grandcamp created a huge wave that crashed into the High Flyer and the Wilson B. Keene. These two ships crashed into each other starting another fire. The High Flyer also exploded. Five hundred seventy-six people were killed in 16 hours.

What’s disturbing about this disaster is that most of the critical decisions made in this crisis were made by the so-called experts in their fields. Experts that did not check all of the facts and made false assumptions. Others were made on the spur of the moment by individuals who knew little or nothing about the situation.

The captain was the first who could have possibly avoided this disaster. He could have considered the lives of his crew over his cargo. Had he had ORM in his day, he could have saved lives and possibly his cargo. In the end, he lost both.

You might be saying to yourself, “what does this story about ships have to do with me — a munitions troop?” Well a lot. You can be the one to break the chain of events that can lead to a disaster by using proper ORM. If you need to take charge and you are not sure of what to do, seek help and advice. Apply the ORM process and think before you act, the life you save may be your own. ▶



The April 16, 1947 Texas City Disaster

*Top to bottom:
Cars blown by the explosion piled
up on each other. The destroyed
parking lot at Monsanto chemical
company. The blast as seen from
across the bay in Galveston.*

Personal Risk M

Can you hear me now?

*In Kansas, a man
was struck and killed
by a train while
using his cell phone
to call for help
after his vehicle
broke down.*



Management

Don't be a Darwin Award winner!

By Lt Col Kirby Shineman, Malmstrom AFB, Mont.

Naturalist Charles Darwin proposed a theory that only the fittest species survive and others who are unable to adapt die out.

Safety officials must often feel that mankind is traveling the road to extinction. Rules are created to protect people from themselves, though many continue to believe they are the exception to those rules.

The Darwin Awards, an international honor to "those who improve our gene pool by removing themselves from it," is one indication that people haven't caught on to the idea of Operational Risk Management (ORM) yet. ORM, a safety official's mantra, is simply considering the consequences of one's actions to avoid suffering the slings and arrows of outrageous misfortunes.

The following Darwin Award winners didn't practice this simple concept. They were otherwise normal people who boldly put their brains on hold for a few moments and, as a result, won the uncoveted Darwin.

Life and limbs

A British tree trimmer sought to save time by burning old tree limbs at the base of the tree he was trimming. He built a fire and added limbs to the blaze from above — where he sat in the tree. If he had taken a few seconds to evaluate this scenario, he

probably would have used common sense and broken this task down into two distinct, safe processes: cutting the limbs and burning them away from his work area. He didn't.

Can you hear me now?

In Kansas, a man was struck and killed by a train while using his cell phone to call for help after his vehicle broke down. The train engineer spotted him standing on the tracks holding a cell phone to one ear and cupping his hand over the other to keep from being distracted by the inconsiderate noise of a train horn. With time-honored cell phone etiquette, the man remained focused on his call and became locomotive fodder.

Man's best friend

Another award winner in the Ukraine was walking his dog when a police cadet pointed out that dogs in that area must be walked with a muzzle and a leash. The pair began to argue and the man threw a grenade at the cadet's feet. The dog saved the day for the cadet when he fetched the explosive prize and dutifully returned it to his master for the last time.

Clearly, some of these folks are not the sharpest pen-

cils in the drawer, but many of us become candidates for Darwins in our everyday lives.

See someone walking around the base a lot? It's not a new fitness initiative. Despite hearing it weekly, there are some folks who still insist on driving home after drinking at a party. Now they can't drive on base.

Do you ever let your cell phone distract you? Do you drive with only one hand on the wheel while concentrating on that once-in-a-lifetime call home to say you'll be 10 minutes late? Do you believe it's the other drivers' responsibility to watch out for you?

Motorcycles can be a lot of fun when driven safely, but do you prefer to ride without a helmet to feel the wind in your hair? Helmets are required by Department of Defense directives to protect what's left of your brains.

Do you intentionally cut someone off in traffic, or pull out in front of someone in a fit of anger? Do you believe they're rational people who will accept your sound judgment of their driving skills?

Protect yourself by thinking ahead. ORM is a tool that can help you look at the consequences of your actions. You alone have the power to keep yourself from being the recipient of a Darwin Award. ►

Rules are created to protect people from themselves, though many continue to believe they are the exception to those rules.



Illustration by SSgt Carrie Atwood

I was on top of the world! I had completed Euro-NATO Joint Jet Pilot Training, and was at my A-10 Flying Training Upgrade (FTU). On a day off, wanting to use my private pilot's license, I got checked out at the local airport and re-hacked my currency flying single-engine-propeller planes. On this day, the sun was shining and the weather was perfect — even by Southern Arizona standards.

I rented a Cessna 150 and flew from Tucson to Phoenix to complete some licensing paperwork with the FAA. After completing the paperwork, I headed

back home. On the flight, I thought about how much I loved flying. I was about 4 months into my 6-month A-10 FTU, so I was feeling good and thought that I knew it all! I decided that a little low-level flying would be fun, so I pulled the throttle of the Cessna and descended down from 3,000 feet Above Ground Level (AGL) to 500 feet AGL.

Then it happened. The engine quit.

