

# THE COMBAT EDGE

OCTOBER 1995



# The Combat Edge

AIR COMBAT COMMAND  
SAFETY MAGAZINE

Gen Joseph W. Ralston  
Commander

Col Zak Tomczak  
Chief of Safety

Lt Col "Nellie" Beard  
Editor

Ron Smith  
Art Director

Barbara Taylor  
Awards Administrator

Sgt Mark S. Bailey  
Staff Artist

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**CONTRIBUTIONS:** Articles, comments, and criticisms are welcome. Write:

Editor, *The Combat Edge*  
HQ ACC/SEP  
130 Andrews St Ste 301  
Langley AFB VA 23665-2786

Telephone: (804) 764-3658  
DSN 574-3658  
FAX: (804) 764-6362  
E-Mail: beardn@hqaccse.langley.af.mil

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#### ABOUT THE COVER

On this month's cover we feature Air Combat Command's Security Police. Security and safety are a complex relationship that must go hand-in-hand to build protection for our resources and people and prepare us for war. The partnership between safety and security strengthens and fosters mission effectiveness. The photographs used are courtesy of the 1FW Security Police, Langley AFB VA.





# ACCent on Safety

*"I find the great thing in this world is not so much where we stand, as in what direction we are moving...we must sail sometimes with the wind and sometimes against it — but we must sail, and not drift, nor lie at anchor."*

Oliver Wendell Holmes

**A**s American poet and novelist Oliver Wendell Holmes espoused, "...we must sail, and not drift, nor lie at anchor." After just over a month as the Chief of Safety, let me assure you that we are definitely sailing and we're headed in the right direction. My thanks to Col Fack Acker for turning over a finely-tuned, focused, dedicated organization. Our sails are set, the course is known, but we can't run it alone — we need each and every one of you. We must all make a willful, conscious effort to incorporate a dedicated focus on safety and risk assessment into our everyday way of life and how we do business. We can better protect people and preserve resources by continuing to make improvements to our culture of safety.

Since I'm writing this in early September, I'm hesitant to comment on how we'll finish the fiscal year in relation to our safety goals. Suffice it to say, at this point, there will be some success stories and some areas that may fall short when we wrap up FY 95. I promise you a complete FY 95 stakeholders report next month after we consolidate and finalize all of the statistics.

In the meantime, we're pressing ahead and establishing new safety objectives for FY 96. Continuing fiscal constraints, personnel reductions, realignments, and base closures coupled with increased deployments and ever-expanding commitments dictate we establish and achieve ever more challenging objectives. Without going into great detail on the objectives, just let me say they are going to be the toughest objectives we've ever established. Achievable? Absolutely — but not without your help.

As you can see, FY 96 will be a challenging time. We're starting the transition into the fall/winter flying months. Rapidly changing weather patterns, shortened daylight flying periods, and associated operating hazards (cold weather, ice, snow, etc.) can all impact a safe flying operation as well as every other operation on base. I just came from Alaska where I spent 2 years as the vice commander of the 354th Fighter Wing at Eielson. Believe me, we weren't called "The Icemen" for nothing. If you see someone driving on base at 10 mph or taxiing an F-16 at 5 knots this winter — it's probably me. The key, as always, is to plan ahead, use common sense, and don't take unnecessary risks. Each and every one of our aircraft and people are crucial to ACC's combat potential — potential we can't afford to lose due to needless mishaps and unwarranted risk taking.

Finally, I'd like to thank everyone in the command for their mishap prevention efforts this past year. Let's make '96 better!

**Colonel Zak Tomczak**  
Chief of Safety

# F A T A L E R R O R

THE MISSION STARTED AT MCCHORD AFB IN TACOMA WA. I WAS THE COPILOT WITH A NEW AIRCRAFT COMMANDER (AC) WHOM I CONSIDERED TO BE PRETTY GOOD. WE WERE ON OUR WAY HOME AFTER DROPPING OFF SOME FOLKS TO DO SIMULATOR TRAINING. AFTER CHECKING THE NOTAMS AND WEATHER, WE FILED OUR FLIGHT PLAN AND HEADED FOR THE PLANE.

*1 Lt Nathan A. Allerheiligen  
41 ECS/SEF  
Davis-Monthan AFB AZ*

During the AC brief, the pilot hit all of the standard items about ground egress and route of flight. Since he had just reached 100 hours of pilot in command time, he decided to let me do the takeoff. He followed the squadron standard for the abort sequence and briefed that I should bring the throttles to flight idle where he would “bump” my hands off and take positive control of the aircraft. I would then revert to copilot duties. I did the Before Takeoff/

Departure briefing. I mentioned the abort sequence again and briefed engine shutdown, fuel dumping, and antenna jettison should we lose an engine after the “GO” call. As I briefed the weather of a 300 foot ceiling and 4 miles visibility, I realized that we would need to do an emergency return to an instrument approach, rather than the usual VFR delay we brief in Tucson. I set up for the instrument takeoff (ITO) and finished the checklists.

I was a little excited rolling down the runway as I thought about my first, no kidding, ITO. My cross check was feverish as I lifted off the ground. With two positive indications of a climb, I called for the gear up and started to relax as I worked into the instruments. I usually raise the flaps right

after the gear is confirmed up and locked, but this time I waited to catch my breath and home in on maintaining my attitude. At 140 KIAS and 350 ft AGL I called for "FLAPS UP." The pilot repeated my call and moved the flap lever to the up position.

As I called for the AFTER TAKEOFF Checklist, the old "spider senses" told me something wasn't right. Sure enough, I looked at my ADI and the aircraft was rolling past 15 degrees of right bank. My first words were "split flaps," but no one responded. I confirmed the bank angle on the pilot's ADI and was working desperately to return to wings level flight. The pilot then started saying "step on the ball." The plane was flying uncoordinated because of the adverse yaw, but that was the least of my worries. Again he said "watch your ball." In my mind, the most important problem was the 20 degrees of bank and the rolling tendencies that I was fighting with two hands. His next statement was "watch your altitude." I looked

never mentioned what to do once we became airborne!

Here are some things to think about. In a critical situation, concentrate on the true problem. The AC was focused on the turn and slip; I was focused on the bank angle; and the engineer was out of the picture. The procedure for split flaps is to move the flap lever toward the original position until the aircraft is controllable. Although I said "split flaps" once, nothing was done by anyone and I was too task saturated to say it again. In a repeat demonstration, we found that the aircraft was controllable at that airspeed and configuration. We had crashed

**Although I said "split flaps" once, nothing was done by anyone and I was too task saturated to say it again. In a repeat demonstration, we found that the aircraft was controllable at that airspeed and configuration. We had crashed a flyable aircraft.**

closer and discovered the nose had dropped and we were in a 500 fpm descent from our altitude of 600 ft MSL. Not good when the ground is only 200 feet away! I desperately pulled back on the yoke, twisting it left in order to return to a wings level climb. The pilot again said something about the turn and slip indicator, and I said "I got it!" After his fourth statement about the turn and slip, I simply let go of the controls as he grabbed them. Then I felt the violent shudder and saw nothing else...

The next thing I saw was a bold red background with black letters reading "FATAL ERROR" as the operator reset the simulator. We weren't dead. We hadn't crashed a multimillion dollar aircraft. We were simply another set of victims in the world's best Crew Resource Management trainer, the full motion simulator. Did you notice that we never briefed what to do in an airborne emergency? We were so focused on problems on the ground we

a flyable aircraft.

When you brief emergency procedures, be sure to cover all phases of the flight, from brake release to taxiing clear. That includes transfer of control after takeoff, climb out, cruise, descent, final, flare, roll out, and touch-and-go's. If the aircraft commander doesn't brief them — do it yourself. Not having clear procedures for critical problems can have severe consequences. Had we been in a real aircraft, you would most likely be reading this as part of a mishap investigation report — not a safety article. ■



***F-16 High AOA***

# **FAMILIARIZATION PROGRAM**

***Increasing In Pace***



*Maj Russ Prechtl  
416 FLTS/DOOA  
Edwards AFB CA*

**T**he F-16 Combined Test Force (CTF) at Edwards AFB CA is training the world's operational F-16 pilots on departure resistance and deep stall recovery one pilot at a time. Some deep stall incidents highlighted the need for an awareness program that would educate visiting pilots about F-16 flying qualities in the high angle of attack regime. The program is gaining popularity; and a growing number of F-16 pilots from Air Combat Command, ANG and AFRES units, Air Training and Education Command, as well as Foreign Military Services, are participating in the training program.

The training begins with a multimedia presentation explaining the F-16's characteristics in the high angle of attack regime, as well as how to avoid departing from controlled flight. The F-16's characteristics in a deep stall are reviewed, as well as how to safely and confidently recover from a deep stall. A squadron instructor test pilot provides a detailed analysis of the F-16's behavior in this regime.

