

The Combat Edge

Air Combat Command's Mishap Prevention Magazine

> Gen Richard E. Hawley Commander

Col "Turk" Marshall Chief of Safety

Ron Smith Executive Director

Lt Col Adrian Robbe Editor

> Barbara Taylor Associate Editor

> SSgt Dave White Design & Layout

The Combat Edge (ISSN 1063-8970) is published monthly by the Air Combat Command, HQ ACC/SE, 175 Sweeney Blvd, Langley AFB VA 23665-2700. Secondclass postage paid at Hampton VA and additional mailing offices.

POSTMASTER: Send address changes to *The Combat Edge*, HQ ACC/SEP, 175 Sweeney Blvd, Langley AFB VA 23665-2700.

DISTRIBUTION: F(X). OPR: HQ ACC/ SEP. Distribution is controlled through the PDO based on a ratio of one copy per ten persons assigned. Air Force units should contact their servicing PDO to establish or change requirements. Other Department of Defense (DoD) units have no fixed ratio and should submit their requests to the OPR.

ANNUAL SUBSCRIPTIONS: Available to non-DoD readers for \$30 (\$37.50 outside the U.S.) from the Superintendent of Documents, PO Box 371954, Pittsburgh PA 15250-7954. All subscription service correspondence should be directed to the Superintendent, not HQ ACC/SEP. CONTRIBUTIONS: Articles, comments, and criticisms are welcome. Write:

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

Telephone: (757) 726-8842 DSN 574-8842 FAX: (757) 726-8975 e-mail: adrian.robbe@langley.af.mil

The editors reserve the right to edit all manuscripts for readability and good taste.

DISCLAIMER: This magazine is an authorized publication for members of the DoD. Contents of *The Combat Edge* are not necessarily the official views of, or endorsed by, the U.S. Government, the DoD, or the United States Air Force. Information contained in any article may not be construed as incriminating under Article 31, UCMJ. M Denotes images digitally manipulated.

CONTENTS September 1998 ACC SP 91-1 VOLUME 7 ISSUE 4



The F-22 Raptor emerges as the Air Force's next generation Multi-Mission Air Superiority Fighter with a revolutionary leap in combat capability. Widely regarded as the most advanced fighter aircraft in the world, the F-22's unique combination of stealth, integrated avionics, maneuverability, and supercruise will give Raptor pilots a "first-look, first-shot, first-kill" capability against enemy aircraft.

FEATURES

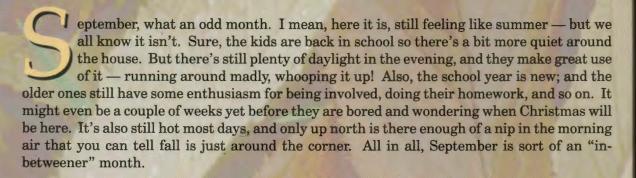
Inside a Dying Jet Capt Dave Serage, USAF Electronic Attack Squadron (VAQ) 134/AOPS Incirlik AB, Turkey

26 Writing an Article for The Combat Edge TSgt Robert J. Coulter, Jr. 55 WG / SEG Offutt AFB NE

DEPARTMENTS

FLIGHT SAFETY	22
WEAPONS SAFETY	10
GROUND SAFETY	8, 14, 16, 30
ORM	12
AWARDS	18
SAFETY STATS	7
FLEAGLE	25

Visit us online at: http://www.acc.af.mil/public/combat-edge/



AU

Safet

It's even that way around work. Yeah, we are all still working long days and sweatin' on a hot flight line. But we know it's the end of the fiscal year, and we're about out of money. Pretty soon, we will all but close up shop as we get the bean counters and number crunchers to tally up the last few flying hours, the last issues from supply, and the last pennies in the budgets. The closer we get to the end of the month, the greater the tendency is to look to that respite and to slack off. After all, we know that next month's fresh infusion of money will mean we are back to pushing hard.

About the only ones not taking any break from their toils are the "gremlins." Yeah, those guys don't seem to work on the same calendar. They don't recognize that the leaves are about to change, that hunting season is just around the corner, or that football season is starting up. They probably don't even care that Tampa Bay finally has a real contender. To a gremlin, any day is as good as another for putting a wrench in the works, a stick in the spokes, or a fly in the ointment. And we have proven in September that you may see the end of the woods, but you're sure not out of 'em yet.

