

The Combat Edge October 1997

THE COMBAT EDGE

October 1997

"Gearing Up for Winter" page 4

The Combat Edge

AIR COMBAT COMMAND
SAFETY MAGAZINE

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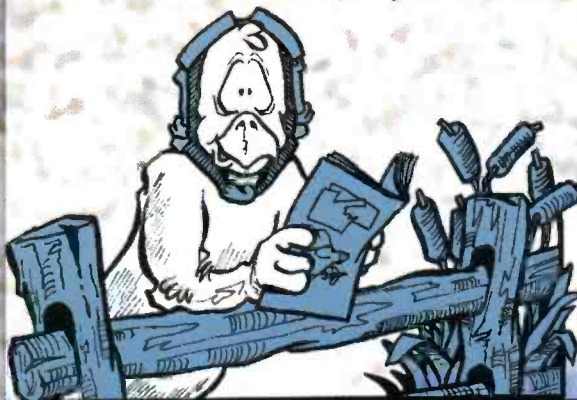
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WHERE'S FLEAGLE?



If you're looking for Fleagle, you will notice that he is absent from this issue. Fleagle's creator, Mr. Stan Hardison, is currently recuperating from open heart surgery. The ACC Safety staff wishes him a rapid recovery. Fleagle should be back on board next month, soaring through the beautiful autumn skies or dealing with falling leaves as he usually does this time of year.

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Langley AFB VA

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Accent on Safety

Now that the birthday candles have been blown out and the celebrations have ended, it's probably a good time to reflect on just what "being 50" means to the Air Force. Although this remains somewhat conjecture since I'm not quite there yet myself, I feel fairly confident in doing this 'cause I'm a whole heckuva lot closer to it than the majority of you readers.

So, for starters, how should we act? Well, I think this one's obvious. We should act like we've got 50 years of experience to temper our judgment and to guide us when we're faced with tough choices. Our experiences, both bad and good, should have been ones we learned from, so the trick is to use that learning in order to prevent repeating our mistakes. In fact, we have written reams and reams of documents that reflect those experiences; they're called Policy, Planning Directives, Instructions, Multi-Command Manuals, Technical Orders, Flight Manuals, and a host of related Operating Instructions, Checklists, and so on. One of the things about having been around for over half of the Air Force's 50 years is that, to a large degree, I can tell you the name of the guy who died to get something written into one of these documents. Whether you agree with them or not, our rules and procedures got the way they are "the hard way." It seems like, at age 50, we'd be smart enough to respect those who have gone before us and abide by the rules they wrote with their sweat and their blood.

It also seems like that at 50, we'd have a healthy amount of skepticism. You know, in addition to all those things we have written down as "procedures," there are lots of things some folks like to call "techniques." Personally, I call them WOM's, or "Word Of Mouths," and, until you know better, you ought to just call 'em "Trouble, with a Capital 'T'." These things are less formal, often undocumented in any form, and usually spread like a computer virus without a traceable point of origin. SOME of these techniques are really first rate and are destined to make their way into the formal documents. Usually these are the ones with a known source and they end up wearing that guy's moniker – the Immelmann turn comes immediately to mind. Others seem to come out of the haze and fog of imperfect memory clouded by recollections from "something pretty much the same, just different." Whoa! Time to act 50. Give a little chuckle, rub your chin thoughtfully, smile very benignly, and answer, "I'll think about it." Then go and really think about it, get some opinions from folks you trust, check the books to see what they say, and don't bet your life on some idea that another guy might have pulled out of thin air.

The last thing I think 50 means to us is that we need to have a sense of adding to our legacy. This isn't just writing more history, although that's certainly a part of legacy. This isn't just "making the world a better place," but that, too, is certainly part of it. Nor is mentoring the next generation our only responsibility in leaving a legacy. When I look back on our first 50 years, the common theme I see to our "golden legacy" is that we have made a tradition of making progress. We've never let setbacks be more than temporary, and we've never lost sight of our next objective. When reaching a goal, we documented the lessons learned, gauged the next goal, and then struck out for it. I think this has been the secret to success for our first 50, and we need to continue it to create our legacy for the next 50 years--our "boundless future."

Congratulations on passing 50, Air Force! Keep "Aiming High." ■

*Colonel Turk Marshall
Chief of Safety*



*Major Lori J. Pulaski
HQ ACC/SEE
Langley AFB VA*

GEARING UP FOR WINTER

Fall is a great time to start gearing up for the winter season. But while you are planning that ski trip or looking forward to the holidays, plan your flying as well.

It was a dark and gloomy night (I've always wanted to use that line!). Thin wispy clouds scudded across the full harvest moon, orange tinted in the evening sky. Gaunt and barren trees with limbs reaching over the roadway created a dark tunnel where the faltering flame from the lantern in my quivering hand was the only light. A fitful breeze pushed withered leaves fallen from the trees into my path. A gentle crackling and rustling, my footsteps were the only sounds I could hear.

Sounds like the start of a story you'd tell around a campfire, doesn't it? I love October and the fall season. Crisp, cool

days, the smell of woodsmoke from wood burning stoves, football games, and good food — it's a great time of the year. But it also is a signal for transition from "fun in the sun" to wintertime activities. Many of us look forward to winter activities — skiing, ice skating, sledding — but how many actually look at preparing for the cold weather? Fortunately, we get to see a precursor of the cold while we are still in the fall season.

I know I've seen some fall seasons go by where I haven't even needed a jacket. And yet, I remember times when I was younger and the first snowfall came around Halloween! In fact, I remember always getting a costume too big in the late summer that always seemed to have enough room in it to wear my winter coat — which I usually needed!

Now I'm sure you're getting ready to tell me that you've never gone out without being appropriately dressed for the weather. But here's a question — do you plan for changes in the weather? The fall season is normally a time for the weather to vary with more rain or snow and less sun. How many times has it been comfortable outside, and then a strong cold front moves through? Maintainers, have you ever been out on the flight line or in the hangar without a jacket or gloves (or rain gear) and the weather turns ugly? And how about you aircrew members? Have you ever had a takeoff with 80 degrees outside and come home with it 40 degrees and raining? Fall is the best time to start pulling out that winter gear, find the thermal underwear, brush-off the mukluks ... okay, you don't have to do the mukluks. My point is this: **plan ahead.**

Another item to consider with the fall season is your procedures. What are the icing/de-icing procedures for your particular aircraft? Does the aircraft need to warm-up prior to flying? How about the avionics — does it take longer to get them up and running? You may want to consider stepping to the jet earlier than normal. How about the maintenance troops working on the jet — are they rushing to get the job done because it's cold, raining, or snowing? Have they missed any steps in the TO? Do your procedures change at all with the transition from summer to winter?

What are you going to do when, during an approach into the "home-drone" after some fantastic aerial maneuvering, you hear "the field is closed"? Do you have the charts and approach plates for a divert? Speaking of which, where ARE you going to divert to? Did you read up in GP (General Planning) or the IFR supplement about your specific divert base? And I know that you are now thinking, "I already do that in mission planning." Outstanding! Ask yourself some questions about your divert options. Do you really know where the field is in relationship to the work area, MOA, or range? Do your wingmen or crewmembers have a task in case of divert? Who's handling the radios? What altitude will you fly? What's the plan?

Fall is a great time to start gearing up for the winter season. But while you are planning that ski trip or looking forward to the holidays, plan your flying as well. Don't wait until you are on final before you realize you're not ready to land or divert because of the weather or any other factor. Don't let the Headless Horseman come upon you while traveling the dark and lonely roads of fall. Know your procedures, think smart, and fly safe! ■





They're Heere!