Once the academic foundation is laid, the visiting pilot and his instructor climb into one of Edwards' general support fleet Block 10, small tail F-16's to fly the familiarization profile. First, several maneuvers are flown to demonstrate how the F-16 can be aggressively maneuvered near the edge of the operational envelope without departing controlled flight. This is an important lesson that is emphasized throughout the program. After the departure avoidance maneuvers, several intentional departures are flown which are allowed to progress into deep stalls. This allows the pilot to observe F-16 post stall characteristics and recover the aircraft to controlled flight. After 8 to 10 departures, the pilot has the confidence to handle the F-16 in any operational situation that requires flying the aircraft near

the edge of the envelope.

The mission concludes with several simulated flameout (SFO) approaches to Edwards' main runway. The pilot practices SFO touch-and-go's and an SFO full stop. This training is also important for familiarizing the pilots with the F-16's landing qualities in the SFO pattern. For the past 6 years, most USAF F-16 pilots have been unable to practice these approaches to touch down. The familiarization program at Edwards AFB allows these pilots to observe how the F-16 will actually float as far as 3,000 - 4,000 feet in ground effect as the transition to landing occurs from an SFO approach. This type of real world training is greatly supported by every pilot who has visited the F-16 CTF. One typical comment is that "every F-16 pilot should have this training."

Another benefit of visiting the F-16 CTF is that the corporate knowledge of all models of the F-16 are contained here. The pilots and engineers working at the F-16 CTF have tested the avionics, propulsion, weapons, and flight controls of every model of the F-16 operational today. Any visiting pilot can satisfy any questions they may have about the latest update to the world's greatest fighter. ■

**The program is gaining popularity; and a growing number of F-16 pilots from Air Combat Command, ANG and AFRES units, Air Training and Education Command, as well as Foreign Military Services, are participating in the training program.**



# OUT OF THE LABYRINTH:

## Flight Safety Communication In Multi-National Operations

*Maj Jeffrey C. Alfier  
Chief, Airborne Systems Plans  
USCENTAF, Shaw AFB SC*

**I**n Greek mythology, the hero Theseus was determined to end the useless sacrifice of human victims to the Minotaur that took place every 9 years. When Theseus reached Crete, Minos' daughter, Ariadne, gave him a ball of thread which he fastened to the door of the labyrinth and unwound as he made his way through it. When he came upon the sleeping Minotaur, he beat him to death and led the youths and maidens intended for sacrifice safely back to the entrance of the labyrinth.

Today's air weapons controller peruses a lot of source material regulating the use of airspaces. It is a common practice for us to reduce such information to simple, manageable form and memorize it. This process is a sort of fermentation from otherwise verbose national safety procedures. In actuality, we cannot fault individual military and civil air traffic authorities for their emphasis on details; this is fine for life is full of complexities, not the least of which

are those things concerning flying safety. Sometimes there are conflicts between unit stan/eval and these local national procedures. In this case we use the more restrictive guidance because that way if we err, we err on the side of safety so dangerous situational awareness problems are less likely to arise.

Very often we may feel like Theseus as we sift through a labyrinth of regulations and criteria to plan the safest way to direct and advise aircraft that will come under our control in future missions. This means deciphering the essentials from the peripherals. This can become a complex task, as air weapons controllers are used to deploying throughout their theaters and, therefore, must deal with a large volume of nuances associated with operating in a multi-national environment. Our "thread" leading us out of the labyrinth becomes our ability to cull the essentials of flight safety requirements and employ them in a manageable format, ready to be utilized on

position at our radar scopes. This becomes especially important during times of dense air traffic in a high threat environment such as Operation DENY FLIGHT. This operation is made complex by the involvement of multiple ground and airborne control units, different aircraft types employed across the spectrum of offensive and defensive air operations, and the various language differences of NATO-member countries. DENY FLIGHT is my prime example for this article, but the principles could just as well apply to any multi-national environment, such as Operation SOUTHERN WATCH where USAF weapons controllers work with Arab, French, German (UN), and British forces.

Although all NATO headquarters above army corps level have been multi-national in the past, new force restructuring within NATO puts more fielded forces in a multi-national environment at lower tactical levels. Hence, we hear much discussion these days of coalition warfighting, which depends upon the compatibility and interoperability of systems. We may also say that flight safety must be "interoperable." As such, both ground-based and airborne weapons controllers should understand several factors when considering multi-national missions.

Good, clear communication is an important consideration, particularly the language differences among our Allies and their comprehension of the English language. An Allied pilot not well versed in English understands information passed from command and control (C2) agencies best if it is passed in the format and words he understands. Hence, we see a reemphasis on standardization throughout NATO. One particular twist to this is that NATO forces who regularly work with USAF fighter squadrons — particularly the RNLAFF — will likely employ operational brevity words and terminology more in parallel with the US' MCM 3-1. This does not necessarily apply at the same pace for all of our other allies. As a matter of fact, MCM 3-1 specifically states to "Use plain English when required." Joint RAF - USAF exer-

cises such as AIR WARRIOR show that there are numerous words in the English language which leave themselves open to misinterpretation, let alone the problems of colloquial English and regional dialects. Furthermore, procedural differences within NATO C2 systems may obscure a smooth communications flow. This makes strict adherence to NATO procedures for both pilots and controllers a must. Furthermore, solutions that solved a C2 problem within a US operation may not necessarily work when applied to an allied C2 architecture. Once again, flexibility is the key.

These language differences alone make strict adherence to established procedures crucial. For instance, delays may occur in implementing instructions from the Combined Air Operations Center (CAOC) due to language difficulties, which further results in a lag in the update of the air picture sent over data link to command authorities who are not hearing the difficulty of the pilot who cannot understand a controller's instructions. In DENY FLIGHT, this has happened on more than one occasion.

As controllers, we find ourselves integrating safety requirements with tactical information in order to accomplish the mission. For example, in DENY FLIGHT our main concerns are avoiding co-altitude fighters ingressing and egressing in corridors, flight following of UN relief flights, and ensuring that aircraft do not "bunch-up" over certain areas of the No-Fly Zone.

When a combat situation unfolds, it often occurs in an instant, as we have witnessed in the past over Bosnia, with the downing of an F-16 and a Harrier. Such cases have so far not developed into mature wartime theaters, but the potential exists for the hectic pace of combat to unfold. These kinds of situations mean that our routine is disrupted and controllers and aircrews must shift into high gear, as dull routine can become task saturation in a matter of seconds. I remember a quiet shift on scope being interrupted by a fighter calling out, "SAM launch, reacting!" This immediately ended the ennui of a tediously routine mission, despite the fact that it

turned out to be an erroneous indication. A fighter going down, or UN PROFOR troops being fired upon, means that aircraft under our control may now have to employ their weapons. When this occurs, there is sometimes a tendency to narrow our focus to the aircraft involved in the incident and the particular locale surrounding it. Furthermore, instructions regarding or impacting flight safety are often updated periodically, as we find in subsequent Airspace Coordination Orders (ACO).

In any event, flight safety awareness takes on a sharper focus when a tactical event occurs, since it may mean the insertion of combat search and rescue (CSAR) helicopters, the withdrawal of non-essential or unarmed aircraft such as halting of UN flights into Sarajevo, and other actions of controllers and aircraft responding to new courses of action. It is, therefore, incumbent upon controllers to ensure that all phases of the mission continue to receive adequate attention. For instance, a radio call that fighting has erupted in the Bihac pocket does not mean that we should allow our situational

awareness over aircraft flying near the eastern border of the No-Fly Zone to diminish. A drift into Serbian airspace in that area could prove disastrous, militarily or diplomatically. Complacency sometimes occurs among controllers when we place too much responsibility on a fighter's technology, such as on-board situational awareness systems that allow multiple INS points that give

fighters a continual awareness of their locations with respect to airspace borders. Technology is fine, but it is our human responsibility to ensure that aircraft do not venture into prohibited national airspace, resulting in their engagement by surface-to-air missiles, for instance. Potential SAM rings and adversary GCI radar coverage are two prime examples of areas to avoid.

There are other variables to consider in the communications realm. Aircraft entering the airspace without contacting the controlling agencies create another potential problem. Although they should be seen on radar before they enter the tactical airspace, it is best to have the controller acknowledge their presence with either a "positive radar contact" or a "radar identified" call. This is simple, standard communication terminology that all NATO units understand. An incident occurred once where a tanker pilot called the AWACS controller to ask "who that was who passed off my nose about a mile co-altitude." Such words do not portend well for anyone! In other cases, controllers should re-

alize that close air support (CAS) and tactical reconnaissance aircraft under their control will be concerned with such things as hazards of the terrain and man-made features while employing their aircraft down low. Tailoring their radio transmissions to essential information will help the pilot who is concentrating on attacking mobile ground targets at night in bad weather, as he at-

*Recent allied exercises, such as the Tactical Leadership Program (TLP) and the North Sea Air Combat Maneuvering Instrumentation Range Organized Multi-national Air Defense (NOMAD), have highlighted the need for a greater cross-feed of safety information with respect to both procedures and terminology.*

tempts to avoid sophisticated man portable air defense weapons (MANPADS).