Take last year for example. Wow, what a terrible and tragic month (including the needless deaths that happened on our nation's highways during Labor Day Weekend). You probably remember the wing coming off the F-117, because just about everyone in Maryland had filmed it. Fortunately, there were no serious injuries. But that wasn't always the case. You may not recall as well the horrendous crashes with loss of life in Montana and the South Atlantic. In fact, it was such a terrible month throughout the Department of Defense that Secretary Cohen declared a DOD-wide stand down. To my recollection, that is the only time that's happened in my 26 years of service.

The point here is to not let your guard down just because we're in an end-of-the-year spindown. There are things out there waiting to hurt you, and you need to be aware and ready. Keep your head in the game, and we'll all get past the "in-betweener" without the gremlins catching us napping. Stay alert, and take care!

> Colonel Turk Marshall Chief of Safety

INSIDE A DYING JET

Above: Mitch "Purple" Hayes, Lt, USN, Chris "Boner" Carbone, Lt, USN, Dave "Surge" Serage, Capt, USAF (Pilot), Jake "The Snake" Garcia, Lt, USN

Capt Dave Serage, USAF Electronic Attack Squadron (VAQ) 134/AOPS Incirlik AB, Turkey

he staff guys at Incirlik Air Base, Turkey, call it a monthly "training day." We celebrated it as an opportunity to take a break from Operation Northern Watch (ONW) and scrape the rust off some flying skills that frankly just weren't being tasked during those routine 6-plus hour missions over Iraq. As I led my Prowler formation out of Incirlik, I thought to myself ... a two-ship low level is just the thing we need to fight the onset of complacency caused by flying the last 3 months here. I leveled off below the high winter clouds that had brought so

much snow to the Turkish mountains below; the forecaster had promised they would not impact our flight down low. While approaching the low level entry point, I knew the weather guesser had earned his pay — nothing but miles of clear air.

Dropping down onto the route, the flat and lifeless terrain changed to rolling hills. As a result, I brought my wingman into a fighting wing position to take advantage of the mountain saddles and to skirt around the Turkish villages. We had just avoided a small town and were maneuvering back toward centerline and our notional High

Speed Anti-Radiation Missile (HARM) shot point. During this turn, my wingman slid over to my right side. I checked his position in the mirrors and returned my crosscheck to clear our flight path. That's when I saw them ... a large flock of goose-sized birds. More than a dozen of them filled the windscreen. I called "birds" to the formation and reefed the stick back in my lap. Initially, the high "G" pull looked like it was going to clear the flock, then I heard and felt two distinct thumps. The jet shuddered violently and yawed to the right. As I continued to climb, I scanned the engine instruments. The right engine indications were in sad shape: the RPM was dropping to sub-idle, the Exhaust Gas Temperature (EGT) was spiking, and my wingman was calling out, "Your right engine is on fire!"

I shut down the right engine and turned to an estimated heading for the emergency divert field -Erkilet Air Base, Turkey. My right seater began to enter the waypoint for the field but found the bird strikes had taken out both the INS and GPS. He quickly informed the orbiting AWACS of our intentions to land at Erkilet and asked for a vector. Radio communication with the E-3's controller was weak and confusing. He misunderstood our requests and kept giving us headings for Incirlik. We were quick to recognize the error and remained on our "estimated" heading. We immediately queried our wingman for a better snap, and he came back

> The mission of the EA-6B "Prowler" is to support operations of other strike aircraft by suppressing and degrading enemy defense systems. The Prowler is a four-seat derivative of the highly successful A-6 Intruder medium attack bomber. It has the capability to track and destroy radar sites with the HARM. The Prowler saw duty late in the Vietnam War, in joint strikes on Libyan terroristrelated targets in 1986, and proved their worth in Operation Desert Storm.

Today, the Prowler has taken over the electronic combat

with a 5 degree heading correction.

As I leveled off at 8000 feet MSL. my wingman closed for a better look at us. He reported that the lower half of the nose radome was completely gone and the right engine had visible damage around the intake. In addition, all indications of the fire had ceased. He crossed over and looked at the left side of the jet. My grip on the stick loosened a bit when he reported no visible damage to that side. Now, with some confidence in the left engine, I began discussing a plan of action with my crew. Suddenly, the situation went from bad to worse. Without any warning, the left engine began to compressor stall. With the whole airframe lurching from each stall, I told the crew to prepare for ejection. My wingman was now reporting 6-foot flames coming out of the engine's tailpipe. I climbed an additional 2000 feet to slow the aircraft to 250 KIAS and investigate

the engine's performance.