I established my glide, picked a field for my landing area, and aimed straight for it. As I descended, I tried to figure out what had just happened. I ran through the appropriate engine failure/re-

start checklist — Fuel, Mixture, Throttle, Carb Heat, Master, Primer, Key. None of it worked; the engine was still out. In the back of my mind, I remembered my civilian instructor years earlier saying, *"If it doesn't work the first time — try it again — what do you have to lose?"* So I tried the sequence again, and the engine fired up!

I leveled off, and found an old, abandoned airstrip about 2 miles off my nose. Luckily, I was in a perfect base position — just a little bit low. The engine ran for only about 10 seconds before it quit again. That was just enough time to guarantee that I

My Engine's OUT!

By Capt Greg Tolmoff, Davis-Monthan AFB, Ariz.

I decided that a little low-level flying would be fun, so I pulled the throttle of the Cessna and descended down from 3,000 feet Above Ground Level (AGL) to 500 feet AGL. Then it happened. The engine quit.

would make my intended landing point. I glided the aircraft to a picture perfect landing on a less than perfect runway.

Safely down, I finally realized the enormity of what had just happened. My legs shook and I felt nauseous. I had done everything correctly, I had landed safely and I saved my own life. There was nobody else in the cockpit with me who could have helped me with my problem. I was alone. But was I?

I had aviated, I had navigated, I had communicated, and I had landed as soon as possible. Well, I actually didn't communicate, because time and condi-

tions did not permit it. However, the concept is one that saved my life.

I have reflected on that day often. I now understand why all of the early morning stand-ups stressed the basics — Aviate, Navigate, and Communicate; Maintain Aircraft Control; Analyze the Situation; and Land as Soon as Conditions Permit. Throughout my career, the Air Force was trying to help me develop habit patterns that I could fall back on when routine flights went south. And on that day — even though I was not in an Air Force aircraft flying an Air Force mission, those habit patterns

saved my life. Now that I am teaching the young Hawg Drivers, I continually emphasize the basics. I try to instill in them the development of good habit patterns. You never know when your day is going to go south and your life or the lives of others are placed at risk. Take it from me — you want solid habit patterns on your side. ▶

Editor's Note: A large piece of debris was found in the fuel filter. At certain angles of attack, it would close off the fuel flow to the engine, causing it to stall. When Capt Tolmoff pulled the throttle and started the descent, he hit the "critical" angle of attack causing engine failure.

Langley AFB, Va.



Established:

1st Fighter Wing, on July 28, 1947

Organized:

August 15, 1947

Redesignated:

- 1st Fighter-Interceptor Wing, on April 16, 1950
- 1st Fighter Wing (Air Defense), on September 14, 1956
- 1st Tactical Fighter Wing, on October 1, 1970
- 1st Fighter Wing, on October 1, 1991



1st Fighte

General Characteristics:

Primary Function: Tactical Fighter **Contractor:** McDonnell Douglas
Thrust: (C/D models) 23,450 pounds each engine **Length:** 63 feet
Ceiling: 65,000 feet **Maximum Takeoff Weight:** (C/D models) 45,000 pounds
external fuel tanks **Crew:** F-15A/C: one. F-15B/D/E: two **Armament:**
AIM-9L/M Sidewinder and four AIM-7F/M Sparrow air-to-air missiles
dollars);C/D models - \$29.9 million (fiscal 98 constant dollars) □



r Wing

Glenn L. Martin Company. **Power Plant:** Two Pratt & Whitney F-100-PW-220 or 229 turbofan engines with afterburners
Weight: 18,000 pounds **Height:** 18 feet, 5 inches **Wingspan:** 42 feet, 8 inches **Speed:** 1,875 mph
Range: 3,450 miles (3,000 nautical miles) ferry range with conformal fuel tanks and three
Armament: One internally mounted M-61A1 20-mm, six-barrel cannon with 940 rounds of ammunition; four
missiles, or eight AIM-120 AMRAAMs, carried externally **Unit Cost:** A/B models - \$27.9 million (fiscal 98 constant
price) **Date Deployed:** July 1972 **Inventory:** Active force, 396; Reserve, 0; ANG, 126

The Combat Edge



Aircrew Safety Award of Distinction

Mishap Aircraft (MA) was number two in a two-ship tasked to respond to a Troops-in-Contact (TIC) situation. At rotation, the Mishap Pilot (MP) noticed a single self-protection flare bounce down the runway in the rear view mirror. The flight climbed through the weather and leveled at Flight Level 270 ATC, contacted the flight on UHF Guard and advised there were pieces of tire on the runway where the flare had dropped. The MP visually inspected the tires from the cockpit and discovered the right tire had significant tread separation but appeared to be holding air. The aircraft handled normally and because of the nature of the tasking, the Flight Lead (FL) and MP decided to continue towards the TIC until the Alert A-10s could be scrambled. Contact was made with the Supervisor of Flying (SOF) and considerations were listed with respect to landing at this airfield. Winds were gusting to 25 knots and a crosswind existed. It was determined to land with a left crosswind to allow for a more controlled touchdown of the damaged right tire. After additional coordination

with the SOF, it was decided to jettison all ordnance. Due to the erratic instruments, a formation TACAN penetration was performed to descend below the weather. It was still light above the clouds but very dark below and the flight donned NVGs after the descent. The conditions below the weather were disorienting due to reduced visibilities from blowing dust and a low level of illumination. Ceilings were ragged at 5,000 feet AGL. During the holding time the MP made a low approach to evaluate the visibility and illumination conditions for the landing. The MP concluded the illumination and visibility during the low approach would facilitate an NVG landing. The landing was uneventful as the tire did not fail. Directional control was maintained and the aircraft was taxied clear of the runway. By rapidly assessing the situation and taking action, and by skillful handling of the aircraft by the MP with the assistance of the SOF and FL, Lt Col Smith minimized damage to the aircraft and prevented a potentially catastrophic situation.