Continual education and cross-feed among all forces and nationalities is the key. The US deploys Reserve Forces on a rotational basis to European/NATO areas of responsibility (AOR) who may not have the experience that an Aviano-based unit has. Therefore, it is incumbent upon units to ensure that their personnel are thoroughly briefed on the dense air environment during multi-national operations, such as DENY FLIGHT.

Recent allied exercises, such as the Tactical Leadership Program (TLP) and the North Sea Air Combat Maneuvering Instrumentation Range Organized Multi-national Air Defense (NOMAD), have highlighted the need for a greater cross-feed of safety information with respect to both procedures and terminology. NATO air forces are reworking training programs for accentuated versatility and mobility. The various AWACS organizations are ahead in these areas, due in part to their systems commonality and the fact that they are the battle managers. Flight safety procedures go hand-in-hand with establishing a common doctrinal language and operations structure. It will not be easy to achieve these goals, as we all prefer our own methods. But in the interest of flight safety we must adapt. This means that the more technologically advanced air forces must remain flexible, considering that they are working in an allied environment that runs

the entire spectrum of systems capabilities, some more advanced than others.

Possible enlargement of NATO member states and the reform of the alliance's military and political organizations will present new challenges for the future. This potentially means more contestants will be entering the communications arena; hence, our responsibility for clear and concise communications grows. New weapons systems

are being added to NATO air forces such as AMRAAM, recently fielded with Jadgeswader 71 at Wittmundhaven AB. These systems will affect rules of engagement (ROE), which are tightly interwoven with those of flight safety. An unknown aircraft violating a No-Fly Zone may be engaged differently, depending on the type of aircraft used in the intercept. Will it be visual or electronic identification? How close will the aircraft under the controller's direction come to each other? The bottom line remains the same: keep it safe! This means a lot of forbearance on the controller's part. No one wants to hear "say again" when they are informing a

NATO F-16 pilot that he is out of the No-Fly Zone and on his way into the jaws of a BAR LOCK acquisition radar. Let us not forget safety rules are a "contract written in blood." ■

*An unknown aircraft violating a No-Fly Zone may be engaged differently, depending on the type of aircraft used in the intercept. Will it be visual or electronic identification? How close will the aircraft under the controller's direction come to each other? The bottom line remains the same: keep it safe!*



## PILOT SAFETY AWARD OF DISTINCTION

*Capt Eric Eliel, 99 RS, 9 RW, Beale AFB CA*

"I was completing the final portion of an operational high altitude U-2 reconnaissance mission when my primary flight instruments began to fail. The main AC generator light illuminated on the central caution panel and warning flags appeared throughout the cockpit. The standby generator came on line but not before the INS dumped all flight data. At this point, I was descending from operational altitude without an auto pilot and no reliable heading system. I queried my landing base to determine weather conditions; they were calling 1,000 ft ceilings and 4 miles of visibility for my landing time. Based on this information, I continued descent and entered overcast conditions at FL 290. My main ADI was now providing reliable attitude information but my heading and navigation systems were unusable. I was receiving no-gyro vectors for a radar downwind when I was informed that visibility was now below one mile and ceilings were below 400 ft. I elected to continue as I had already dumped my excess fuel to achieve proper landing weight. I completed the no-gyro PAR and broke out on final at 3/4 miles from the approach end. Landing and roll out were uneventful. Maintenance analysis showed a significant power spike had occurred in the AC generator due to an overheat in the constant speed drive system."



## AIRCREW SAFETY AWARD OF DISTINCTION

*Capt Roger E. Oerter, Capt Edward J. Tanner  
SSgt Terrence P. Smith, SrA Joseph D. Clark (Not Shown)  
48 RQS, 49 FW, Holloman AFB NM*

At Kuwait International Airport, Kuwait City, Kuwait, the crew of Jolly 25, an HH-60G helicopter, departed for a local Night Vision Goggle (NVG) tactical training mission. On takeoff, the crew performed a standard maximum power check to confirm predicted engine performance. During the power check, at approximately 125 feet AGL and 40 knots indicated airspeed, the #2 engine developed a massive compressor stall. Capt Oerter immediately reduced the collective to keep the rotor from losing inertia, which by this point had dropped to 91 percent. He began an emergency approach to landing while declaring an emergency. Capt Tanner immediately identified the problem and in coordination with SSgt Smith, reduced the #2 engine throttle to idle while Sgt Smith monitored rotor speed. The rotor speed began to recover during the approach, but the engine continued to stall. Capt Oerter then directed Capt Tanner to shut down the #2 engine. SrA Clark cleared the aircraft over to a nearby taxiway during the emergency descent. Capt Oerter completed the emergency single-engine landing while still on NVG's. After completing a safe landing and confirming there was no post shutdown engine fire, the crew terminated the emergency.

# WEAPONS SAFETY AWARD OF DISTINCTION

*SSgt Scott S. Bishop, 34 CMT, 388 MS, 388 FW, Hill AFB UT*

Sergeant Bishop was acting as the subject matter expert in preparing for live drop exercises. During the pre-use inspection of 24 FMU-54 fuses, 12 MK 84 general purpose bombs and other related components with a total combined Net Explosive Weight of 15,000 pounds, an armed FMU-54 fuze was discovered. Sergeant Bishop terminated the build-up operation and immediately notified munitions control of the situation. He evacuated the area of all non-essential personnel and established himself as the on-scene commander until relieved by emergency response crews. After the fire department and Explosive Ordnance Disposal teams arrived, he briefed them as he escorted them to the incident scene where the weapon was rendered safe. Sergeant Bishop's attention to detail and prompt response was also the key to another evacuation. An armed M904 fuze was discovered while a crew was performing pre-use inspections on M904 and M905 fuses, boosters, MK 84 bombs, and their components, with a combined NEW of 12,000 pounds. Again, he followed established procedures to keep the area clear of personnel until the arrival of fire department and the EOD team. Sergeant Bishop's accurate judgment, timely actions, and vast knowledge of safety procedures were direct factors in minimizing this hazardous situation.



# UNIT SAFETY AWARD OF DISTINCTION

*7th Fighter Squadron, 49 FW, Holloman AFB NM*

The 7th Fighter Squadron is the only unit in the Air Force to conduct F-117A Initial Qualification Training with syllabi covering initial transition, air-to-air refueling, and surface attack training. Since May 92 the 7 FS has flown 12,286 sorties and 17,638 hours without a Class A or B mishap. This is a direct reflection of the squadron's superior attention to detail and excellent safety environment. The Air Traffic Control Liaison program established in the 7 FS has greatly contributed to the new F-117A students receiving valuable training needed with an extremely limited number of sorties. There have been zero reported HAPs (High Accident Potential) and HATRs (Hazard Air Traffic Reports) involving the 7 FS since May 92. The exemplary safety environment established by the "Screamin' Demons" is not just limited to home base. The 7 FS has also taken safety with them on deployments to Lakenheath, United Kingdom, Langley AFB, China Lake Naval Air Station, and Nellis AFB. Numerous air shows, static displays, and fly-bys throughout the continental United States and Canada, have all been achieved without an incident. Whether turning a wrench, teaching a new F-117A upgrading pilot, or filling out forms, the people of the 7 FS have answered the challenge, accomplishing the mission without a single incident.



**PHOTO  
NOT AVAILABLE**

## **CREW CHIEF EXCELLENCE AWARD**

*TSgt Jeff Bergstrassar, TSgt Ronald D. Bunda  
A1C Wade J. Shatter, 4 FS, 388 FW, Hill AFB UT*

While performing a thruflight inspection on an F-16C, Airman First Class Shatter observed a bolt protruding from the drain hole of engine panel #4409. Instinctively, he knew this was a major discrepancy and promptly notified his flightline expeditor. Assisting Airman Shatter in resolving this problem were Technical Sergeant Bergstrassar and Technical Sergeant Bunda. This team of experienced crew chiefs determined the bolt had come off the T-2.5 sensor on the engine's left side. After a thorough search, it was discovered that a washer was also missing. The aircraft was immediately impounded. After removing all engine access panels and inspecting exposed areas and cavities, they discovered the missing washer as well as a loose A-system hydraulic clamp. Discovery and replacement of these unsecured parts prevented the possible loss of a multi-million dollar aircraft and its pilot.

**PHOTO  
NOT AVAILABLE**

## **FLIGHTLINE SAFETY AWARD OF DISTINCTION**

*A1C Jose M. Marroquin, 355 WG, Davis-Monthan AFB AZ*

While performing preflight on an EC-130H aircraft, tail number 73-1590, Airman First Class Marroquin noticed sparks coming from a cargo compartment light. He quickly assessed the situation and shut off power to the light, but flames had already appeared. Realizing the severity of the situation, Airman Marroquin quickly removed power from the aircraft and snuffed out the flames with clean rags that were on hand. His clear thinking and quick response allowed him to extinguish a fire that could have grown, consuming a multi-million dollar aircraft.