I attempted to clear the stall by reducing the throttle toward idle and then slowly advancing it back to military. To my disappointment, the engine would not settle down. Each time it spooled up past 80 percent, it would stall. After several unsuccessful attempts to clear the engine, I chose to leave the throttle at military. With the left engine surging between 70 and 85 percent, the situation was not very promising. The best performance the jet could maintain was 230 - 240 knots (approximately L/D max) with a 500-600 fpm rate of descent. I said a silent prayer, pushed my mask's bayonet clips all the way in, and began looking outside for a good place to "return the jet to the taxpayers." In all the ejection scenarios I'd thought about, I had never planned on having more than a few seconds to make a decision on getting out. There I was ... "inside



mission of the retired EF-111A Raven aircraft of the U.S. Air Force. Specifically, four new "expeditionary" squadrons have been designated for this purpose: Electronic Attack Squadrons (VAQ) 128, 133, 134, and 142. These new squadrons are made up of both U.S. Navy and U.S. Air Force aircrew members. The USAF pilots and Weapon System Officers (WSOs) undergo extensive EA-6B training at Naval Air Station Whidbey Island WA. The indoctrination syllabus includes training in electronic jamming, HARM employment, defensive air tactics, and aircraft carrier qualification.

a dying jet" with about 3 minutes to ponder my next action. I looked outside at the surrounding area.

We were at 8000 feet MSL, which equated to about 4000 feet AGL. The valley I was overflying ended sharply at a large snow-covered ridge on the nose. On the other side of the ridge was Erkilet. A small town was just north of our position. I thought that if we punched out here, we could safely make it to the town and be out of the elements. If I continued toward Erkilet (still at an unconfirmed range and bearing), I would overfly the inhospitable ridge. As I weighed these two options, the TACAN (my primary means of navigation) locked up -130 degrees at 20 miles. Having a biology degree from the USAF Academy, I never enjoyed doing math problems - especially in public — but my motivation was at a career high. I quickly ran the numbers in my head: ground speed was 4 miles/ minute, descent rate was 500 fpm, 20 miles to fly, and 4000 feet to descend. If the engine held together, I should make the field at 1500 feet. I just had to clear that one ridge. During the next few moments, I locked onto the closing ridge and studied its movement in the windscreen. It was dropping below my flight path. We would clear it! The radar altimeter read 1500 feet as we crossed over into a haze-

filled valley. The DME (distance to the airfield) clicked down to 10 miles, but I still couldn't see the runway. Then my steely-eyed wingman called the field in sight and talked my eyes onto it. I pointed toward a 1 mile final on the left runway. My right seater called Erkilet tower and informed them of our intentions to land. The Turkish controllers in the tower did not understand his call and tried to query us. Unfortunately, their radio call was equally unintelligible to us and the next radio call that left our jet basically said, "We're landing on your runway, deal with it." Approaching 2 miles at 2000 feet, I had no doubt I could make the field. I dropped the gear and set the flaps to 20 degrees. The back-seaters reminded me that the previous day's route study had showed that Erkilet had two runways: a long one with gear and a short one without gear. Cool, another "trap" for the Air Force guy - the hook came down. As I was turning the jet to a half

l said a silent prayer, pushed my mask's bayonet clips all the way in, and began looking outside for a good place to "return the jet to the taxpayers."

mile final, I looked down the runway to find the gear. That's when I saw it — a C-130. "You've got to be baggin' me!!!" There it was in all its glory — all four props turning, just parked there at the six board.

I praised God for the extra speed on the jet and the parallel runway as I side stepped over to it. I finally pulled the left throttle out of military and silently thanked the Pratt-Whitney engineers for their "over-design" of their J52-P-408A engine ... it had served us well today. Now my only concern was stopping the jet. Touching down at 160 KIAS with only 4000 feet remaining, I questioned how well the brakes were designed on this carrier aircraft. The Grumman guys came through, too. We came to a stop with 300 feet to spare. As the cheers erupted in the cockpit, my wingman flew by. We told him and the orbiting AWACS that we were fine and to send us a ride home.

We climbed out of the jet and took a look at the birds' handiwork. They had crashed through the radome and mangled components of the INS and GPS. Another strike had impacted the right intake and fuselage causing ingestion of a 2foot by 1-foot piece of sheet metal and fiberglass. Portions of the radome were sucked into the left engine as evidenced by several bent and broken compressor blades.