Lt Col William E. Smith, Jr., Lt Col Daniel B. Marino, Maj Edward S. Jones, Maj Kevin J. Campbell, 104th EFS, 455th Air Expeditionary Wing



Pilot Safety Award of Distinction

Maj Brotherton was leading an F-16 flight, call sign Viper 01, on a continuation training Basic Fighter Maneuver (BFM) mission. The weather was scattered low clouds, light and variable winds, with thunderstorms in the area. The Bird Avoidance Model (BAM) was moderate, but the actual bird condition at Ellington that morning was low. Brief, start, and taxi were all normal. Due to a scattered low ceiling, Maj Brotherton elected to change the planned take-off from a formation take-off to a 20-second radar trail. After raising the gear and starting his climb-out, Maj Brotherton saw a bird fly under the nose of the aircraft. Soon thereafter, he noticed an unusual buzz. A quick glance at the engine instruments didn't indicate any problems, all were within normal limits. As such, he continued his climb in mil power to 2,000 feet and continued evaluating where the buzz was coming from. Assessing the situation,

he decided to immediately return to base. He coordinated with approach and climbed up to SFO pattern at 7,000 feet. Once a 1 to 1 was established with the field, he pulled his power back to 85 percent, and the buzzing stopped. He cleared his wingman into the chase position for a battle damage check which was negative. As he advanced the throttle back to mil power, the buzzing returned at 86 percent and the RPMs would not go any higher than 89 percent. All other engine instruments were normal. Maj Brotherton immediately configured the jet and landed uneventfully out of the SFO pattern. He cleared the runway, and shut down in EOR. Subsequent investigation revealed Maj Brotherton did in fact ingest a bird on take-off, damaging some of the fan blades. Total time from take-off to landing was a mere 7 minutes. Maj Brotherton's quick evaluation, expert knowledge, and timely decision making safely ended what could have been a disastrous situation, preventing the possible loss of life and a valuable aircraft.

Maj Shane M. Brotherton, 147th Fighter Wing, Houston, Texas



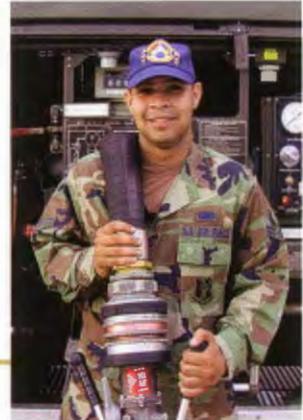
Ground Safety

Award of Distinction

A1C Feliciano was defueling an HC-130P, and noticed a rise in the nozzle pressure gauge on the instrument panel of his R-11 refueler. He immediately initiated emergency shutdown procedures. At the same time, the basket strainer seal ruptured causing fuel to

spill on the ground. He quickly completed his shutdown procedure and closed the tank isolation valve stopping the continuation of fuel. His utilization of training and calmness under pressure stopped 3,000 gallons of JP-8 from spreading across the parking ramp. His swift actions thwarted the potential of fire destroying the refueler, adjacent aircraft, and injuring personnel. His actions also averted a potential environmental hazard; thereby, preventing damages to the surrounding environment.

**A1C Edgardo J. Feliciano, 347th Logistics Readiness Squadron,
347th Rescue Wing, Moody AFB, Georgia**



QUARTERLY AWARD WINNERS

Flight Safety

Award of the Quarter

Capt Benjamin is the 33d Fighter Wing Chief of Flight Safety. During this quarter, he utilized an uncanny ability to forecast and mitigate risk, often stepping in as acting Wing Chief of Safety to ensure an environment free of serious mishaps both at home and deployed. He also applied his extensive F-15 operational knowledge toward flawlessly investigating and editing complex flight safety mishap reports which ran the entire gamut of F-15 systems. He personally investigated engine, physiological, and airframe issues with equal vigor, submitting each on time or early, with no corrections required. Deploying to Operation IRAQI FREEDOM with the 58th Fighter Squadron, he flew eight combat missions and over 60 combat hours. His efforts guaranteed mishap-free air supremacy and high-value airborne asset protection, 24/7, even while being fired upon repeatedly and during all weather conditions. He aggressively blended flight safety duties with combat requirements in a bare base environment and brought the lessons home for local dissemination, future planning, and subsequent reporting to the CAF — 33 FW safety personnel are already better

prepared for the next deployment. Upon return from the desert, Capt Benjamin stepped up to the plate and seamlessly took the reins as Chief of Safety during the Chief's numerous absences. For the 101 Critical Days of Summer campaign, he ensured coordination with Coast Guard Auxiliary, Florida Highway Patrol, and National Crime Prevention Task Force, thus far establishing a mishap-free summer in every significant category, including two- and four-wheel motor vehicles as well as sports and recreation. He conducted a world-class wing quarterly flight safety meeting, capturing deployed lessons learned, forecasting potential spring and summer trends in an uncommonly congested local flying environment, and directly contributing to local flying which has been free of serious mishaps. He kicked off a command-leading ORM assessment program during annual squadron safety inspections, already benchmarked by 9 AF and ACC, and he has prevented potential damage to 33 FW and host base aircraft by being highly proactive on issues ranging from BASH to construction of aircraft sun shelters, as well as ongoing improvements to local navigational aids and arresting cables. Capt Benjamin is truly a one-man force multiplier!