# Fingers and Thumbs

*Mr. Mike Mehalko, HQ ACC/SEG, Langley AFB VA*

**A** spate of mishaps where people lost part of a finger or thumb or suffered serious injury to the same indicates we need to reemphasize safety precautions in handling equipment, moving equipment, or operating power tools. Everyone is at risk, including people who may have to get onto a vehicle to unload articles and individuals who place their hands inside of equipment or weapons systems.

Recently, one of our people sustained serious injuries to the second and third fingers on his right hand while attempting to dislodge a piece of wood from the blade of a table saw. Luckily, initial treatment and emergency surgery saved the fingers. This off-duty injury (the person was working in his quarters) highlights the need to follow prescribed operating instructions and safety precautions whether we're at work or at home. Power tools can be dangerous anytime they're used improperly — on or off duty.

We also need to make sure our folks know not to wear rings when handling or moving supplies and equipment. Even getting onto or off of the cargo area of a truck can be risky if you're wearing a ring. One recent mishap occurred when an individual was getting down from a 1 1/2 ton stake and platform truck. He climbed over the rails and placed his foot on the outside edge of the cargo platform preparing to jump to the ground. While doing this, his ring caught on a projection on the rail and his ring finger was severely injured (degloved). Medical personnel could not save the fin-

ger and it had to be amputated. You would be surprised how many times this has happened over the years. What's better — take the ring off or never wear it again because you lost your finger?

The next mishap occurred when an individual had his hand inside the panel of an aircraft during an engine change. He was apparently checking the engine seal while the other workers were pushing on the engine to seat it. Well, you guessed it; the engine came forward far enough that it crushed the tip of the individual's thumb. Again medical personnel could not save the tip of his thumb, and it had to be amputated. We all need to be working together, and all actions need to be coordinated to avoid hurting each other.

From the lessons learned in these mishaps, it should be clear — safety is an all-the-time, everywhere consideration. Think before you act and follow established procedures. We need to ensure that folks always remove rings or other jewelry that present a hazard to themselves or the equipment. When our people are assigned work details, such as moving furniture or equipment, we need to brief the proper techniques and necessary awareness to accomplish these tasks safely. Supervisors need to enforce the rules. When more than one person is involved in an operation, we need to ensure all actions are coordinated before they are carried out. Medical personnel can perform a lot of lifesaving actions, but they are not miracle workers. Don't ask them to be — think before doing.



# HALLOWEEN SAFETY TIPS



 **HAVE YOUR PARENTS CH**

 **DON'T GO OUT ALONE.**

 **STAY AWAY FROM UN**

 **GO ONLY TO HOUSE**

 **STAY ON WELL-L**

 **WATCH FOR CA**

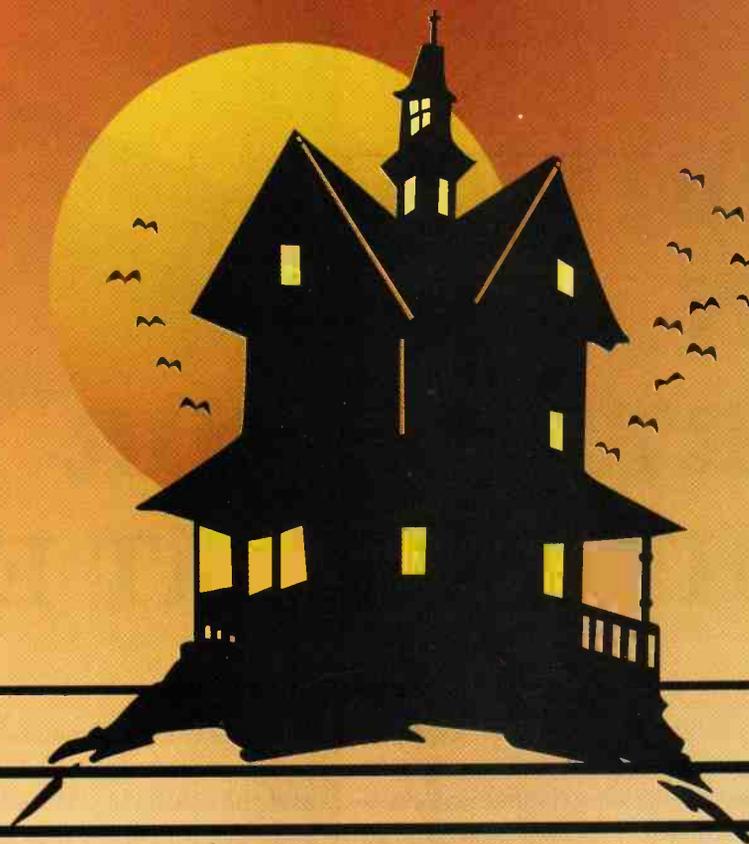
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 **WEAR WHI**

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**EN**



**CHECK YOUR TREATS BEFORE YOU EAT ANY.**

**UNFAMILIAR NEIGHBORHOODS.**

**PLACES THAT YOU KNOW.**

**WELL-LIGHTED STREETS AND IN WELL-LIGHTED AREAS.**

**NEAR**

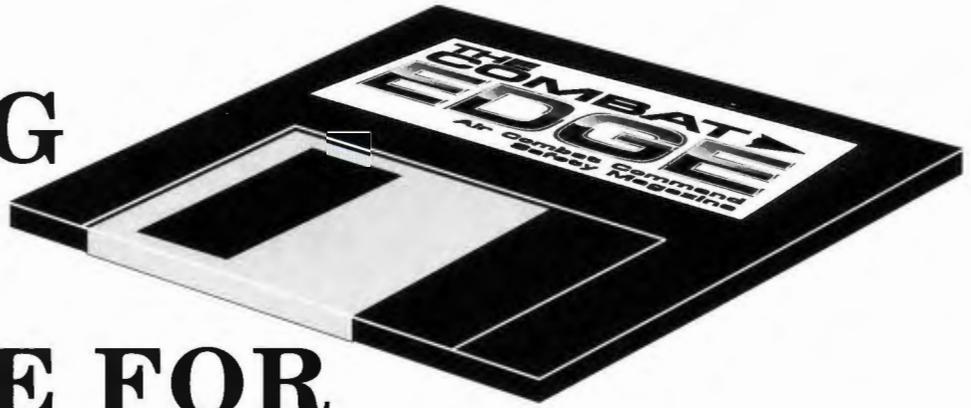
**STREETS.**

**WEAR BRIGHT OR REFLECTIVE COSTUMES.**

**MAKE SURE YOUR COSTUME FITS AND YOU CAN SEE WELL.**

**CHECK ALL LOCAL TRICK-OR-TREAT RESTRICTIONS AND TIMES.**

# WRITING AN ARTICLE FOR THE COMBAT EDGE



*The Combat Edge* is Air Combat Command's mishap prevention magazine dedicated to providing command personnel with flight, weapons, and ground safety information. It is ACC people writing about their experiences for their fellow ACC team members. Your articles are the fuel needed to keep the magazine running and help us fulfill our mission of *mishap prevention through safety education, recognition, and marketing.*

When you write an article for *The Combat Edge*, you're writing for a world-class publication. We print and distribute over 15,000 magazines each month for a reader population estimated at 150,000 people. Our audience includes Air Force, other military services (Army, Navy, Marines), DoD, private industry, and allied foreign national readers. We routinely receive requests from other safety agencies and magazines including foreign magazines and schools to reprint our articles. Writing an article for *The Combat Edge* is truly an opportunity to become "world famous."

Our purpose in life is to educate — to stimulate thought in order to learn from the pages of a magazine rather than from painful personal experience or the pages of a mishap report. From the beginning, the magazine has relied on you — ACC team members and readers — to produce much of each issue. After all, *The Com-*

*bat Edge* is **YOUR** magazine. Only you possess full knowledge of the active undercurrent of ACC's mission, the problems you encounter, and the solutions you reach. *The Combat Edge* is your communications medium to get your ideas to others within the command and the Air Force. The magazine will only be as good as YOU make it through YOUR articles, inputs, and feedback. If you aren't seeing a particular type of article — it's largely because you, or someone like you, haven't written it. We are committed to giving you the best quality product possible, but we can't do it alone — we need YOUR ideas to continually enhance the ACC culture of safety. By working together, we can make ACC safer and more effective!

## **AUTHORS**

Perhaps you've never written an article before. Don't let that scare you. It can be surprisingly easy and the results can be quite rewarding. You don't have to be a professional writer to contribute to *The Combat Edge*. Our authors come from all branches and services, with ranks varying from airman to general, and from civilians as well. Most of them felt as reluctant as you when they decided to write for a magazine. But they had something that needed saying, and they said it. After all, that's really all anyone has to do. Contributions are welcomed from anyone who has something to say about safety. Don't let anything in this guide scare you away from contributing. Please, make the effort.

## **THE STORY**

Writing an article is a lot easier than it may look to you — trust me. I believe that's why a lot of people don't write articles for us; they think it's a "mission impossible." Really, it's not! And once you've done it the first time, the second, third, and so on will be even easier.