*Lt Col Ezequiel Parrilla, Jr.
HQ ACC/SEF
Langley AFB VA*

I was headed for a 90-day TDY in South America; and, admittedly, I was already looking forward to different duties and surroundings. The interim stops held promise of new experiences. As the 727 rotator banked up on its base turn, I got my first glimpse of Howard AFB. On a sea of dark green, a light green island stood out, cut by the grey ribbon of a runway. As we rolled out on short final, I could see a beautiful beach under us with numerous concession stands and a large number of seagulls flocking for scraps. During taxi, I could see that this was something different from stateside; what with the top half of the control tower jutting out from the jungle above the airfield and a tall mountain in the near background. A small hill on the opposite side from the tower served as a hover point for many hawks (at least I think that is what they were). Major Pete Windler and Mr. Gene LeBoeuf from the USAF Bird Aircraft Strike Hazard (BASH) team have repeatedly tried to teach me the finer points of bird ID during our BASH Staff Assistance Visits (SAVs); but as an old flight com-

mander of mine used to say, "I have an excellent memory — it's just very short." That's another story.

As we walked out of the jet, I could hear and see more birds in the surrounding tree line. This was my first time in Panama, and I admit I was in a "turista" mode and found it all very attractive. However, when I returned to Howard AFB 6 months later to conduct a BASH SAV, the same sights drew a rather different reaction. Since most of the birds migrating between North and South America fly within 30 miles of Howard twice each year, it should be no surprise that they have the most severe bird hazard in ACC. Although the wing has a particularly strong BASH program, the location marks it as one where all aircrews need to keep bird hazards on their minds and not let the beauty of the surroundings lull them into letting their guard down. This is even more true during the last week of October and first 2 weeks of November, the peak migration season for soaring raptors.

Conservation efforts have been success-

ful enough that we see an increasing number of birds throughout the world. Good news for mother nature maybe, but bad news for those engaged in flying operations. These birds may now present a threat in places where they were too few in number to worry about before. At the same time, some places where they were always a threat have become even more difficult to contend with. This makes it critical for aircrews to be fully aware of the threat.

What can you do to find out if there is a bird threat? There are several different sources of information available.

FLIP - AP (Flight Information Publication-Area Planning) /IFR (Instrument

they do not have one for your specific area of interest, the USAF BASH team may be able to help.

NEXRAD is the name of the new weather radar which is operational throughout the US and has the capability to track birds. We are investigating the possibility of using this technology to monitor migratory bird movements and generate near real-time forecasts. The use of radar to track bird formations also holds a lot of promise in more accurately locating migratory routes and providing trend information.

Birdstrike Data. Unit safety offices provide the USAF BASH team with

Conservation efforts have been successful enough that we see an increasing number of birds throughout the world. Good news for mother nature maybe, but bad news for those engaged in flying operations.

Flight Rules) Supplement. There has been a concerted effort to improve BASH descriptions in FLIP Area Planning and the IFR supplement. Many bases have a lot more BASH information than they did a few years ago. Next time you are perusing either of these not-so-quick-reads, take a look at what they say for your base. Do they reflect what YOU would like to know if you were flying to the base for the first time? Is it specific enough to allow you to take actions to minimize the risk?

BAM. The Bird Avoidance Model (BAM) has information on potential threat areas. These should be available from your safety office or the unit's long range planners. If

birdstrike data on a monthly basis. This can give you historical knowledge of times of increased birdstrikes. However, this is just one piece of the puzzle. You should not take this data by itself and say, "There are no birdstrikes during this time of the day at base X, so I will go there then, instead of later in the day." It could very well be the reason for no birdstrikes at that time is the situation is so bad that nobody is flying; therefore, there are no birdstrikes. This is one of the reasons that during our BASH SAVs we recommend tracking of moderate and severe bird watch conditions. This is one of the tools we saw used effectively at Howard. This tracking can be a capable

predictive tool; and, when combined with birdstrike data, it will give you an even better picture.

Unit POC. The safety, airfield management, and natural resources offices have reps to the Bird Hazard Working Group (BHWG) who should be fairly up-to-speed on threats at the airfield and can provide information or point to the right source.

Supervisor of Flying (SOF). If en route and in doubt on what the actual situation is, talk to the SOF. He probably has a good feel for the problem and may be able to give you some options.

One question we are often asked is, "What makes a good BASH program?" This is one of those questions that can best be answered with — "It depends." The specific actions that can work great at one location may be a waste of time at another. However, two things seem to be a common link in all the good programs we have seen — *Attitude and Communications.*

Although BASH programs laid dormant at many bases until recently, birdstrikes are an ongoing problem that have cost too many lives and too much money. In those cases where BASH is looked at as the latest "Flavor of the Month," that will go away soon, or at least after the next BASH SAV, you usually find hidden problems that eventually surface. Those bases that think, "We do not have a lot of birdstrikes, so there is no need to worry about BASH," too often create a BASH problem by inaction or lack of coordination in local construction or base beautification projects. In those units where BASH is looked at as an aspect of day-to-day operations, an effective program is more likely to result.

Communication is a big factor in an effective BASH program. There are many players involved. Safety, natural resources, airfield management, pest management, security forces, golf course management, maintenance, supervisor of flying, and schedulers are among them. The Bird Hazard Working Group provides an executive group that includes wing leadership. One idea favored by Major Tom "Duck" Donalds, ACC/SE BASH POC, is to have "worker bee"

meetings periodically among POCs from the different organizations, working out the details to accomplish the goals set by the BHWG. This allows BHWG meetings to go smoothly and helps the meeting to stay focused on the key items, making it more effective. Some other good ideas we have seen include:

- **Tracking of increased bird watch conditions.** I mentioned tracking this before, but it also helps to track the cause and area affected. If you get a problem in the same area, there may be something you can do to keep the birds from being attracted to that specific area.

- **Tracking of harassment team responses.** How often are they needed and what are they responding to (Coyotes, Deer, etc.)? How effective are they, both in response time and in taking care of the threat?

- **Visiting neighboring airfields and discussing what they are doing.** Are they scaring birds and wildlife towards you or vice versa?

- **Using an Animal Damage Control (ADC) expert.** In addition to getting advice from one used by local government, an option may be to contract one. This provides an expert working full time on the problem.

- **Tracking birdstrikes.** Tracking birdstrikes both in the pattern and in low level routes is a valuable source of threat data.

- **Active participation of the SOF.** This is the individual who will probably have the best access to information on what is currently happening on the flight line and what is scheduled to take place.

The fall migration season is rapidly approaching as this issue goes to print. More than at any other time of the year, we need to make sure we are aware of when and where our feathered friends are likely to be and stay out of their way. ■

Got any good BASH ideas? Give us a call at DSN 574-8953 or e-mail us at parrille@hqaccse.langley.af.mil or donaldst@hqaccse.langley.af.mil.

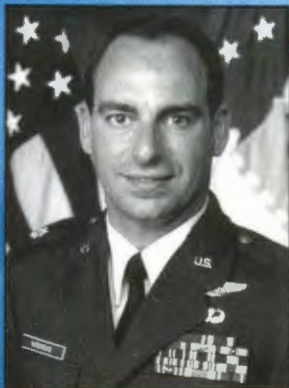
FLY SAFE!