Capt Adam D. Benjamin, 33rd Fighter Wing, Eglin AFB, Florida



Ground Safety

Award of the Quarter

As Electronics Technician, Radar Maintenance, Mission Systems Flight, 4th Communications Squadron, Mr. Wayne R. Moriniti identified and reported a mis-marked radar part in the Air Force Supply Inventory, preventing use of an incorrect part that would have led to injury or death. Mr. Moriniti discovered a part number discrepancy on a relay received from the Air Force Supply Inventory. The part number on the shipping material and on the package containing the relay matched the requested relay part number, but the relay inside had a similar but different part number. The relay looked identical to the one requested, but its internal characteristics were different. Upon further investigation and based on his vast maintenance experience, Mr. Moriniti identified that installing this incorrect relay into the Airport Surveillance Radar (ASR) transmitter would cause high voltage to remain in the unit upon system shutdown and leave the technicians exposed to high voltage. If used, the electrical shock hazard could have caused severe injury or death. After

identifying the potential hazard, Mr. Moriniti took steps to find out if this was an isolated mistake and to ensure no other base received this faulty part. He notified Supply Customer Service and Air Force DEPOT so they could investigate the situation. DEPOT checked the item inventory, found eight more mis-marked assets, and determined that the entire inventory needed to be frozen. DEPOT has frozen the assets until the situation can be corrected. With Mr. Moriniti's identification of this mis-marked part, DEPOT has contacted all units that have ordered this part to ensure it is not being used and to warn units who have used it of the electrical shock hazard. Upon identification that this was not an isolated incident, Mr. Moriniti also notified the ACC item manager, Special Maintenance Team, and Air Force Engineering & Technical Services to warn other units throughout the Air Force of this potential safety hazard. Mr. Moriniti's attention to detail and safety, his identification of an AF-wide problem of the mis-marked part, and his rapid notification through proper functional and safety channels upon discovery is commendable.

**Mr. Wayne R. Moriniti, 4th Communications Sqn., 4th Fighter Wing,
Seymour Johnson AFB, North Carolina**



Weapons Safety

Award of the Quarter

A1C Martin P. Casias' hard charging attitude and attention to detail set the example for other airmen to follow within the munitions storage area. While deployed in support of Operations ENDURING FREEDOM, SOUTHERN WATCH, and IRAQI FREEDOM, A1C Casias was a key player in the buildup of over 5,853 guided and unguided munitions without incident, totaling 2,265,429

pounds net explosive weight. Additionally, A1C Casias flawlessly performed post load inspections on 200 GBU-12s verifying fuze settings were correct and no fuzes had been armed. His technical knowledge was invaluable in the teardown, inspection and re-packing of 200 assembled GBU-10 and GBU-24 bombs, preserving service life of critical bomb components. He was instrumental in the training of 28 munitions account custodians ensuring they understood the storage and handling of explosives IAW AFMAN 91-201. A1C Casias consistently strives to ensure all explosive safety criteria are met. His efforts directly contributed to the 4 FW continued zero Class A, B, or C weapons mishaps the last 13 years.

**A1C Martin P. Casias, 4th Equipment Maintenance Sqn., 4th Fighter Wing,
Seymour Johnson AFB, North Carolina**



The Missile's not Pinned!

By TSgt Deryk Johnston, Nellis AFB, Nev.

Attention to detail and self-discipline are a couple of important self-imposed actions required while working on the flight line. As a weapons load crew expediter, it is my job to oversee the weapons maintenance being performed on the flight line. As you read this article, you'll recognize how a lack of attention to detail, a lack of self-discipline and complacency can negatively affect how you accomplish a routine task.

Several years ago, I was preparing for the next day's missions. The flying schedule required that two AIM-7 air-to-air intercept missiles be loaded on each aircraft on the schedule. That night, I tasked my load crews to load AIM-7 missiles on the aft AERO-7 missile launcher stations of our F-4G Wild Weasels. During live loading, an expediter is always on site in case something goes wrong and he has to call in an emergency. This happened to be one of those nights and I happened to be that expediter.

The load crew I tasked was experienced and very familiar with each other. All of them knew their load crew position responsibilities, and they also knew what the other crewmembers would be accomplishing at any given time during the load. It was as if they could read each other's minds. However, on this night, the #2 person on this experienced crew was on leave, and his replacement was relatively inexperienced and not familiar with the rest of the crew.

The loading procedure began when the #1 and #3 person on the load crew brought over the first missile on a bomb lift truck. It was positioned and loaded by the #1 person, then locked in by the #2 person. What the #1 person didn't realize was that

the #2 person didn't assist in the positioning of the missile, like his regular #2 person always did. In addition, the new #2 person failed to properly lock the forward missile lug. As a result, the front hook was sitting on top of the lug and pushing down on the missile instead of being properly locked! Luckily the aft hooks had caught the missile. These hooks were the only things holding the missile in place.