This brush with a Class Alpha solidified a notable aviation quote for me. It has been shouted from the pulpit of squadron commanders, weapons instructors, and safety officers alike. It is embraced as the 5 P's of success: **Prior Planning Prevents Poor Performance**

(or in this particular case ... Prevents a Plane from going to Pieces). For example, my crew was ready for this mishap to happen long before we ever pulled chocks. The previous day was spent in preparation for the flight. We all participated in a thorough route, fuel, and divert study. Therefore, with the engine burning, the INS and GPS deceased, and more than our share of communication barriers, the crew still had the situational awareness to turn the jet toward the divert field - not because of luck, but because of the all the risk control measures taken in preparation for that event. 100



(1 Oct 97 - 30 Jun 98)

Practice the principles of Risk Management both on and off duty.

8 AF	
9 AF	
12 AF.	<u><u><u></u><u></u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u></u>
DRU	Â

Ground Mishap Fatalities

Number of Ground Mishaps/Dollar Losses

	Class A	Class B	Class C
8 AF	2/\$1,225,000	1/\$180,000	133/\$514,079*
9 AF	3/\$375,000	1/\$345,309	115/\$710,259
12 AF	3/\$865,000	NONE	229/\$709,896
DRU	1/\$125,000	NONE	40/\$252,511
Total	9/\$2,465,000	2/\$525,309	517/\$2, 267,745

Class A - Fatality; Permanent Total Disability; Property Damage \$1,000,000 or more

Class B - Permanent Partial Disability; Property Damage between \$200,000 and \$1,000,000

Class C - Lost Workday; Property Damage between \$10,000 and \$200,000

* Cost of most recent mishap not yet available.

SSgt Michael D. Frady 4 CRS/LGMC Seymour Johnson AFB NC Upon first glance, the animal appeared to be only slightly injured. Both the father and son had feelings of heartfelt sympathy toward the small red fox.

Do you remember what caused Old Yeller to turn against his human family in such an aggressive manner? Yep, you guessed it... Old Yeller's abnormal change of behavior from being the fun loving family dog to that of a vicious wild animal was caused by "rabies." an infectious disease of warm blooded animals. Rabies is a virus that attacks the central nervous system and is fatal if untreated. According to the Center for Disease Control and Prevention, over 7,000 animals each year - most of them wild (e.g., raccoons, skunks, foxes, and bats) - are diagnosed as having the disease in the United States. The following true story about a father and son's encounter with a rabid animal is a clear demonstration of the violation of the first principle of risk management: "Accept no unnecesary risks — those that have no benefit and clearly are not worth taking."

ast year in my hometown, a man and his 14-year-old son went out one Sunday afternoon for a leisurely stroll through the countryside. During their walk, they came upon a small red fox lying in the saw briars. The son pointed it out to his dad, who was a real animal lover, and they went closer for a better look. (This was the first mistake.)

Upon first glance, the animal appeared to be only slightly injured. Both the father and son had feelings of heartfelt sympathy toward the small red fox. As a result, they decided to take the animal home with them and provide it some TLC (tender loving care). (This was the second mistake.)

Upon arrival in the driveway, the mom protested their bringing a wild animal home with them. She told her husband that

caring for such an animal was too risky, and he should let nature take its own course. Anyway, the two self-taught professional vets started to mend the fox's wounds. (This was the third mistake.) At this point, we need to remember that sometimes animals know things that we don't know. So when father and son started to cleanse the injured animal's wounds, it apparently didn't like the sharp sting of the antiseptic. As a result, the fox jumped right up, bit the father and son on their hands, started running through the house, and finally went into an open closet.

The mom, startled by the sight of the blood from dad and son (but highly skilled in the art of Tae Kwan Baseball Bat), carefully approached the aggressive, drooling animal and immediately dispatched it. She then

took the dead animal and placed it in the garbage. (This was the fourth mistake.) She returned to find both dad and son at the sink washing their wounds. Looking at the gaping cuts on their hands, she advised them to have a doctor look at their injuries — immediately! "Don't worry about it," said dad. "It's just a small nip. Junior and I will be all right; just get us some gauze and tape." (This was the fifth mistake ... and the biggest one.) Anyhow, in 4 days, the "nips" on their hands were swollen, very sore, and leaking some sort of stinky fluid. In addition, the son had a high fever and was very weak. (To make matters worse, the dad felt that his son just had a sudden case of laziness.)