How do people talk to each other? They tell stories and compare experiences. In the Air Force, we often refer to these shared experiences as "war stories" or "there I was..." stories. War stories are experiences that have left a lasting impression on you. Everyone has a war story because that's how we learn — by experience.

People like to trade these stories because it gives them a chance to

share experiences and possibly to learn things they haven't encountered before. Sometimes we find ourselves in an emergency situation and our readers want to find out how we handled it. What were we thinking about? What was our first impression? What would we do differently if it happened again? Answering these kind of questions holds the reader's attention. However, you don't have to be flat on your back, running out of airspeed and ideas, or in the middle of a fully loaded munitions storage area surrounded by a raging fire to have a valid war story. Many times we have an emergency or a problem; and although nothing exciting happens, a lesson is learned. These first-hand experiences are extremely effective in teaching, proving a point, or supporting your way of doing things; and everyone can identify with them.

Sometimes we don't have a war story but rather a thought or idea about a better way to do something. Again, share these ideas and thoughts with others. If your thoughts or ideas are safety related in any way, write them down and send them to us. Don't pre-judge the applicability of your article — we get paid to make those calls. Send us the material, and we'll decide if the theme is appropriate for *The Combat Edge*.

### WHAT TO WRITE ABOUT?

Each one of you has a myriad of experiences, personal stories, and insights which you can share with the rest of us. If you're a wing commander, perhaps you can share a great idea which your wing has developed and proven in the field. Senior leaders in both the officer and enlisted ranks can share personal experiences they've had and pass along the "lessons learned" to the younger folks who look up to them.

Here's a quick potpourri of potential areas and subjects where we'd love to see articles:

**OFF DUTY:** Seatbelt experiences, recreational incidents, sports safety, home workshop tips, how to survive the summer/winter/spring/fall at home safely, safety in the kitchen, how to get to and from work without a mishap.

**FLIGHT:** Great ideas on how to keep from being that next flight mishap statistic, flying safely and effectively in the low-level/deployed/air-to-air/air-to-ground/over-water/bad weather/night/on the tanker/m a s s gaggle/on the range/in combat/clear VFR (certainly not all at the same time) environment. How does your squadron pass along the hard-learned lessons from other flying

incidents or mishaps from throughout the CAF? What does your squadron/wing/NAF do effectively that seems to get the word out? What's the role of a good aviator/flight leader/element leader/wingman/flight commander, etc.? What have you done (unwisely or for whatever reason) which got your attention (i.e., scared the wits out of you) that you'd rather not see anyone else have to experience? What's the dumbest thing you ever did?

**GROUND:** What does it take to be a great maintenance person or crew chief? What are the important ingredients to having a good flying jet/Top Wheels vehicle/safe work place? How does your organization ensure the mission gets

done right the first time — safely? What's the role of the maintenance /supply/security/POL/transportation/operators all working together? What sort of experiences have you had in or around the flightline/office/hospital/dining hall/work site that you don't ever want to have again? What happens when complacency, misprioritization, lack of attention to detail, etc., get



the upper hand?

**WEAPONS:** Have you ever dinged a bomb/missile/TER/jammer, etc.? What could you have done to prevent it from happening? What's it take to operate day in and day out safely and mishap-free with munitions — both training and live? How can you ensure the most efficient and successful combat turnarounds? What lessons did some of you pick up on getting the mission done right during DESERT SHIELD/STORM/PROVIDE COMFORT/SOUTHERN WATCH/etc.?

Well, that should give even the most non-creative thinking reader some germ of an idea for a potential article.

### **HOW TO WRITE THE STORY**

Remember, you are writing for people just like yourself. How do you tell a story to your friends, your family, or around the coffee bar? It's the same for the magazine. Most people don't talk about the energy scaling of phase-conjugate solid-state lasers and the ramification on eye protection while operating laser test equipment. So, don't write like that for the magazine.

Figure out what point or lesson you're going to try to relay to the reading audience and build your entire article around that idea. Don't try to write about the entire history of USAF maintenance or every possible sortie that can be flown by a C-130. Just pick one idea and work on that. If we need to broaden it a little, we'll tell you.

Don't be afraid to tell it like it really happened. You get more points for spreading the word than you lose by admitting to an error. Tell the reader why you think you made a mistake. Give a good reason. No one has ever gotten into trouble by writing an article for *The Combat Edge*.

### **INTRODUCTION.**

One good way to get your reader's attention is by sharing a short story or scene which relates to the subject you want to discuss. Whatever you use, there needs to be something to lead your readers into

the article.

### **MAIN BODY.**

This is the area where you go into greater detail about the subject you're writing on. If it's a personal experience, then tell us about it. If you're telling us about a great idea to eliminate flight/weapons/ground mishaps, give us the story "1,2,3, etc."

### **CONCLUSION.**

Finally you come to the part where you summarize what you've been telling the readers and bring the article to a close. Perhaps this is the only time where you actually say what it is that you're trying to get across to your audience. Sometimes it's effective to summarize your entire article in only a short phrase or a single sentence.

Which of the following styles would make you want to read the story?

*The Military Unique Work area is impacted by OSHA standards and their application.*

or

*"Can't Do!" is NOT a PROACTIVE attitude, especially when dealing with safety issues and deficiencies. When a safety deficiency is discovered, there is usually something that can be done to correct or minimize the hazard.*

*Emergencies are very serious and can be dangerous.*

or

*There are three judges that sit on the Aviation Court of Last Resort: Mind, Senses, Hand. If you have an emergency and slowly or quickly enter the court, these judges will determine whether you live or die. One thumbs-down and you'll be sentenced to death.*

Write accordingly — the goal is to communicate!

In summary, if the article logically and interestingly communicates the experience or idea intended and is written in an appropriate tone with acceptable English — send it to us!

### **SUBMITTING ARTICLES**

There are no regulations, supplements, or directives concerning the submittal of articles. We are completely dependent on voluntary submission of articles written by people who care and have something to share with their team members. The magazine, however, has 32 pages each and every month and needs many more stories than we receive. Since emergencies, learning experiences, and great ideas occur on a less than regularly scheduled basis, it is best to submit articles as incidents occur or ideas are conceptualized.

We have no requirement that articles be routed through any OPR or review process other than from the author directly to us. However, be sure to check with your chain of command as to the acceptability of this process. We will look at any article sent to us, no matter where it originates or who writes it.

In planning on specific topics, keep in mind that it takes 2 to 4 months to get an article into print. The hot weather/heat stress article we receive in August doesn't help until the following May.

Drafts should be submitted double-spaced and typewritten. Feature length articles of approximately 1000 to 1500 words or about 4

double-spaced pages normally allow us to do a 2 page layout with artwork. Longer is acceptable as is shorter. The bottom line — use whatever length is necessary to tell your story. When we receive your article, we will send you a letter acknowledging receipt and explaining our article review process. As your article progresses toward publication, you will receive periodic updates on its status. If at any time you have a question concerning your submission, give us a call. Remember to include some information about yourself and your organization.

## PHOTOGRAPHS

Pictures, slides, and drawings are fantastic additions to any story. Photos often make the difference between an article that is read and one that is ignored. They draw the reader's interest. The reader sees the photo and wants to know more. Our magazine is always in need of current photographs to put in the magazine and to use as a reference for illustrations. Please include the photographer's name, if available, on any submissions.

**MISHAPS.** Any photos that depict an actual mishap go a long way in breathing life into an article. In almost all mishaps, an official photographer will exhaustively document the scene. A little coordination on your part can yield spectacular results. We will take care of protecting sensitive information and identities.

**ACTION.** Strive to portray action. Avoid static, overly posed photos. Photograph people actually doing something, not just pretending to do it. Photos for an article do not necessarily have to be literal versions of the words. Small details or unusual perspectives can attract the reader and illustrate a story without being obvious or predictable.

**EXTRA PHOTOS.** We are in constant need of photography of anything that goes on in the Air Force. We like to credit the photographer, so please include his/her name with the submission. A standard PA shot of aircraft, buildings, ceremonies, etc., would be greatly appreciated as well as any candid shots of activity in your organization. If you're cleaning out your photo files, think of us.

**TECHNICAL.** Photos for use inside the magazine can be black and white or color glossy prints at least 5-by-7 inches, as well as 35 MM slides. They must be sharp and clear throughout. Flaws in the print or slide (such as excessive grain) will be magnified in reproduction.

**LIGHT.** Try not to use direct flash. If you cannot shoot in available light, use diffused or bounced flash to avoid the impression that the subject is looming out of the darkness.

**CAPTIONS.** Photo captions explain the action, identify the subject(s), and credit the photographer. Keep captions short — don't repeat information contained in the article. Type or write the caption in double-space; smooth and tape it to the back of the photo. Do not use staples or paper clips. Do not write or mark on the photograph.

**MISCELLANEOUS.** Protect your prints and slides in the mail. Label them as photographic material, and use stiff cardboard to protect them from bending. Include your full name, address, and DSN number.