To further complicate the situation, the new #2 person failed to install the safety pin in the proper mechanical locking hole. The pin was mistakenly installed into a missile launcher side plate cutout. Unaware of the improperly loaded missile, the load crew proceeded to finish up on the other side of the aircraft.

As they were walking away to start another job, I was performing a post-loading inspection on the air-

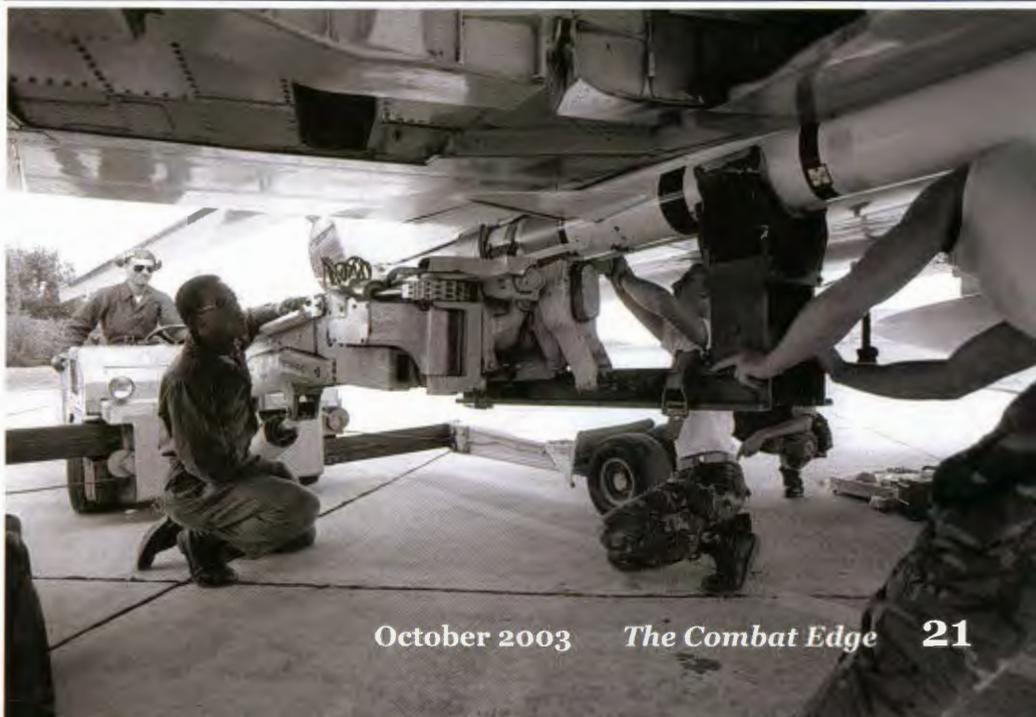
craft when I noticed that the forward missile lug wasn't properly locked in. Upon further investigation, I noticed the safety pin was not installed. My heart stopped (at least it seemed that way) as I realized that this missile was as close to falling off the aircraft as it could possibly be. I quickly pinned the missile and immediately called the crew over to reload the missile.

As you can see, attention to detail is vital. This potentially disastrous incident would have been avoided if the #1 load crew chief had ensured the #2 person knew what was expected of him during the load operation. Also, the #1 load crew chief should've had the self-discipline to follow his loading checklist to ensure the missile was properly post loaded.

Finally, complacency set this load crew up for failure because they were too comfortable with each other's loading knowledge and took a loading operation for granted. When the variable of a new load member (#2 person) was thrown into the mix, the load crew didn't adjust their operation as needed to ensure success.

Remember, anytime you feel complacency growing in your work environment, you must fall back on attention to detail and self-discipline to get your operation back on track. Hopefully, this will help you and your fellow workers avoid a possible incident like this. ▶

On a post-loading inspection I noticed the forward missile lug wasn't properly locked.



Minimums are not always

Minimums are not always enough for Lt Col Daniel Surowitz, Langley AFB, Va.

By Lt Col Daniel Surowitz, Langley AFB, Va.



It began simply enough. We were to fly to the southeast and take two aircraft to the northwest. We were to fly profiles for the test customer, then return the jets to homebase and the mission would be complete ...

Enough!



Flying in bad weather used to be more fun. Many times, on an early assignment as an F-4 AETC Instructor Pilot (IP), the clouds were below minimums for students, but still legal for continuation training. The challenge was to find another instructor to fill the empty seat — then we both could log flying time and challenge our instrument skills. With a qualified safety observer and a number of airports in the local area, it was common to go through an hour of “bet you can’t fly that approach!” We’d challenge each IP to navigate to a designated

Initial Approach Fix (IAF), fly an entire published approach to minimums, and then swap roles for the next round. Debrief and critique were as brutal as in any schoolhouse, but the exercise built confidence in instrument procedural knowledge, aircraft systems, and respect for the rules.