NEW FORMAT for AWARDS

AWARD		NOMINATION FOR AWARD		AWARD PERIOD	
SAFETY CAREER PROFESSIONAL OF THE YEAR		CATEGORY		1 Oct 96 - 30 Sep 97	
RANK/NAME OF NOMINEE (Last, First, Middle Initial)		MPF: 1 MSS/DPM, 45 Nealy Ave, Langley AFB VA		SSN	
MSgt Jones, Jane E.		DOS: 22 Oct 98			
DAPS/CIDUITY TITLE		UNIT/OFFICE SYMBOL/STREET ADDRESS		TELEPHONE (DSN & Commercial)	
1S071/Ground Safety Manager		1 FW/SE, 65 Sweeney Blvd		DSN 574-8846 COMM (757) 726-8846	
MAJCOM					
ACC					
BASE/STATION CODE					
Langley AFB VA 23665-2192					
RANK/NAME OF UNIT COMMANDER (Last, First, Middle Initial)					
Col Smith, John J.					
SPECIFIC ACCOMPLISHMENTS (Use single-spaced, bullet format)					
<ul style="list-style-type: none"> - AF Annual award nominations must be submitted using this form (single-spaced, bullet format) - Due at HQ ACC/SEP NLT 1 Nov 97 - Sent through proper channels (WING/SE, WING/CC, NAF or DRU/SE) - Date of separation and servicing military personnel flight must be included on form (see example above) - Nomination procedures, eligibility, and selection criteria are found in AFI 36-2833 - Biographical sketches are not required as stated in AFI 36-2833 - Two-page maximum - Unclassified citations are required for individual awards - Citations should be typed on plain bond paper (IAW AFI 36-2803, Attachment 5) - Nominations must be accompanied by a 3 1/2" data file disk (Form Flow program) - Photographs are not required 					
<ul style="list-style-type: none"> - ACC Annual award nominations must be submitted using this form (single-spaced, bullet format) - Due at HQ ACC/SEP NLT 1 Dec 97 - Sent through proper channels (WING/SE, WING/CC, NAF or DRU/SE, ANGRC/SE, AFRC/SE) - Refer to HQ ACC/SE safety awards message for nomination procedures, eligibility, and selection criteria - Two-page maximum - No disks are required - An 8" x 10" black and white or color photograph is required for each ACC annual award 					

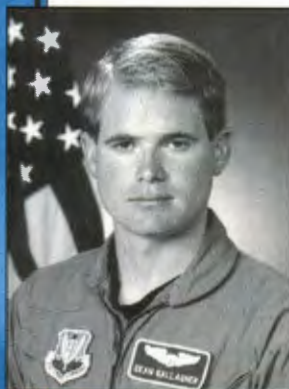
Another fiscal year (1 Oct 96 - 30 Sep 97) has gone by, and it's time once again to recognize those deserving individuals and units for their efforts in mishap prevention. Feedback from the field suggested an easier way of submitting safety award nominations. The AF Form 1206 was used last fiscal year on a trial basis for AF Annual Award nominations and has since been adopted into the ACC Safety Awards Program. Starting 1 Oct 97, the AF Form 1206 will be used when submitting nominations for the AF Annuals, ACC Annuals, and ACC Monthly and Quarterly safety awards. A sample form is shown on this page. The close-out of Fiscal Year 97 is already here, so delay no longer; get those nominations in before the deadlines! ■

MONTHLY AWARDS



PILOT SAFETY AWARD OF DISTINCTION

*Capt Jeffrey L. Harrigian, Lt Sean P. Gallagher
58 FS, 33 FW
Eglin AFB FL*



"Deuce 14, you're on fire, get out!" This radio call abbreviated the confusion of too many lights and an incredible explosion that rocked Lt Sean Gallagher's F-15C just as the pair released brakes for a formation takeoff. Capt Jeff Harrigian's call saved Lt Gallagher's life. The mission was briefed as an 8v8 DACT with an 8-ship runway line-up and formation takeoffs at 15 second intervals. Capt Harrigian and Lt Gallagher were Deuce 3 & 4 of the lead 4-ship. After releasing brakes on their formation takeoff, Capt Harrigian checked his wingman's position and noticed the aft portion of Deuce 4's aircraft on fire. Capt Harrigian immediately radioed his wingman as described above. Simultaneously, Lt Gallagher heard a loud explosion, felt a severe vibration, and saw a brief flash in the left mirror. He quickly brought the aircraft to a stop, applied the engine fire on the ground checklist, and initiated an emergency ground egress. As the canopy opened, the flames were quickly spreading towards his position. At this point, Lt Gallagher was committed to an egress, so he vaulted out of the seat, hung momentarily from the canopy rail, and dropped to the concrete. He sprinted from the aircraft just as it was engulfed in flames. His escape was so narrow that the 4-ship 500 feet back could not tell whether he made it alive. Even though Lt Gallagher executed a textbook egress, he received second degree burns to the face and neck and earned his tactical call sign "Zippo." Capt Harrigian's clear, concise direction prevented any delay and

gave Lt Gallagher, a 90-hour wingman, the few seconds he needed to egress. Capt Harrigian then made two radio calls, one to direct tower to roll the crash equipment, and the other to inform the flight that Lt Gallagher was safe. Further investigation revealed the engine had catastrophically failed causing liberated pieces to sever the main fuel lines of both engines; the result was a huge fireball that could be seen for miles. Although the F-15C was a total loss, Capt Jeff "Cobra" Harrigian's instant recognition of a life-threatening situation and the calm, efficient, and immediate actions of Lt Sean "Zippo" Gallagher saved an Air Force member, the most valuable asset the Air Force has!

AIRCREW SAFETY AWARD OF DISTINCTION

*Capt Whitney Kaler, Capt David Wright
333 FS, 4 FW
Seymour Johnson AFB NC*



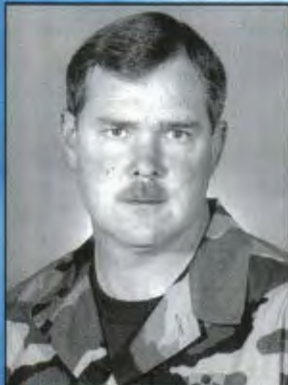
Captains Kaler and Wright were leading a two-ship of F-15E's on a cross-country training mission. This challenging mission included 1v1 dissimilar intercepts and cross-country instrument flight from Seymour Johnson AFB NC to Eglin AFB FL. The aircrew was flying at FL390 at 290 knots to avoid inclement weather when they heard a loud bang from the #1 engine. Capt Kaler noticed the RPM rolling back to 40-44 percent due to a stall and stagnation of the engine. He quickly retarded the engine to idle in an attempt to recover the engine from the stall/stagnation. Their wingman informed them their aircraft was on fire with a 10-15 foot flame coming from their #1 engine. Capt Kaler immediately shut down the #1 engine and depressed the fire push-button. Upon testing the fire lights to be good, Captains Kaler and Wright noticed the temperature (FTIT) continuing to rise through 1,050 degrees, in excess of the Dash-1 temperature limits. Capt Kaler immediately declared an emergency with Atlanta Center and started a descent to FL200. They requested an immediate turn towards Robins, which was the closest emergency divert field, at 20 degrees right and 45 nautical miles. Captains Kaler and Wright completed engine fire/single-engine checklist procedures. Following the completion of engine shutdown procedures, the nozzle on the shut-down engine began fluctuating freely causing large vibrations over the entire aircraft. Capt Kaler asked their wingman to look them over and they observed that the fire was out and a fluctuating nozzle. They continued the emergency descent to 15,000 feet. Capt Wright assisted Capt Kaler by using the radar to avoid nearby thunderstorms. Due to the intensity of the vibrations from the windmilling engine, Captains Kaler and Wright decided to conduct a controllability check to ensure the vibrating nozzle would not be a factor in aircraft control. Upon slowing to less than 200 knots, the vibration decreased and the engine spooled back to 11 percent windmilling RPM. The controllability check verified good aircraft control and low vibration at approach/landing airspeeds. Capt Kaler accomplished a straight-in, single-engine approach, with safety chase, at Robins AFB without further incident.