A stunning picture from your files may find its way to our cover? You'll never know until you send it in. All pictures, drawings, and artwork will be returned, undamaged, after the magazine is published.

## ANONYMITY

The question of anonymously written articles has arisen in the past. We prefer to use the author's name and organization so that they can be appropriately recognized and rewarded for their efforts. However, if you feel anonymity is essential, send us the article along with your name and phone number so we can contact you concerning any questions about the article. When the article is published, your anonymity request WILL be honored and your identity protected.

## REWARDS

Unfortunately, as an official publication, *The Combat Edge* cannot offer monetary rewards for material published. What we can offer is the opportunity for you to make our safety culture better. By sharing your knowledge you make a valuable contribution to those who need your information to do their jobs more safely. It may sound trite, but your input — whether a long feature or a simple tip — might just save someone from injury. It might even save a life.

If you still have questions about your article or need to refine your approach to a subject, pick up the phone and call the editor at DSN 574-3658. If I can't give you at least 4 different ways to approach your topic or some suggestions for articles, then I'm not doing my job. Send **YOUR** articles to:

Editor, *The Combat Edge*  
HQ ACC/SEP  
130 Andrews St Ste 301  
Langley AFB VA 23665-2786

Telephone: (804) 764-3658  
FAX: DSN 574-6362  
E-Mail: beardn@hqaccse.langley.af.mil

# ACColades

QUESTIONS OR COMMENTS  
CONCERNING DATA ON THIS  
PAGE SHOULD BE  
ADDRESSED TO HQ ACC/SEF,  
DSN: 574-7031

	TOTAL			ACC			ANG			AFR		
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CLASS A MISHAPS	4	16	19	4	11	9	0	4	9	0	1	1
AIRCREW FATALITIES	1	10	8	1	3	6	0	1	2	0	6	0
* IN THE ENVELOPE EJECTIONS	1/0	12/0	15/1	1/0	9/0	4/0	0	3/0	11/1	0	0	0
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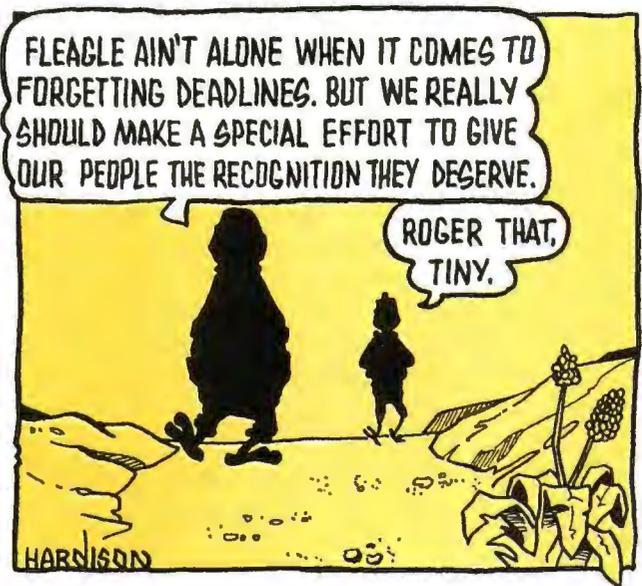
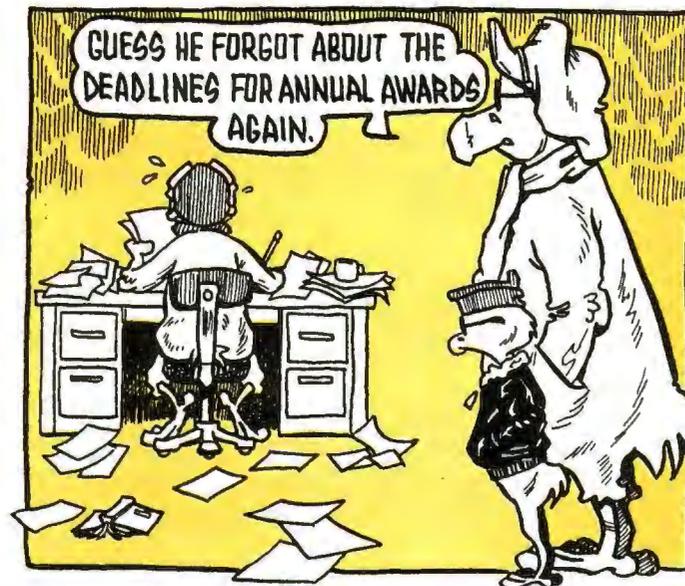
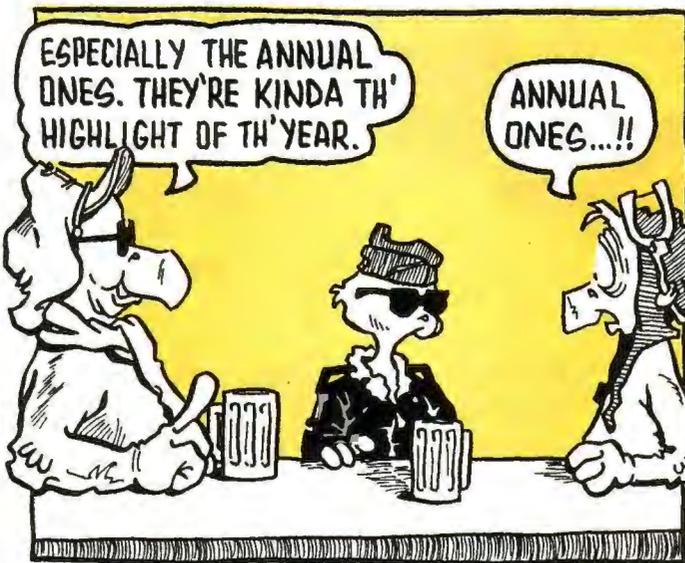
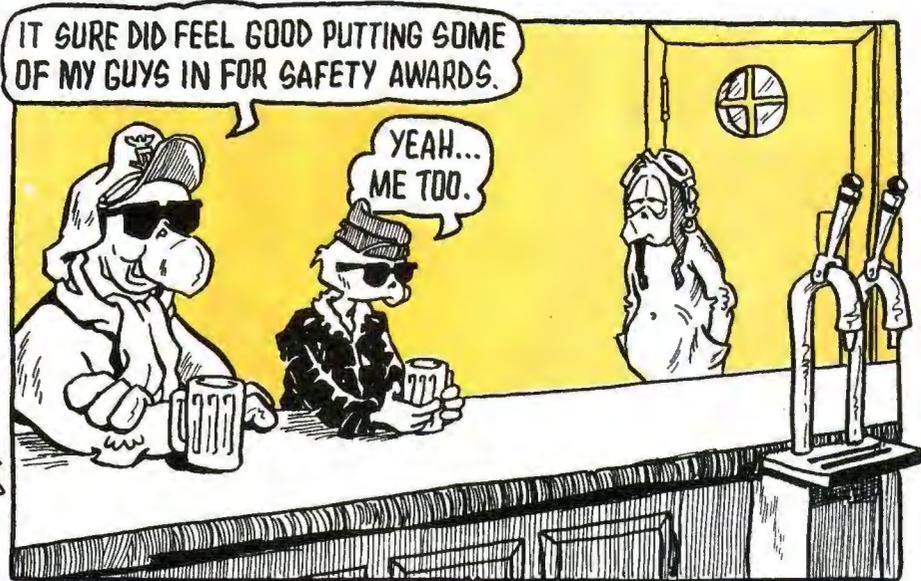
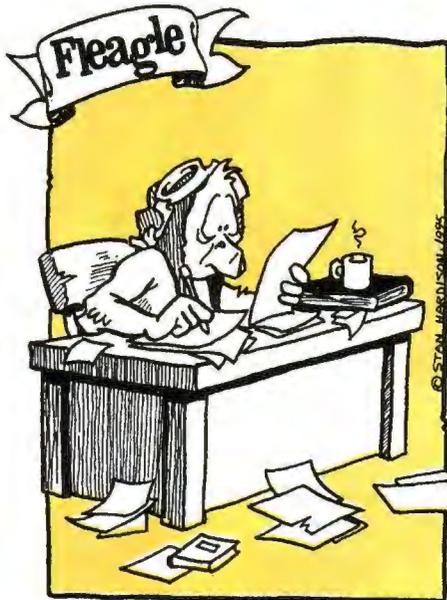
\* (SUCCESSFUL/UNSUCCESSFUL)

## CLASS A MISHAP COMPARISON RATE

(CUMULATIVE RATE BASED ON ACCIDENTS PER 100,000 HOURS FLYING)