Fast forward 20 years to a later assignment, a test organization in the southwestern United States. There the focus shifted from honing skills in a challenging instrument environment to pure mission accomplishment. With that change, the decreased

number of bad weather days, and the philosophy that there are just too many good days on which to fly, we didn’t do much weather flying. The unit was made up of both active duty and civilian pilots. We flew enough to keep current and meet requirements, but rarely flew practice sorties in bad weather just to hone instrument skills. Many missions included flying lines as threat simulators and returning to base for a couple practice patterns for the day. Now, take a pilot who did not fly extensively in weather, deploy to a place with challenging weather, add some equipment

malfunctions, and a routine mission got real interesting, real quick.

It began simply enough. We were to fly to the southeast and take two aircraft to the northwest. We were to fly profiles for the test customer, then return the jets to home base and the mission would be complete.

The first hops went fine — deliver jets, eat seafood, and pick up jets the following day. Weather for the return flight wasn't bad. The forecast called for intermittent clouds and required an alternate, but conditions were well above approach minimums. During the flight, however, an en route update indicated that the weather was worse than briefed or expected.

The flight lead split the two-ship for individual approaches. Approach control didn't pick up the wingman's squawk — IFF wasn't used while the element was together. This was the first indication of a problem.

The following day, the two-ship left their warm southern environs for the Pacific Northwest, and a 40-degree temperature change. Along the way, an intermediate fuel stop hinted at things

to come. One of the two jets just did not like the cold air. After multiple attempts to start engines and a losing battle with sunset, lead continued to the deployed location, and number two spent the night planning to pre-heat the engines the following morning before another starting attempt.

The next day was not a lot warmer, but the preheating made a difference. The engine finally started, and number two showed up a day late.

The weather was consistent for the deployment — ceilings just above minimums, clouds layered to the moon, with icing forecast in the clouds. It really wasn't that bad. Cloud bases were high enough to legally take off and the layers were not all that thick. The icing was brief enough to fly through without causing trouble. One could always find clear space in the working area — with enough work, we managed to get enough done to complete successful missions.

On our way back we would pick through the weather, fly a real instrument approach, and break out of the weather just above the

minimums. After a couple days we fell into a regular routine. Number two's faulty IFF was replaced once more. Since that jet was always scheduled as number two, those problems went undetected. It was a little tougher for the guy who had to hang on the wing through the weather and ice, but we were all experienced, well qualified, and all of those conditions were within the limits. We had the routine down.

On day four the morning forecast was the same — low ceilings with sleet and snow, layered clouds, and icing. We briefed our standard mission to include keeping our crippled jet on the wing, preflighted our jets in the rain, and took the runway. Formation take-off went fine, and we entered the weather as advertised. It didn't take many radio calls to figure out that rain had entered number two's cockpit affecting his radio and making some transmissions difficult to understand. This was not a significant problem — he would be on the wing all day, and besides, his receiver worked fine.

After a couple vectors toward the working airspace, we

The morning forecast was the same — low ceilings with sleet and snow, layered clouds, and icing.





Sometimes the minimums are not enough — on each flight, every pilot should plan for unexpected weather conditions!

started a climb and entered the ice. As the front of my canopy iced over, I looked over at number two. Though I could see him looking back, his helmet was disappearing behind the thickening ice covering his canopy. Just before it became impossible to see, we climbed out of the icing. That was good, but we knew we would have to fly back through the ice on the way down.

We pressed on to the working area and climbed to the top of the airspace. There were almost always breaks in the cloud layers, but not today. The entire northwest was pretty much the same — solid from the base of the lowest clouds up to higher than we could climb. The decision to return to base early was an easy one, but there was a catch. In that kind of weather it made sense to clear off number

two for his own recovery. But with a bad radio, and a unreliable IFF, that was not an option. He would have to just hang on the wing for the trip back.

The trip home was as much fun as the trip out. The clouds were solid, the ice was still thick, and the bases were right at minimums for our approach. We landed safely, cancelled the afternoon go, and reviewed the high and low points of our morning flight.

We aviators frequently lean forward to get the job done. Risk management is a part of every sortie. Sometimes, a number of small acceptable risks add up to a total that exceeds common sense. The weather was above minimums, and the forecast was the same as it had been. Contin-

gencies were briefed, and all the pilots were highly experienced. Those radio and IFF malfunctions were minor irritants when flying in good weather, but added up to significant problems in solid instrument meteorological conditions (IMC). The icing was within aircraft limits, and wasn't bad while flying heads down on the instruments, but flying visual formation through thick clouds and thick ice was a pretty heavy task load. The pilot was freezing on the early leg due to a faulty heater. That malfunctioning system was never noticed in the warm southwest. When we looked at the total of the accepted risk, it was clear there was nothing to be gained by trying that again. Sometimes, having just the minimums is not good enough. ►

Life

By Lt Col Brian Mullin, Ramstein AB, GE

passing Before My Eyes



The day after Thanksgiving, 2002, began ordinarily enough for me — but became nothing less than extraordinary. That was the day I watched as a man saw his life literally flash before his eyes — and mine! At the Army & Air Force Exchange Service (AAFES) main service station on Lackland Air Force Base, Texas, just before 1400 hours on 29 November, everyday, ordinary static electricity ensured I (and that man) would never forget that day.

Robert 'Bob' Clewis, a 58-year-old retired Air Force Technical Sergeant, was at the service station for gas that day. Like most "self-service" fuelers in America, Bob had little knowledge of or training in refueling operation safety. Unfortunately for Bob, that day he received safety training the hard way — under fire.