CREW CHIEF EXCELLENCE AWARD

*SSgt Michael D. Ignacio
652 CLSS, 104 FW
McClellan AFB CA*



A few months ago, final closing inspections were being conducted on A-10A aircraft 80-0256, undergoing maintenance for the completion of Time Compliance Technical Order 1A-10-1369, Night Vision Imaging System Compatible Lighting Modification. As Sergeant Ignacio inspected the tail cone section, his vast A-10 experience and keen attention to detail proved evident when he noticed an outboard bushing was missing from the link assembly to the elevator actuator which controls elevators for pitch control of the aircraft. Further inspection also revealed one bolt was installed backwards on the interconnect shaft of the elevators. Had either one of these defects gone unnoticed, the wear and tear on the interconnect shaft would have been grounds for breakage of the shaft. This would have caused a pitch-down attitude of the aircraft leading to an uncontrollable spin. His superior job knowledge and keen awareness of all aircraft systems prevented a potential in-flight accident resulting in possible loss of life and definite loss of a multi-million dollar aircraft.



FLIGHT LINE SAFETY AWARD OF DISTINCTION

*SMSgt David P. Sando
429 ECS, 27 FW
Cannon AFB NM*

During a squadron sortie surge, SMSgt Sando, while in the Quality Assurance office clearing an aircraft impoundment, overheard the Wing FOD NCO discussing an unidentified part found on the active runway earlier that morning. His curiosity pulled him into the conversation where he immediately identified the part as an EF-111A main landing gear strut retaining pin bolt. Aware of the possible repercussions from this part not being on the aircraft, SMSgt Sando immediately called the Production Superintendent and instructed him to stop the launch of the day's first sorties. The day's first sorties were preparing to taxi at the time. He then directed an immediate inspection of all aircraft on the flight line to identify where the part came from. The subsequent inspection revealed the bolt was missing from the left main landing gear strut retaining pin on aircraft 67-0037; this aircraft was on the schedule to fly that day. Investigation revealed the strut retaining pin had broken in half causing the bolt to fall out. Further investigation revealed the aircraft flew the prior night; the assembly failed upon landing. Had SMSgt Sando not immediately identified the part and taken decisive action to "ground the fleet" for a one-time inspection, the aircraft landing gear would have definitely malfunctioned. Had the aircraft taken off, the left side of the gear would have been dangling, the gear door would not have closed, and the aircraft would not have been able to land—forcing the crew into a controlled ejection situation.

WEAPONS SAFETY AWARD OF DISTINCTION

TSgt James E. Weatherly, TSgt Charles E. Albert III, TSgt John T. Cannon, SSgt Keith D. Crafton, SSgt Brian D. Davidson, SSgt Donald D. Withers, SSgt Dennis M. Coleman, SSgt Shannon D. Steward, SrA Jason B. Parrott, SrA Joseph D. Curtis, SrA Robert L. Shockey, SrA Justin Schraeder, SrA Jestina L. Marwick, A1C Melinda L. Ball, A1C Roy V. Joyner III, A1C Thomas N. Hartley

24 MXS, 24 WG
Howard AFB PN



The 24th Wing Munitions Flight packed, inspected, and shipped its one millionth pound of explosive material back to stateside depots. Over the last 18 months, this group of professionals conducted hundreds of explosive operations in complete compliance with item TOs, explosive safety regulations, and certification requirements for air shipment of hazardous materials. This enormous task has been conducted without a single explosive accident or personnel injury. The Munitions Flight is closing the Munitions Storage Area at Howard AFB, Panama. In that process, they will ship over two million pounds of munitions back to

CONUS depots. When they first began, a plan was formulated to ship excess munitions via space available airlift. To date, they have shipped one million pounds of munitions without interfering with 24th Wing Ground Based Radar support operations, channel airlift requests, or space available passenger service. Even more remarkable is that they are slated for completion by Feb 98...3 months ahead of schedule!

GROUND SAFETY INDIVIDUAL AWARD OF DISTINCTION

*MSgt Michael L. Crosby
20 CRS, 20 FW
Shaw AFB SC*




At approximately 1630 on 30 May 97, SrA Wisniewski detected a foul odor behind the F110 Jet Engine Intermediate Maintenance office located in building 1206. MSgt Crosby and SrA Wisniewski investigated and identified the odor as propane. Realizing the seriousness of the situation, MSgt Crosby immediately started evacuation procedures for the building and called the fire department. He announced over the flight intercom system, "Attention in the flight, we need to evacuate the building; there is a possible natural gas leak." After accounting for approximately 50 people, MSgt Crosby reentered the building and assisted the firefighters in assessing the situation. They confirmed the smell of natural gas and called for assistance from the Civil Engineers. Together they isolated and shut down the main gas supply used in the building's heating system. Civil Engineering Squadron heating and cooling specialists later traced the cause to a faulty control valve located in the heating room. Had the natural gas ignited, ACC's largest Propulsion Flight facility could have been destroyed and the loss literally felt around the world. Over 500 million dollars in assets would have been lost; support for 7 fighter squadrons would have come to an immediate halt; most importantly, 50 of our co-workers would have been seriously injured or killed. MSgt Crosby's actions prevented this catastrophic accident from occurring.

UNIT SAFETY AWARD OF DISTINCTION

*84th Radar Evaluation Squadron
Hill AFB UT*

The mission of the 84th Radar Evaluation Squadron (RADES) is: "To provide worldwide radar evaluation support for existing and developing radar systems, maintain the Air Force long-range radar library, and conduct radar evaluation training. We define optimal radar coverage capabilities for DoD, other governmental agencies, and allied sensors, identifying operational deficiencies and recommending corrective actions through our people and products." The 84 RADES mission requires a high operations tempo for personnel assigned—the highest of all the 505th Command and Control Evaluation Group units. Personnel are required to work in various environments and locations—some inhospitable in nature. Even with this high operations tempo, the 84 RADES has not incurred a single on-duty, mission-related ground mishap. Specifically, in FY 96, 84 RADES personnel logged 200 trips (8,048 TDY days-540 personnel) to over 30 states and 10 foreign nations—all without a single on-duty mishap! This quarter alone, 84 RADES personnel have accumulated 45 trips (1,900 TDY days-145 personnel) to 15 states and 2 countries without an on-duty mishap. The sustained safe performance of the 84th Radar Evaluation Squadron is truly worthy of recognition.





*SSgt Brook Morris
5 BW/SEG
Minot AFB ND*

SAFE AT ANY SPEED

People can be the biggest hazards on the job. When you get careless, you become a defect in the overall system that management has to deal with. Carelessness usually results in someone getting hurt...

Safety requires and receives a lot of attention. However, do we focus that attention in the right areas? The United States Government has numerous safety programs and regulations the Air Force follows. The Air Force makes every effort to purchase equipment and design processes that reduce risk and improve safety. The Air Force also provides training, protective clothing, and equipment, all with the goal of preventing accidents and keeping you safe and healthy. However, all of our regulations, training, and equipment can't protect a person who doesn't look out for themselves and fellow workers. The sad fact is 80-90% of the mishaps that occur are due to human error and could have been prevented. They're the result of carelessness, someone not paying attention, or not thinking safety is important on the job.



Risk Management

This is where personal risk management comes into play. Risk management allows you to take a systematic approach to risk as it involves you and your work environment. The old adage, "Safety is Paramount," may not always be the case anymore. The Air Force provides a lot of education and safety tools, but the most important safety tools are the ones you bring to the job ... your personal "risk assessment" and your "attitude."

People can be the biggest hazards on the job. When you get careless, you become a defect in the overall system that management has to deal with. Carelessness usually results in someone getting hurt — maybe the careless person or an innocent bystander. The concept of *no-fault* does not apply to on-the-job safety or in the risk management system. Risk management stands for accountability, meaning the one who made the decision.

Causes of Mishaps

Most mishaps can be attributed to one of the following causal factors:

- **Complacency** -- That's what happens when someone has done the job so often that he/she thinks they don't have to consider the risks associated with the job. No job is so simple that it doesn't require following technical procedures and paying attention. This is where a supervisor has to know his personnel, understand certain habit patterns and know how to pick the right person for the job based on that assessment.