That's when mom's ability to think and reason paid off. Carefully evaluating the possible risks, she couldn't allow this situation to continue any longer. She took them both to the hospital. They were both examined. and the truth behind their troubles was revealed - they had the dreaded disease of rabies. When the dad was asked "why" he picked up the animal to begin with, not much of a response was given. Then, when asked why he didn't come in sooner; he replied, "Doc, I thought it was just a little nip." The doctor replied, "Sir, the series of shots to the stomach you and your son are about to receive ... well, they're going to be more than just a little nip."

The moral of the story is simple: "In order to avoid mis-

takes #2 through #5, learn from mistake #1. "If you suspect that an animal may have rabies, notify your animal warden or health department so the animal can be captured. Do not attempt to catch the animal yourself." Remember to leave unfamiliar animals alone — this includes the squirrel in your backyard (as well as your neighbor's weenie dog). Report odd acting animals (nervous, aggressive, excessive drooling, and foaming at the mouth) at once to your local animal control center. And if you do happen to get bit, get yourself to a doctor — at once! In the future, when you're confronted with an unfamiliar animal; remember the moral of the story about the small red fox. You can look, but you'd better not touch!

United States Government INFORMATION Order Processing Code:	Charge your order. It's easy!		Fax orders: (202) 512–2250 Phone orders: (202) 512–1800 Mail to: Superintendent of Document		
* 5697	Master and		PO Box 371954 Pittsburgh, PA 15250–7954		
YES, please send me per subscription.	subscription(s) to	Combat Edge (TTACK)	at \$30 (\$37.50) foreign)	
Total cost of my order is ^s	Price includes reg	ular shipping and handlir	ng and is subj	ect to change.	
Personal name	(please type or print)	Check method of pa	Superintende	ent of Documents	
Company name		GPO Deposit Acc	L	cover/NOVUS	
Street address					
City, State, Zip code+4		expiration da	ate)		
Daytime phone with area code		Authorizing signature		9/98	
Please include completed order	form with payment	T	hank you for y	our orderl	

IMPAC Card

Lt Col Bruno R. Eddy HQ ACC/SEW Langley AFB VA

An Explosive Problem!

eview of a recent **USAF** mishap involving a 37mm launcher and projectile used in support of the Bird Aircraft Strike Hazard (BASH) program has prompted concern over local purchase procedures of explosive or pyrotechnic actuated devices. The launcher and ammo in question were being used as intended ... to scare birds away from the runway. However, on the day of the incident, the launcher barrel gave way to the pressures generated by the ammo, thereby rupturing and seriously injuring the operator.

The subsequent investigation of this incident found that the launcher and ammo were purchased through the local economy. This event — coupled with the findings from the investigation — causes some concern over the ability to locally purchase explosive or pyrotechnic related items with the International Merchant Purchase Authorization Card (IMPAC).

Although this incident was isolated to the BASH program, there are other users of explosively actuated tools and equipment that could be affected. At issue is the ability to buy such an item which is sold commercially and serves a valid purpose to the user - who just happens to be in the military. Our overall Air Force safety objectives are to minimize incidents like this one, while trying to place the proper tools in the hands of our folks to do their jobs. Our goal is to ensure those tools (prior to their use) have the benefit of scrutiny by the appropriate agencies, who are trained to keep us safe in

our jobs.

Now, how do we keep this type of incident from recurring? One way is to provide the right guidance to those who will use the IMPAC card to support mission requirements. Steps are being taken to educate IMPAC card users on procedures for gaining approval by appropriate authorities when procuring explosive or pyrotechnic activated tools and equipment.

Currently, unit personnel who want to procure non-stocklisted explosive, pyrotechnic items in support of BASH or any other mission requirement must first get approval from local munitions and safety offices. The request is then forwarded to the MAJCOM for approval. Once the MAJCOM reviews and concurs with the re-



quest, it then goes to the Ogden Air Logistics Center Armament Division (OO-ALC/LIW) for final approval. It is at this point a safety analysis will be accomplished. See AFI 64-117, "USAF Internal Procedures for Using the IMPAC," and AFMAN 91-201, "Explosives Safety Standards," for specific guidance.

Why all the red tape when IMPAC is supposed to make buying needed supplies and equipment so much easier? Well, these explosive or pyrotechnic devices need to be properly handled and stored based on the hazard classification. Most of the items fall into 1.4S. Explosive Hazard Class. Therefore, there is a need to protect personnel from potential injury. These procedures are not in place to make life more difficult, but to build in a measure of protection.