Bob was refueling several external 5-gallon fuel cans for

use in his farm tractor and riding mower on his 8-acre farm in Natalia, Texas. When I arrived and parked in the adjacent refueling bay, I barely noticed the man up in the back of his pickup truck, but when I turned to begin filling my own vehicle, I faced Bob across the roof of my car.

In the 1 or 2 seconds I faced him, I was forming a statement in my mind to tell the man not to do what he seemed to be doing — refueling external gas cans from inside his pickup truck's bed. Worse yet, the truck had a polyurethane (plastic) bed liner. As a trained safety officer and Air Force pilot, I recognized a recipe for disaster, and disaster is exactly what ensued. Before I could speak, I saw flame — not the flash that others saw in the video tape of this incident — but an ethereal, dancing, fluid-like substance. In anyone else's reality — it was a FLASH!

At that point, things began to click quickly in my brain. In the

pilot world, we call it temporal distortion — time seems to slow down as the adrenaline expands all your senses. The next 57 seconds were surreal for me. I yelled at the man to jump — "GET OUT!" Instead Bob, who was probably in shock, danced wildly in his truck with the fuel hose still in his hand as he attempted to beat away the growing flame. I yelled, "Jump!" again, but Bob, instead of jumping, dropped the hose, picked up the last-filled can (the one he thought was the source of the fire), and threw it about 15 feet off the back end of his truck. That movement caused the growing inferno to spread dramatically to the rear and almost explode over the just-thrown metal jerry can. It was 2 to 3 seconds from the initial flash when Bob finally responded to my yells and jumped from the side of his pickup truck bed.

We both moved forward, away from the refueling islands, and I yelled for Bob to drop and roll (more about that later). Bob

did drop, and I, without thinking, pulled off my two T-shirts and attempted to snuff out the flames engulfing his lower extremities. As a trained safety professional, I knew how Bob got himself into this mess — but I was not prepared for extinguishing a flame-engulfed, fuel-soaked individual. Other bystanders came to our assistance and we were

“shocking” each other when conditions are right. Any high school class can learn about the scientific background of the static-electric phenomena which has been well understood since Benjamin Franklin’s time — and before. What isn’t well understood are the hazards from static electricity when the general public uses self-service gas stations. Unfortu-

and devices provided by the station. Are there fire extinguishers and where? Are there universal graphics or a written laundry list of “Do’s and Don’ts”? Where is the emergency fuel shut-off button? Once you have a feel for your surroundings — follow the rules you’ve just reviewed! In the unlikely event you find yourself in a service station that has no



This series of photos shows how the fire, caused by static electricity, progressed — seriously burning Mr. Bob Clewis.

able to extinguish the flames — but it took nearly 1 minute!

As I write this article, I still can’t believe that this extraordinary event took place right in front of me. As an Air Force pilot, I can’t help but review and second-guess my every move — especially in light of facts that have surfaced: the existence of a video (for AAFES surveillance) of the event; the possibility that some fire extinguishers may have been available on scene; and the fact that this event was sensationalized in the national media. My review brings me to the glaringly obvious point: This tragedy was 100 percent preventable!

Contrary to some of what the media reported about the “unknown, extraordinary and freak” nature of this accident — static electricity is none of the above. We all know about static electricity because we all have experienced it firsthand through childhood antics of

nately, this event is not an isolated one either — it’s just that this one was caught on video.

Despite the safety education efforts of petroleum companies and various state and federal regulators, the average person filling up at a gas station is not aware of the potential danger in refueling operations. To move from the sensational to the education arena of this story — I’ll cover just the most obvious safety precautions for refueling. My colleagues in the Air Force safety profession will have

safety information or devices — follow these basic rules provided by the National Fire Protection Association.

So what are the other lessons I learned from this intense event? I learned that fuel-immersed individuals (or objects) tend to immediately re-ignite unless oxygen is completely and continuously eliminated from the fire triangle equation. To review: heat, oxygen and fuel are required to sustain ignition (flame). Unless there is a suffi-

Don’t underestimate the dangers of static electricity ...

reviewed my suggestions, so they should be on the mark and helpful.

When pulling into a refueling station — do as you do when taking a commercial airline flight — review the safety information

cient, large amount of water or other agent available to snuff the oxygen or cool the area enough, water alone won’t put out a petroleum fire. That’s why most service stations have [dry-chemical] extinguishers or other



Happy Reunion resources on-hand to fight petroleum fires. As I said earlier — look around and see what's available in case you find yourself in my position.

Lt Col Brian Mullin and Mr. Bob Clewis post rescue.

When I interviewed Mr. Clewis at his hospital bed, he remembered much about what he was doing that day prior to the fire — grocery shopping — but little about the actual event beginning. He, like most others,

was not aware of the hazards of static electricity at gas stations. Bob, like myself, experienced temporal distortion from the moment he saw the flame. He described it like water: "When I put the nozzle into the big can ... a little [fingers dancing] ... then whoosh! ... whoah!" Bob went on, "Nothing's ever going to take that [memory] away." When

guessing what he'd feel like when he finally goes to a gas station again, Mr. Clewis said, "There's going to be some fright in there ... but I'll tell you [pointing to his head], there's going to be some safety [thoughts too]."