- **Emotions** -- One time or another, we all get angry or upset at things that happen at home, an incident with someone on the job, your neighbors or even at some stranger who cuts you off the road as you drive to work. These are common reactions to everyday situations, but improper responses like these can distract you and make you careless. You can't afford these emotions when you're working with complex machinery, hazardous chemicals, electrical power,

or other factors that have the potential to cause serious mishaps. These machine systems must be handled with full precision and attention. As a supervisor or worker, you must keep a watchful eye for these conditions and know how to assess and respond accordingly. Don't let your subordinates or co-workers create an unnecessary risk because their mind is not on the job.

- **Fatigue** -- Whether the cause is too little sleep, too long a shift, or maybe a second job, fatigue is a serious risk. When you are tired, your physical and mental reactions are slower and your attention span is shortened. You cannot always prevent becoming tired, but you can be aware of it and either slow down, get help, or switch to a task that does not require as much precision. Don't let the lack of sleep jeopardize your safety. Management must ensure work crews are receiving sufficient rest. With the high ops tempo prevalent in our Air Force today, management needs to be aware of this potential and encourage lower level supervisors to keep a watchful eye on their personnel.

- **Lack of knowledge** -- In your training programs, try to thoroughly cover all the tasks needed to safely accomplish the job. Mishaps can happen when training does not provide necessary information or procedures in sufficient detail. Once again establishing a sound risk management program and the proper performance of assessments will in most cases ensure that training procedures will meet the critical and non-critical mission requirements. This is why Air Force work centers are encouraged to have safety meetings on a regular basis. This is an opportunity for management to provide information to workers and receive feedback as well, thus allowing the modification of certain policies, procedures, or tasks. At this particular point, do not overlook operational analysis as a tool that can easily identify the hazards involving a system, assist your personnel in establishing procedures, or modifying existing ones. The bottom line here is simple:

- If you're not sure "what to do," ASK.
- If you're not sure "how to do it," ASK.
- If you're not sure "how it works," ASK.

Do not proceed unless you know what you're doing, what the risks are, and how to protect yourself. If you run into a situation regularly that has not been covered in training or a safety meeting, mention it to your supervisor. It may be something that needs to be brought to the attention of everyone.

• **Know-it-all or reckless attitude --** Some personnel think they know it all. Some people don't care what they know — or what they do. They'd rather show off or goof off than work. We can't afford for people to act like this on the job. They not only put themselves at risk, but they put the rest of the work force at risk too. Work is serious business. It involves a lot of equipment and substances that can be dangerous if they're not treated with care, respect, and knowledge. There is no place for people who treat their job as a joke or think that safety is somebody else's concern. Safety is everybody's concern. Management needs to emphasize that all people in the unit are responsible for safety and accountable for their actions. This accountability, coupled with supervisors knowing the capabilities of their personnel, can be a valuable tool in risk management.



Safety Awareness

One of your most important safety responsibilities is to be aware of the need for safety. That means applying what you know to what happens on the job: *It means recognizing that safety is your job. As a manager, never "assume" all of your personnel have a common sense attitude, because this fallacy can lead a work center right down the road to destruction.* To have a safe attitude means recognizing, understanding, and planning for the risks you will encounter on or off the job. Here are a few steps you can use:

- *Ensure everyone understands their responsibility for safety on the job.*
- *Think about what could go wrong, and take appropriate action to prevent or control it.*
- *Use the knowledge, training, and equipment necessary to accomplish the job.*
- *Develop safe, effective procedures and work practices.*

Safety in Action

Let's examine some of the ways you can put these basic safety precepts into action on the job. These are general procedures and approaches; it is up to you to turn them into specifics that benefit your work center.

- **Plan each job before you start.** Think about the tools, materials, and protective equipment you'll need as well as the procedures you'll follow.
- **Look for problems.** Think about what could go wrong, and take appropriate action to prevent or control the hazards to be encountered. Think about the prevention of problems and mishaps before they happen.
- **Use all equipment available to you,** i.e., training classes, labels, Material Safety Data Sheets, and protective clothing.
- **Assess your work area and keep it clear of potential hazards,** i.e., items that could be tripped over, bumped into,

combustibles, flammables, corrosives, and caustics.

- **Utilize break areas for their intended purpose.** Keep food, drinks, and cigarettes out of the work area—and wash thoroughly before you touch them.
- **Check tools and equipment before you use them to make sure they're in good working order.** If there's anything wrong, don't use them. Tag them so no one else uses them, and report the problem to a supervisor so it can be fixed.
- **Select the right tool for the job.** The wrong one is more of a hazard than a help.
- **Check ventilation.** When you're working with chemicals, good ventilation protects your health. You're not responsible for installing or maintaining ventilation systems, but you are responsible for making sure they are operating properly.
- **Do not perform hazardous jobs, such as tasks in confined spaces, without a buddy.**
- **Know and follow job rules.** Directives covering how a job will be done are usually the result of some mishap or incident that has occurred before.
- **Don't ignore a safety hazard.** Report it, and follow up on it.
- **Don't ignore other workers' unsafe practices.** Correct them, or report them to a supervisor. No matter how you look at it, your actions can save taxpayers' dollars and save you and your co-workers from having to pick up the additional workload when someone is out due to injury. So many times we hear, "I can't believe I didn't try to stop or tell anyone my friend was driving drunk or my co-worker was not following safe and proper procedures." It's unfortunate, but this still happens despite all of the education and publicity that is put out.
- **Do not bypass safety procedures.** The right way is the only way.
- **Don't take shortcuts.** All these procedures exist for a reason, and that reason is more often than not your safety.

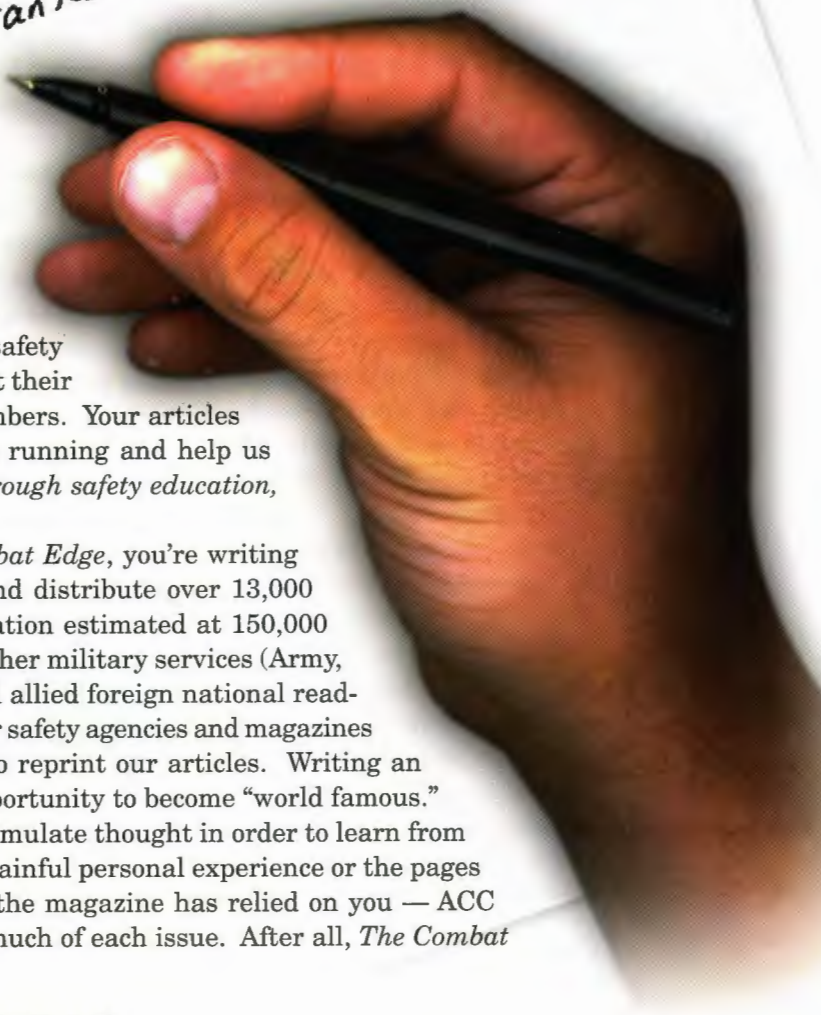
- **Don't fool around.** Horseplay, showing off, and practical jokes don't belong in the work area.
- **Pay attention to what you're doing.** If your mind is on last night, tonight, a ball game, or your bills, you're likely to make mistakes. There is too much at stake not to give your job the attention it deserves.
- **Know what to do in an emergency.** There are contingency plans for fires, spills, etc... Be sure you know where alarms and emergency exits are and what to do in the worst case scenario. There's not a lot of time to look things up in a real emergency.
- **If in doubt, ask.** No one is expected to be perfect and know all things. Pride needs to take a back seat to reason. Do not be afraid to ask for "HELP."