	FY 94	0	1.1	1.5	1.8	2.4	2.4	2.0	1.7	1.7	1.8	1.8	1.9
<b>ACC</b>	FY 95	2.1	1.1	0.7	0.6	0.9	1.6	1.6	1.7	1.6	1.6	2.3	
<b>8 AF</b>	FY 94	0	0	0	0	0	0	0	0	0	0	0	0
	FY 95	0	0	0	0	1.8	1.5	1.3	1.1	1.0	0.9	1.6	
<b>9 AF</b>	FY 94	0	0	0	2.1	3.3	4.0	3.2	2.8	2.2	2.1	1.9	1.6
	FY 95	0	0	0	0	0	1.2	1.0	0.9	0.8	0.7	1.9	
<b>12 AF</b>	FY 94	0	0	2.0	1.6	1.3	1.1	.9	.8	1.4	2.0	2.4	3.1
	FY 95	6.5	3.3	2.3	1.7	1.4	1.2	2.0	2.6	2.4	2.1	2.6	
<b>DRU</b>	FY 94	0	14.9	8.6	6.7	11.2	9.5	7.9	7.0	6.3	5.7	5.3	4.6
	FY 95	0	0	0	0	0	5.3	3.7	3.5	3.3	5.6	5.6	
<b>ANG</b>	FY 94	0	1.9	2.6	2.2	2.7	3.7	3.2	3.4	3.5	4.0	3.6	3.3
	FY 95	0	0	0	0	0.8	0.7	0.6	1.0	1.4	1.6	1.5	
<b>AFR</b>	FY 94	0	0	0	0	0	0	0	0	0	1.4	1.3	1.3
	FY 95	0	0	0	0	0	0	0	1.3	1.2	1.1	1.0	
<b>TOTAL</b>	FY 94	0	1.2	1.7	1.8	2.3	2.7	2.1	2.1	2.2	2.4	2.3	2.3
	FY 95	1.3	0.7	0.4	0.3	0.8	1.1	1.1	1.5	1.4	1.5	1.9	
MONTH	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

\* (HOURS NOT AVAILABLE)





*Maj Jay D. Bolan  
125 FW/SEW  
Jacksonville FL*

**A** student brings a rifle grenade from a local Army installation to a high school in Georgia. While being handled, it detonates in the school's band room, seriously injuring several students.

An Air Force member receives an "inert" Soviet anti-personnel mine from a foreign official. While showing the item to others, it was dropped, causing minor injuries to two people. An investigation revealed that the item was only partially safed — it still contained a live primer.

These tragedies serve as grim reminders of how dangerous the trophies we bring home can be. Such events are so familiar that, in the case of the high school explosion, I could describe the chain of events to my wife after hearing only the initial radio news segment that an explosion had occurred with "dud" military ordnance brought to school. Am I a genius? No. After 16 years of reading explosives mishap reports, the story is appallingly familiar.

Equally tragic is the fact that Air Force, Air National Guard, and AFRES personnel will continue to be injured or killed by munitions, including small arms ammunition and training munitions because:

- **THEY IGNORE SUPERVISORY WARNINGS, TECHNICAL TRAINING, SAFETY POSTERS AND ARTICLES LIKE THIS ONE.**
- **THEIR PRIDE CONVINCES THEM THEY CAN "HANDLE" (OR DISMANTLE) OLD ORDINANCE.**
- **THEIR FEAR OF HOW DANGEROUS MUNITIONS REALLY ARE HAS ALL BUT EVAPORATED.**

What are some lessons learned from the souvenir mishaps we can take to heart, and, for those of us who are parents, also take home to the dinner table and teach our children?

# SOUVENIRS.



First, don't touch or pick up anything that looks like an explosive device; a blasting cap, flare, grenade, shell, etc. It's not yours to begin with, and you have no business fooling with it. You can't get hurt if you don't play with it and if you avoid those who do. If you find something that looks like an explosive, call for help.

Second, souvenir munitions are often passed along to others who inadvertently become the victims. Rounds left in garages, attics, basements, or desk drawers can't be watched 24 hours a day. People, especially children, gain access to them. No one would pick up a discarded, lost or inactivated round if they thought someone they loved would be seriously injured later. Yet this happens again and again. If anyone offers you a chance to see or take the latest round they found on base or during a deployment, head in the other direction!

Third, don't assume "souvenir" ammo is a dud or a training round. The fact that somebody else thinks it's harmless is no

guarantee! Who trained him or her on how to identify inert munitions anyway? Many people have been killed or maimed with so-called "dud" or "safe" ammo.

Fourth, the age of the item is no guarantee that it's safe. If I remember correctly, the rifle grenade in the high school incident was over 10 years old. As we say in the safety business, it still "functioned as designed." In fact, munitions often become more unstable with age and are more prone to explode when they're handled. Unexploded shells fired in World War I at Verdun, France, continued to cause casualties among local farmers and curious tourists more than 60 years after the battle!

If we use a little wisdom, common sense and humility, it's easy to stay safe and alive. People who care about you, and people whom we care about, will be better off as a result. ■

# SUICIDAL WILDLIFE

# STREET GANGS

*TSgt Bob Meloche  
5 CCG/SE  
Robins AFB GA*

**T**his is the time of year when everyone starts getting concerned about winter driving conditions and adverse weather. This is all well and good. However, the one thing we cannot ignore, regardless of the season, is the ever present danger posed by suicidal wildlife street gangs.

We've heard all the hoopla surrounding gang violence problems across the country, but even "Geraldo" hasn't dared to broach this controversial subject. Some of you have had encounters with these woodland hoods, and know the portrayal they received in movies like *Snow White* and *Bambi* was only Hollywood hype and hoopla. I've had the chance to talk to some of the victims, and here are a few of their grisly stories.

"Bubba" (not his real name), age 32. "I was driving down the road, minding my own business, when this cute little deer went scampering across the road in front of me. I slowed down and watched the little creature as it entered the woods, and I thought everything was fine. Suddenly, I heard a loud crash and

lost control of my car. As I skidded to a halt in the gravel, I saw a very large deer jump up and run into the woods. It seems this deer ran into the side of my car as I was watching the little one run into the woods. I don't mind telling you, I was scared! Later, I found out there was about \$1,000 damage to my car."

It seems Bubba was a victim of the infamous "Bait and Switch," where a decoy deer is sent across the road to distract a driver while a 300 + pound mega-deer waits for just the right moment before blind-siding you. Here's another case-in-point.

"Eunice" (not her real name), age 26. "I was driving along, when I saw a deer run out onto the road. I was alert and ready for it, and I swerved hard to the right so I could miss the deer. I missed it alright, but I succeeded in hitting three trees and doing almost \$2,500 damage to my car in the process."

Eunice wanted to be a good person and didn't want to hurt the "cute little deer." She got what she wanted and missed the deer. However, she also succeeded in hitting three perfectly innocent trees and crunching her car. Would the deer have caused less damage? Maybe, maybe not. However, most insurance companies count an animal strike under the "comprehensive" portion of your policy, not the collision section. The point is, the suicidal wildlife street gangs once again succeeded in their mission to make the roads you take for granted a challenging place to drive.

Take the case of one poor soul who was returning home after a long road trip. He was so excited about seeing a whole herd of deer in the vicinity of his house that he dropped his car into reverse so he could pick the deer up in the headlight beams. This worked amazingly well, and everything would have been fine if he hadn't forgotten he was towing a trailer. You know, it's amazing the amount of damage a trailer can do when it's slapped against the side of the car. This is a case where the "sweet innocent deer" had an adverse effect on someone's judgment.

Some people believe "Deer Whistles" placed on the bumper of their vehicle will scatter the deer to the four winds and keep them clear of the road. "Cletus" (not his real name), relates an incident where the deer whistles so enraged a deer, it ran directly in front of his

truck. He struck the deer and launched it into the air. While airborne, the deer performed the infamous "Kamikaze Kilroy" dive (with three and one half twists, in the full layout position), before coming to rest on the windshield of a vehicle in the oncoming lane. Now as anyone vaguely familiar with the laws of physics can tell you, if you launch a 250 pound deer 30 feet in the air, it doesn't just "come to rest" on the windshield. It actually lands in the lap of whomever happens to be unlucky enough to be driving the vehicle. This tends to upset that person quite a bit. We'll obtain a written statement as soon as they're allowed to handle pencils and other sharp objects again.

When dealing with the suicidal wildlife street gangs, keep a few simple things in mind:

- \* As rutting and hunting seasons approach, the deer become more restless and tend to be "on the move" more. It's inevitable they'll be crossing the roadways more frequently.

- \* Deer do not care if you're in a 2,000 + pound car and they have no means of protection. Given half the chance, they'll run straight in front of, into the side of, or across the top of your vehicle.

- \* Deer tend to follow the same path back that they started from. Simply put, if you see some deer on either side of the road, you have no guarantee which side they started from, or if they're all headed the same direction. Slow down and allow them to decide where they're going.

- \* There are three things you can do that will help you in your encounters with deer. They are slow down, slow down, and slow down. This gives you more time to think and react.

- \* There may be times when you have to make a split second decision to either hit a deer or steer for the trees. This may sound heartless, but a deer has a lot more "give" to it than your average tree. Fight against instinct and don't aim for the trees.

Despite the slant in this article, the deer aren't really out to get you. However, they do add another exciting dimension to driving on our roads and highways.