To sum up the human story, Bob is okay and on his long journey to recovery after suffering third degree burns to nearly 20 percent of his body. The burn-specialist medical professionals I spoke with told me a person's likelihood of recovery from third degree burns decreases rapidly as the 50 percent threshold is approached — and the majority of burn victims eventually succumb to their injuries when over 50 percent of their body is burned to the third degree. Mr. Clewis was lucky. Describing his feelings, he said, "I feel blessed, saved. It wasn't my time to go ... guardian angel or whatever, I guess I'm supposed to continue this journey." When I asked if he'd mind telling his story, Bob said: "Would I travel and talk about this? Yes! I couldn't show 'em what [my body] was before, but I could show 'em what's left." ▶

Editor's Note: Courtesy of Air Scoop Magazine

Gas Station Do's and Don'ts

Do's

- Use only approved external fuel containers
- Ground any container and fill only on the ground
- Ground yourself (e.g., touch a metal pole, car, etc.)
- Remain at refueling hose and stay alert
- If getting back in your vehicle is necessary, re-ground yourself



Don'ts

- Smoke
- Use cell phones (turn it off if attached to you)
- Leave your car running
- Put fuel in anything other than approved containers
- Refuel containers except on the ground

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(4) Other Classes Mailed Through the USPS	0	0
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d. Free Distribution by Mail	0	0
(1) Outside-County as Stated on Form 3541	0	0
(2) In-County as Stated on Form 3541	0	0
(3) Other Classes Mailed Through the USPS	0	0
e. Free Distribution Outside the Mail (Carriers or other means)	0	0
f. Total Free Distribution (Sum of 15d. and 15e.)	0	0
g. Total Distribution (Sum of 15c. and 15f.)	13,916	13,883
h. Copies not Distributed	265	265
i. Total (Sum of 15g. and h.)	14,181	14,148
j. Percent Paid and/or Requested Circulation (15c. divided by 15g. times 100)	100	100
16. Publication of Statement of Ownership <input type="checkbox"/> Publication required. Will be printed in the <u>Oct 03</u> issue of this publication. <input type="checkbox"/> Publication not required.		
17. Signature and Title of Editor, Publisher, Business Manager, or Owner <i>Barbara J. Taylor</i> Major, USAF Executive Editor	Date 1 Sep 03	

I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions (including fines and imprisonment) and/or civil sanctions (including civil penalties).

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- Complete and file one copy of this form with your postmaster annually on or before October 1. Keep a copy of the completed form for your records.
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- In item 16, indicate the date of the issue in which this Statement of Ownership will be published.
- Item 17 must be signed.

Failure to file or publish a statement of ownership may lead to suspension of Periodicals authorization.

PS Form 3526, October 1999 (Reverse)





FY03 Aircraft

As of September 2, 2003

	Fatal	Aircraft Destroyed
8 AF		
9 AF		 HH-60
12 AF		
AWFC		 * RQ-1 * 
ANG (ACC-gained)		
AFRC (ACC-gained)		

FY03 Ground

As of September 2, 2003

	Fatal	Class A	Class B
8 AF		7	1
9 AF		10	1
12 AF		11	0
DRU's		3	0

FY03 Weapons

As of September 2, 2003

	Class A	Class B
8 AF	0	0
9 AF	0	0
12 AF	0	0
AWFC	0	3

Aircraft Notes

Sports fans, we're on a roll! That's 2 months running without a Class A mishap. Class Bs were in the single digits and both Class Cs and Es were in the mid-teens. Primary culprits are ... no surprise here ... engines and flight controls. Electrical problems and physiological incidents are among the cats and dogs. I heard a football coach once yell, "Watch the pass! Watch the draw play! Watch the running play! AAHH! Watch EVERYTHING!" Don't become complacent! Pay attention and take action to break the chain of events that leads to something bad. Fly safe.

Ground Notes

The FY03 101 Critical Days of Summer are over. ACC did not fair well this year. We experienced 12 Class A mishaps, five were PMV2, six were PMV4, and there was one on-duty industrial mishap. The 12 mishaps represented a 33 percent increase over last year's total. PMV2 mishaps are 400 percent over last year's total and PMV4 mishap are up 33 percent.

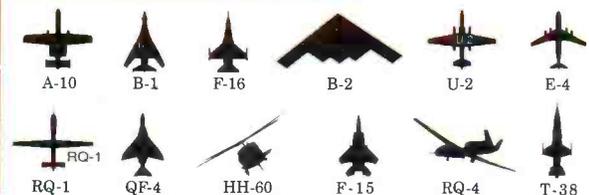
Weapons Notes

This was a busy quarter for missile mishaps. We had one Class B involving an AGM-130 and three Class D CAP-9 missile mishaps. The CAP-9 mishaps ranged from broken seeker heads to dropped guidance units. Most of these could have been prevented with the use of ORM. Sounds cliché, but ORM does make you think through the task at hand. Remember, "You are always just one decision away from a mishap or preventing one."

Legend

Class A - 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
 * Non-rate Producing

Symbols for Mishap Aircraft





You can prevent fires!



The Combat Edge

Smoke Detector Safety Tips:

- Test your smoke detector at least once a month by pressing the test button
- Change batteries once a year
- Dust and vacuum smoke detectors once a year
- Replace smoke alarms every 10 years