A Part of Your Job

What this all adds up to is simple. Safety is a part of our job. Training helps. Equipment helps. However, none of them are a substitute for a sound job safety and risk management program, combined with a sound belief that safety is everyone's responsibility. Carelessness causes mishaps, but a safe attitude, proper training, and knowledge prevent them. It sounds simple; but the number of accidents and near-misses that occur each year in the Air Force indicates a disregard for, or misunderstanding of, this basic premise. You are responsible for your own safety as well as the safety of those around you. The government establishes safety regulations for your protection. The Air Force provides training, procedures, and equipment for the purpose of keeping you safe and healthy. You have to use the tools you are given and apply your own knowledge and caution to what goes on around you. Remember, the key factor in the safety equation is "YOU!" ■

Writing an Article for The Combat Edge

*Lt Col Adrian Robbe
HQ ACC/SEP
Langley AFB VA*



*"You don't have to be a proff professional
writer to contribute to The Combat Edge.
Our authors come from all branches and
services, with ranks varying from airman
to general..."*

The Combat Edge is Air Combat Command's (ACC'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 13,000 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 Combat*

Edge is **YOUR** magazine. Only you possess full knowledge of the active undercurrent of ACC's mission, the problems you encounter day to day, 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 — hasn'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 safety culture. 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 services, with ranks varying from airman to general and from civilians as well. Most of them felt just as reluctant as you when they decided to write for the magazine, but they had something that needed saying — and they said it. After all, that's really all anyone has to do. Contributions are welcome from anyone who has something to say about safety. Don't let anything in this guide for writing an article for *The Combat Edge* scare you away from contributing. There are thousands of safety related stories out there in Air Combat Command and around the world. Send them to us!

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 "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 kinds of questions holds the reader's attention. However, you don't have to be flat on your back, running out of air-speed, 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. Whether you're a wing commander or a new airman first class in the Air Force, you can still share a great idea that you've developed and proven in the field. I encourage you to write down your safety related experiences and pass them along in the form of "lessons learned" to others.

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

OFF DUTY

Seat belt 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/mass 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 experienced throughout the Combat Air Forces? What does your squadron, wing, or Numbered Air Force (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 — that really got your attention (i.e., scared the wits out of you) that you'd rather not see anyone else have to experience?

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 or safe work place? How does your organization ensure the mission gets done right the first time — safely? What are the safety roles of maintenance, supply, security, POL, transportation, and operations personnel as they all work together in accomplishing your unit's mission? What sort of experiences have you had in or around the flight line, office, hospital, dining hall, or 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 in your life as you accomplish your job?

WEAPONS

Have you ever dinged a bomb/missile or damaged any munitions handling equipment? What could you have done to prevent it from happening? What does it take to operate day in and day out safely and mishap-free with training — as well as live — munitions? How can you ensure the most efficient and successful combat turns during aircraft operations? What lessons did some of you pick up on getting the mission done right during DESERT SHIELD, DESERT STORM, PROVIDE COMFORT,

SOUTHERN WATCH, etc.?

After considering the foregoing thought provoking questions, it should be easy for you to come up with a safety related topic or experience to write about.

How to Write the Story

Remember, you are writing for people just like yourself. How do you tell a story to your friends or family? 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 an F-16. 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. By the way, no one has ever gotten into trouble by writing an article for *The Combat Edge*.

INTRODUCTION

One good way to get your readers' 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, or 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. This is where you summarize the main message or lessons learned 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 a 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, and 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 Combat Edge* is published monthly and is 32 pages in length. As a result, our need for new articles is high. We always welcome the opportunity to consider more stories for publication than we typically receive on a monthly basis.

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 as 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. In addition, as you select a subject to write on, be advised that some topics are purely seasonal. For instance, we wouldn't print an article on lawn mower safety in December; a topic such as this is better suited for use in the summer months. Remember to consider the lead time for getting an article into print and plan ahead.

Drafts should be submitted double-spaced and typewritten. I prefer to receive them over e-mail (or on 3.5" computer disk), but I'll take them via regular mail as well. Feature length articles of approximately 1,000 to 1,500 words or about 4 double-spaced pages (12 point font) normally allow us to do a 2 page layout with artwork. Longer is acceptable as is shorter. The bottom line is — use whatever length is necessary to tell your story. When I receive your article, I will send you a written response 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 me a call. Also, don't forget to include some information (phone number and address) 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. If you do submit a photo with your article, please include the photographer's name, if available.

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. Remember, we like to credit the photographer, so please include his/her name with the submission. A standard public affairs type shot of aircraft, buildings, ceremonies, etc., would be greatly appreciated as well as any candid shots of typical or special activities 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 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 phone number.

A stunning picture from your files may find its way to our cover. You'll never know until you send it in. If requested, 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 in a safer manner. 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 574-8808. 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:

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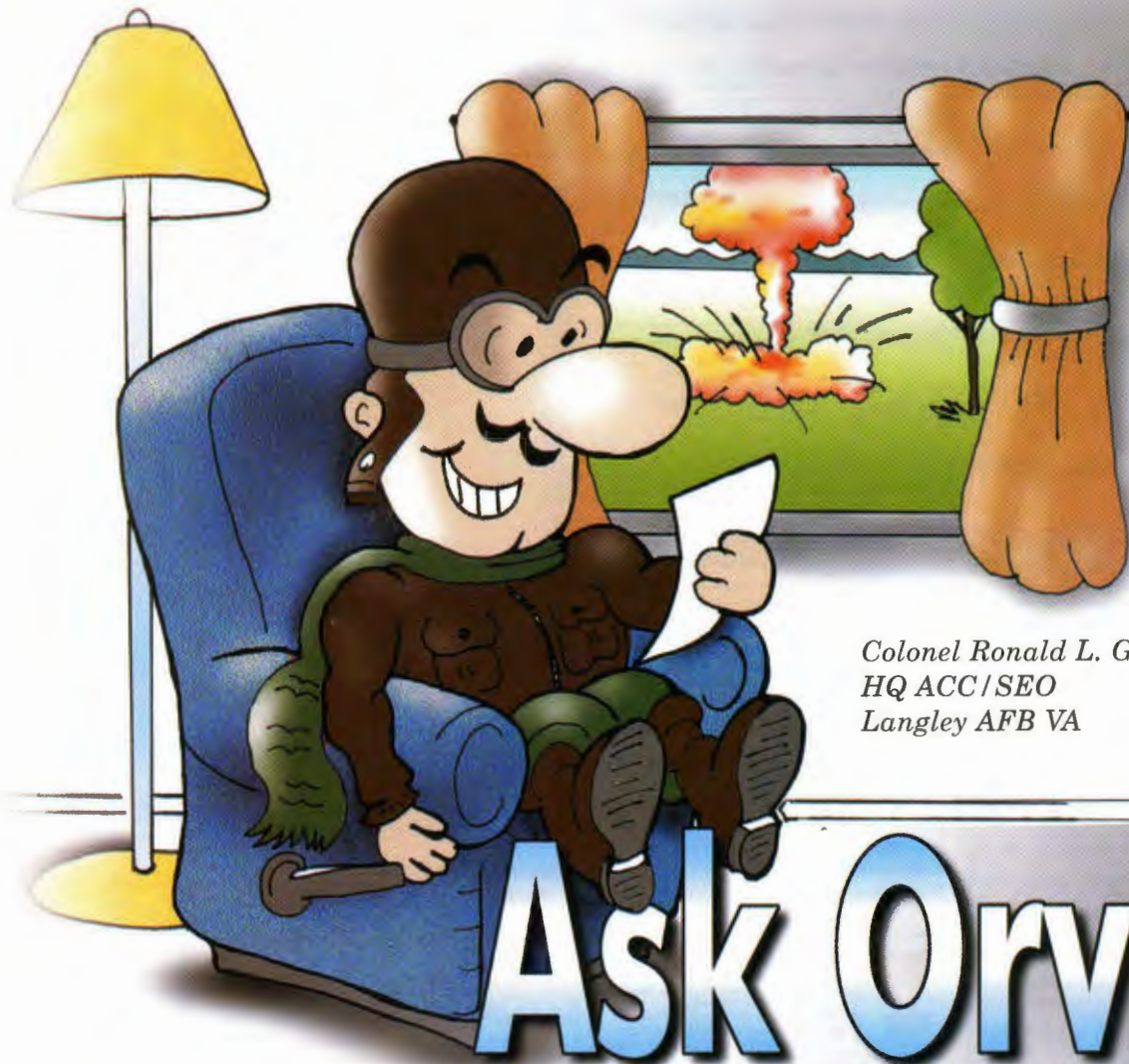
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I certify that all information furnished on this form is true and complete. I understand that anyone who furnishes false or misleading information on this form or who omits material or information requested on the form may be subject to criminal sanctions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

Instructions to Publishers

1. Complete and file one copy of this form with your postmaster annually on or before October 1. Keep a copy of this completed form for your records.
 2. In cases where the stockholder or security holder is a trustee, include in items 10 and 11 the name of the person or corporation for whom the trustee is acting. Also include the names and addresses of individuals who are stockholders who own or hold 1 percent or more of the total amount of bonds, mortgages, or other securities of the publishing corporation. In item 11, if none, check the box. Use blank sheets if more space is required.
 3. Be sure to furnish all circulation information called for in item 15. Free circulation must be shown in items 15d, e, and f.
 4. If the publication had second-class authorization as a general or requester publication, this Statement of Ownership, Management, and Circulation must be published; it must be printed in any issue in October or, if the publication is not published during October, the first issue printed after October.
 5. In item 16, indicate the date of the issue in which this Statement of Ownership will be published.
 6. Item 17 must be signed.
- Failure to file or publish a statement of ownership may lead to suspension of second-class authorization.

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-Ed.



*Colonel Ronald L. Garhart
HQ ACC/SEO
Langley AFB VA*

Our letter this month comes from SMSgt Jerry L. Gibson, 12 AF Weapons Safety, Davis-Monthan AFB AZ. Jerry Writes:

Mr. Orville R. Mudd,

Please help me understand the relationship between ORM, mishap prevention, and mandatory safety compliance requirements. I have two examples that you may want to address and clarify.

Example 1 - What ORM decision process goes into this example? When and who can authorize explosives to be located in the airfield explosives prohibited zones? Who has the final authority to waive this requirement?

Example 2 - An ACC unit was not aware of an explosives safety requirement to submit site plans for a munitions training area using simulators and smoke producing devices. This unit was training aircrew personnel on the use of survival flares in a vacant parking lot by the base pool. The unit safety personnel said they were applying ORM since the explosives were not that hazardous.

*Confused in ACC,
SMSgt Gibson*

Dear Confused,

The relationship between ORM, mishap prevention, and mandatory safety compliance requirements is a direct and interwoven one.

- Mandatory safety compliance requirements were created in order to prevent mishaps. In fact, some of those requirements were born directly out of previous mishaps.

- Mandatory safety compliance requirements are a form of defining acceptable risk levels.

- The systematic approach of ORM is the most comprehensive method available to define acceptable risk levels and thereby set or change mandatory safety compliance requirements.

Putting this all together, the tenants and principles of ORM have been used by some Air Force organizations for years (they just didn't call it ORM back then). Some of the existing mandatory safety compliance requirements may have been established by using the tools and techniques that we now call ORM. Others were established as a direct result of mishaps, in order to prevent similar future accidents. You know, the old "learn from the mistakes of others because you don't have the time, energy, and resources to make them all yourself." And still other requirements were set by the collective experiential and intuitive wisdom of those in the room when the task came down. Regardless of how existing mandatory safety compliance requirements got their start, you must adhere to them until they are either changed or your unit obtains a waiver. But please let there be no doubt on this point, "use ORM to set and change all future safety compliance requirements." ORM is the most comprehensive process available for arriving at the opti-

mum level of acceptable risk. And as we stated above, mandatory safety compliance requirements are a form of defining acceptable risk.

Turning to your particular examples, weapons safety examples are about as familiar to me as sunshine to a mole. Therefore, I hope you will not mind that I solicited some expert advice when addressing the technical portion of your examples. To that end, Lt Col John "Ski" Wysowski (Chief of Weapons Safety, HQ ACC) proved to be an immeasurable asset to the rest of this column.

Regarding your first example, it sounds like you are asking why we have site planning rules if local commanders can use ORM to evaluate, assess, and accept the risk; in other words, use ORM to avoid complying with the safety requirements. **"Do not pass go, do not collect \$200.00, and do not use ORM as an excuse for failing to adhere to existing mandatory safety compliance requirements."** As I stated above, follow existing requirements until they are either changed or your unit obtains a waiver. And use ORM to make your case for those changes and waivers.

To address the technical portion of your question, "Ski" answers: *"Airfield waivers fall under AFI 32-1026, Planning and Design of Airfields, which clearly designates the MAJCOM Civil Engineer as approval authority for airfield design criteria violations (such as explosives or other structures in prohibited zones). Obviously, violations must be processed through command channels and must include justification for granting approval of the waiver. In the process of evaluating a violation to standards, risk management techniques must be applied to the situation to ensure that the violation does not result in an unacceptable risk."*

Turning to your second example, Ski states: *"This is clearly a case of non-compliance with an established requirement. I believe SMSgt Gibson's point is that using ORM techniques to help determine risk acceptability does not eliminate the requirement to obtain site plan approval from higher headquarters. Again, approval of all site plans requires an assessment of the consequences/risks associated with an explosion. Risk management techniques should be used when preparing all explosives site plans. Most explosives site plans require Department of Defense Explosives Safety Board (DDESB) approval. The DDESB will not approve plans that do not meet all quantity-distance (Q-D) standards. In cases of non-compliance with standards, the individual services (designated waiver authorities) technically approve the siting by granting a waiver or exemption to quantity-distance requirements that can-*

not be met. Waivers and exemptions are only supposed to be approved for strategic and compelling reasons. Although approval level for USAF Q-D violations is usually the MAJCOM/CC or CV, some violations require SECAF approval."