Take care and happy motoring. ■

# OSHA

## *Myths* and Half-Truths in Safety

*MSgt Gary Reniker  
442 FW/SE  
Whiteman AFB MO*

**MYTH # 1:**

*OSHA has 140 regulations covering ladders.*

**REALITY:** I've heard this one for years. I always thought it was probably an exaggeration. Actually, it turns out that there are really only 4 regulations regarding ladders. The people who say 140 are trying to count every tiny paragraph of the regulations as if they were each a separate regulation. The reason why ladder regulations are so important is that falls from elevations in construction account for one-third of all on-the-job fatalities.

**MYTH # 2:**

*OSHA thinks bricks and sand are harmful, and the OSHA Hazard Communication Standard requires that they have Material Safety Data Sheets (MSDS).*

**REALITY:** The answer to this one is a little more complicated. It is true that in some circumstances brick and sand are considered to be harmful by OSHA, and that the Hazard Communication Standard requires an MSDS informing employees about the hazard. But, the hazard is not that a brick may fall on your toe. When bricks are cut with a high-speed tool, they release crys-

talline silica, a fine powder that causes lung disease and possibly cancer. So, if a worker is going to generate crystalline silica dust, the standard says the employee has the right to know that he or she is being exposed to a hazardous substance.

The same is true with sand. We don't think of sand as a harmful substance. But, if sand is used for abrasive blasting, crystalline silica dust is generated. Therefore, the Hazard Communication Standard applies.

OSHA statistics show why this is not just a theoretical risk. In 1988, some 300 people died from silicosis, the lung disease associated with exposure to silica dust.

**MYTH # 3:**

*The Bloodborne Pathogens Standard prohibits dentists from giving children their extracted teeth back to take home and put under their pillows.*

**REALITY:** This safety myth has been making the rounds recently and grew out of OSHA's Bloodborne Pathogens program. This standard was designed to protect workers, primarily healthcare workers, from developing diseases as a result of coming in contact with contaminated body fluids.

The standard mandates a number of safeguards to prevent transmission of the HIV virus, which leads to AIDS, and the virus that causes Hepatitis.

Dentists were particularly upset about this new OSHA standard, and for some time the word going around was that OSHA had killed the tooth fairy. This is just plain wrong. OSHA does not prohibit a dentist from giving children their extracted teeth for the tooth fairy. I know that's a big relief to all of you.

**HALF-TRUTH:**

*The Chief of Safety is responsible for safety.*

**TRUTH:** Line management is responsible for safety. Those people who plan, lead, organize, and control the unit's mission control the safety function of the unit. The Chief of Safety is the in-house advisor, facilitator, and consultant to the unit leader who must make safety happen!

**HALF-TRUTH:**

*Unsafe personnel acts are responsible for 80 - 90% of all mishaps.*

**TRUTH:** Management failure is responsible for 99% of all mishaps. Practically every one of them is the result of inadequate management action, inadequate worker or supervisor training, inadequate procedures and work conditions, and inadequate enforcement of safety rules and policies. These are management failures. A few mishaps are the result of "Acts of God" or deliberate employee actions, but by-and-large mishaps can be prevented with proper management action.

**HALF-TRUTH:**

*To improve safety, improve safety awareness.*

**TRUTH:** To improve safety, improve management and personnel safety. The ABC's (attitude, behavior, culture) for personnel

safety are very important; but to have a serious impact on improvement, start at the top. Management will have as good a safety program as they want, and as poor a safety program as they will allow.

**HALF-TRUTH:**

*Safety first!!*

**TRUTH:** Highest quality, lowest cost production (or service) without personnel being injured on the job is your goal. Safety in any organization never has been first and never will. Every unit is in the business to meet its mission so as to provide a service to the public. Every unit's goal should be to provide the highest quality, lowest cost production, and service without injuring people. However, from the worker's viewpoint, there is nothing more important than safety. The worker must think, "I'm not going to risk my finger, my hearing, my life to get this job done." When personnel develop these attitudes and beliefs and practice them, safe production (or service) will be first.

**HALF-TRUTH:**

*Safety is a cost control function.*

**TRUTH:** Safety is a loss control function. Many unit safety managers today have been placed in the position to reduce costs. This is a long-term goal. The safety manager should be recommending to management how to manage risk and prevent personnel from being seriously injured or becoming sick on the job. The safety manager should also be recommending to management how to comply with regulations to both prevent injury, illness, and penalties. These actions will cost money and managers need to understand that. But safety managers must educate management that in the long run risk management and loss control are cost control functions. ■

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# FIRE Plan Your Escape! WON'T WAIT

**F**ires in American homes claim more than 4,000 lives every year. It could happen in your home, to you and your family.

A serious home fire is a deadly combination of heat, blinding smoke, and toxic gases. Gases produced by fire can kill sleeping victims long before flames reach them. Fire can produce temperatures over 1,000 degrees Fahrenheit in just minutes! And as temperatures rise, flashover can ignite an entire room virtually instantaneously.

You should try to eliminate fire hazards from your home. The best time to stop a fire, after all, is before it starts. But if a fire does break out in your home, there is one key to survival: immediate escape!

To be among the survivors, make sure that you have smoke detectors in your home to give you the earliest possible warning of a fire.

Next, plan precisely how you and your family will escape if fire does occur.

Finally, practice your plan by holding fire drills at least every 6 months.

Also, consider home automatic sprinklers for complete fire safety protection.

**Will you be warned in time to escape?**

The majority of fatal home fires start at night while people are asleep. So every home needs smoke detectors to wake people up before they are trapped or overcome by smoke. Almost every day, a smoke detector saves somebody's life. With smoke detectors, your risk of dying in a

home fire is cut in half!

You need smoke detectors outside each sleeping area and on each additional level of your home — including the basement.

Be sure to test detectors regularly. Replace the batteries when the detector emits a warning chirp or at least once a year. Warn everyone in your household to leave working batteries in smoke detectors — resist the temptation to borrow them for other purposes.

Smoke detectors are inexpensive protection. Follow the installation instructions carefully.

#### **Make an escape plan.**

When a fire occurs, there's no time for planning. So, sit down with your family today, and make a step-by-step plan for escaping a fire.

Know two ways out. Draw a diagram of your home, showing every door and window. Plan two ways out of every room, especially the bedrooms. Then walk through each escape route, checking for barriers. Make sure everyone can unlock all locks and open all windows and doors quickly, even in the dark.

In an apartment use stairways to leave the building. Never use an elevator during a fire; it may stop between floors or even take you to the floor where the fire is burning!

In a two-story house, if you must escape from a second-story window, be sure you have a safe way to reach the ground. Make special arrangements for small children and people with disabilities.

Get out fast! In case of a fire, don't stop for anything. Do not try to take possessions or pets.

Just get out. Call the fire department from a neighbor's phone after you are out.

Don't go back, no matter what. Make sure everyone in your family knows that once they are out, they must not go back for any reason. If people are trapped, fire fighters have the best chance of rescuing them. Call the fire department after you escape. Everyone should gather at one meeting place outside, preferably at the front, where the fire department will arrive. Each family member should know how to call the fire department from a neighbor's home.

#### **Practice your plan.**

At least twice a year, have a fire drill in your home. Appoint someone as the monitor to sound the alarm and make sure everyone participates.

The majority of fatal fires occurs when people are sleeping. So to start the fire drill, go to your bedroom, close the door, and wait for the monitor to sound the alarm.

Make your exit drill as realistic as possible. Practice both escape routes. Pretend that certain exits are blocked by fire, that there are no lights, and that the hallways are filling with smoke.

Remember, a fire drill is not a race. Get out quickly but carefully!

#### **Be ready for hazards on your way out!**

Test every door. Before opening a door, make sure there's no fire on the other side. Kneeling or crouching at the door, reach up high and use the back of your hand to touch the door, the door knob, and the space between the door and the frame. If any of these feel hot, use your second way out.

If everything feels cool, brace your shoulder against the door, and open it carefully. Be ready to slam it shut if heat or smoke rushes in.

As you leave, close all doors behind you. They can slow down the spread of fire and smoke.

Crawl low. Smoke contains deadly gases and is hot, so it will fill the room from the top down. If you encounter smoke using your primary exit, use your alternate route instead. If you must exit through smoke, the best air will be several inches off the floor. Get down on your hands and knees, and crawl quickly to the exit.

If you are trapped, close doors between you and the fire. Stuff the cracks around doors and cover vents to keep smoke out. Wait at a window, and signal for help with a flashlight, if you have one, or by waving a sheet or other light-colored cloth. If there's a phone in the room where you're trapped, call the fire department and tell them exactly where you are.

#### **Don't delay — fire won't wait.**

If a fire does break out, you need early warning from smoke detectors, and you need to know how to get out without delay. Practicing drills will help your family get out quickly and safely when there is no time for mistakes! ■

*Editor's note: Carbon monoxide detectors are also life savers. Everyone who uses carbon monoxide producing equipment should install one to detect this silent killer. We highly recommend them. If you have any questions, contact your local fire department or Safety office.*