The bottom line here; neither ignorance of the mandatory safety requirements nor invoking the name of ORM as an excuse for not following existing guidance is likely to carry much weight at the mishap review. Again, adhere to mandatory safety compliance requirements until ORM — the entire ORM process including getting deviation approval at the appropriate level — shows us a better way. But by all means, do use ORM to identify overly restrictive guidance and to justify waivers or changes to that guidance in order to optimize your mission. ■

Keep those cards and letters flying,

Orville R. Mudd
ORM Dogfight Veteran
ACC Office of Safety

If you have any questions or comments regarding ORM, send them to:

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ACColades

QUESTIONS OR COMMENTS
CONCERNING DATA ON THIS
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CAPT "E.T." MOORE
DSN: 574-8816

	TOTAL			ACC			CANG			CAFR		
	AUG	THRU AUG		AUG	THRU AUG		AUG	THRU AUG		AUG	THRU AUG	
		FY97	FY96		FY97	FY96		FY97	FY96		FY97	FY96
CLASS A MISHAPS	1	18	15	1	10	10	0	5	5	0	3	0
AIRCREW FATALITIES	0	14	9	0	2	8	0	2	1	0	10	0
* IN THE ENVELOPE EJECTIONS	2/0	12/0	11/1	2/0	5/0	7/1	0	4/0	4/0	0	3/0	0
* OUT OF ENVELOPE EJECTIONS	0	0	1/0	0	0	0	0	0	1/0	0	0	0

* (SUCCESSFUL/UNSUCCESSFUL)

CLASS A MISHAP COMPARISON RATE

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

ACC	FY 96	0	1.1	0.8	0.6	0.9	1.2	1.0	0.9	1.0	1.4	2.1	2.0
	FY 97	0	0	0	0.6	1.0	0.8	1.6	2.1	2.1	2.3	2.2	
8 AF	FY 96	0	0	0	0	0	0	0	0	1.2	1.0	1.7	1.5
	FY 97	0	0	0	0	0	0	0	1.2	1.1	1.0	0.9	
9 AF	FY 96	0	0	0	0	0	1.1	1.0	0.8	0.8	2.1	1.9	1.8
	FY 97	0	0	0	1.7	1.4	1.1	2.9	2.5	2.3	2.7	2.5	
12 AF	FY 96	0	3.4	2.4	1.8	2.9	2.3	2.0	1.7	1.5	1.4	3.1	2.9
	FY 97	0	0	0	0	0	0	1.0	1.7	1.5	2.0	1.8	
DRU	FY 96	0	0	0	0	0	0	0	0	0	0	0	0
	FY 97	0	0	0	0	5.7	4.7	4.0	3.5	6.4	5.8	5.3	
CANG	FY 96	0	1.9	1.3	2.2	1.8	2.2	1.9	1.7	2.0	1.8	2.0	1.9
	FY 97	0	3.8	2.6	3.3	2.7	3.0	2.6	2.2	2.0	2.2	2.0	
CAFR	FY 96	0	0	0	0	0	0	0	0	0	0	0	0
	FY 97	0	6.3	4.2	3.1	5.2	6.1	5.3	4.7	4.2	4.1	4.0	
TOTAL	FY 96	0	1.3	0.9	1.0	1.1	1.4	1.2	1.0	1.2	1.1	1.9	1.8
	FY 97	0	1.9	1.3	1.7	1.9	2.0	2.3	2.4	2.4	2.5	2.3	
MONTH	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

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Langley AFB

HQ ACC

Office of Safety



NUCLEAR SURETY

Deficiency Costs Add Up!

Nuclear Surety Deficiency costs add up!

*SMSgt William A. Hodgson
HQ ACC/IGIL-S
Langley AFB VA*

As a supervisor of nuclear weapons maintenance, one of your primary responsibilities is to prevent nuclear deficiencies. How many times have you picked up a Dull Sword (nuclear weapon safety deficiency) report and thought to yourself, "If they only had done ..., this incident could have easily been prevented!" In fact, a comprehensive review of these safety reports reveals that the majority of reportable deficiencies are "preventable."

How many times have you read a Dull Sword report and taken no action? Have you considered what a nuclear deficiency really costs? Unfortunately, Class A, B, or C mishaps usually get people's attention because of the destruction of equipment, lost lives, or large dollar amounts involved. However, nuclear deficiencies on a smaller scale (such as minor damage to a "jammer's" remote control unit [RCU] cable assembly during a weapon mate operation) can still

be costly through waste of materials and man-hours. Many times, these are resources one cannot afford to lose.

Sad to say, some supervisors routinely accept minor deficiencies as a cost of doing business in a maintenance facility. Are you willing to accept these types of deficiencies ... 5, 10, or even 15 times a year? How many times do you report the same minor deficiencies? Have you gotten yourself accustomed to calling someone out to perform these types of repairs on a regular basis?

The dollar amount can quickly add up if you consider all the associated costs. Consider the amount of time your maintenance team waits for the trailer maintenance technician to respond at the integrated maintenance facility. Consider the amount of time it takes to troubleshoot or replace the RCU cable assembly. Add in the cost to repair or replace parts. What about the handling personnel who are waiting for the

loaded launcher or pylon so they can transport it to the storage igloo — what does the delay cost them? A damaged RCU cable assembly does not seem like such a big deal; but when you consider the effects it can have on other sections, it can quickly become a “big deal!” So what do you do?

You can work to prevent the waste of resources caused by minor nuclear deficiencies by performing the required periodic inspections or supervisory checks. If you identify deficiencies, you are responsible to ensure the deficiencies are reported

to the appropriate authorities. During your investigation process, these are some of the questions you need to ask yourself: (1) Are technicians trained and certified on all tasks they perform? (2) Is the right level of supervision on the flight line, in the maintenance bay, or involved with the transporting of nuclear weapons? (3) Is proper guidance being provided? (4) Are all operating procedures adequate? (5) Is all technical data available and current?

Answering these questions will not only help you determine the cause of a deficiency, it will also help you fulfill another supervisory responsibility. That responsibility is making sure the proper corrective action is taken once a deficiency is identified. Merely stating what corrective action is taken in a report is not enough — supervisors must become involved. They must implement the action and properly assess its effectiveness. Sometimes, corrective actions look good on paper but often do not actually solve the problem. Other times, they create additional deficiencies. Because of your training and experience as a supervisor, you should have the capability to properly assess the

corrective actions taken. However, sometimes your training and experience are simply not enough and you must get other supervisors involved. Nuclear deficiencies normally do not affect just one maintenance section. Teamwork and an understanding of the other section's processes can contribute to a corrective action that really works.

It is better to prevent than correct nuclear deficiencies. When they do occur, you must consider all the costs associated with the repair or replacement of parts before deciding on the appropriate action. Not

all corrective actions for nuclear deficiencies are minor or insignificant. When trying to solve these real-world maintenance problems, finding a cost-effective solution is sometimes as easy as reviewing a few Dull Sword reports. Remember, YOU are responsible for preventing nuclear deficiencies; and your leadership and mishap prevention efforts

will help to conserve valuable resources. Do your part to maintain a high level of nuclear surety while keeping deficiency corrective action costs at their lowest. ■

If you identify deficiencies, you are responsible to ensure the deficiencies are reported to the appropriate authorities.

This looks like an area that is ripe for ORM! The study of trends in Class B and C mishaps can often identify hazards and risks that, if left uncontrolled, would eventually lead to a Class A mishap. Similarly, the study of trends in Dull Swords might well identify hazards and risks that, if left uncontrolled, could lead to more serious consequences.

*Colonel Ronald Garhart
Chief, Operational Risk Management*

Please make a copy for your children at home

Halloween

Have your parents check your treats before you eat any

Safety

Don't go out alone

Stay away from unfamiliar neighborhoods

Tips

Go only to houses that you know

Stay on well-lighted streets and in well-lighted areas

Watch for cars

Carry a flashlight

Wear a white or reflective costume

Make sure your costume fits and you can see well

Follow all local trick-or-treat restrictions and times