Most of these items have very general instructions (i.e., no technical data), so there is no maintenance or inspection criteria to ensure the item is in a serviceable or safe condition. Obviously, we can't spend thousands of dollars testing each commercial item that an organization wants to buy off-the-shelf; but when it comes to explosive or pyrotechnic items, we need to apply some measure of caution and follow established procedures. The item involved in the previously mentioned accident did not have any safety devices; and upon analysis, the launcher was incapable of containing an in-bore detonation. In addition, engineers found it very susceptible to inadvertent firings — all in all, a very unacceptable tool. Be advised — even though an item is sold in the civilian marketplace, it does not make it inherently safe to operate.

It is unfortunate that the individual involved in this particular incident sustained serious injuries, but we have an opportunity to learn from this mishap and hopefully prevent anyone else from suffering injury or even death as a result of using these types of items. Local purchase and IMPAC cards are great and give us the things we need to do our jobs in a timely manner, but when it comes to explosive or pyrotechnic devices

— safety comes first!



This month's letter to Orville comes from one of our more... how shall I say it... humble? modest? no... let's just say "energetic" airmen in our command.

Dear Orville:

Please permit me to introduce myself; I am A1C Roger Smiley. You may have already heard of me; I am better known around the command

as "Airman of the Millennium." My title is due to the fact that I have managed to win just about every award and form of recognition that the Air Force has yet to create. Let me tell ya ... I have won maintenance awards, operations awards, safety awards, and even local community awards. In fact, I have been named "Airman of the Quarter" so many times that they changed the reserved parking spaces at the Base Exchange and Commissary to read "Reserved for A1C Smiley."

Yes-Sir-Re-Bob! You name the award, and ol' Smiley here likely has the plaque on his wall ... which brings me to the reason that I decided to write you in the first place. Orville, when is ACC going to establish an award for Operational Risk Management (ORM)? After all, this ORM stuff has been around the command for over a year now; and I haven't seen or heard one word about how to win any ORM recognition. Let me make it real easy for you Orville. Just give it a name, set some criteria, establish a schedule for nominations, then sit back and watch Smiley win the accolades. No brag, just fact!

A1C Roger Smiley

Dear Roger:

Congratulations on your exceptional prowess in the awards and recognition circles. You are obviously a force to be reckoned with. I am now — and always have been very supportive of the esteemed awards and recognition programs. They are an outstanding means of recognizing "excellence" in a variety of categories, while at the same time inspiring others to try harder and achieve even greater levels of success. But regarding a specific Operational Risk Management award,

To institute a special award with the extra burden of its own nomination procedures would probably end up "buckling the knees" of our already overworked supervisors.

Col Ronald L. Garhart HQ ACC/SEO Langley AFB VA the short answer to your question is ... there are currently no plans for establishing any formal ORM recognition. To institute a special award with the extra burden of its own nomination procedures would probably end up "buckling the knees" of our already overworked supervisors. That would certainly be counterproductive.

From the moment ACC embraced ORM, the command vowed to keep it from becoming "just another program" with all the trappings. Operational Risk Management was not set up to be

something we do in addition to our other duties, tasks, and responsibilities. On the contrary, ACC has gone to great lengths to promote the tools and techniques of ORM as superior methods of accomplishing the

numerous tasks that our people are faced with everyday. The goal is to use ORM in conjunction with, and as a means to more safely accomplish, the various tasks that you may be assigned. There is no intent to set up ORM as an end result, or as an additional burden added to your already "off the charts" ops tempo.

For example; if your task this week is to plan the munitions beddown at a new bare bones base in East Boondock, use the exceptional ORM tools in AFP 91-215, "Operational Risk Management (ORM) Implementation and Execution," to accomplish that formidable task. (Note: The pamphlet finally passed all the publications laws and was released in July.) Do not, on the other hand, plan the beddown by methods exclusive of ORM and then subsequently go through an extensive ORM drill. While the latter approach would certainly put ORM into your process, it would also in effect add work to your task and set up ORM as a burden that is separate from and in addition to your other duties. Clearly, this is not how ACC desires to implement ORM.

The reluctance to establish an ORM award follows this same implementation philosophy. There is a plethora of awards and forms of recognition across the command in the big scheme of things — a supporting role.

Roger, while I learned a long time ago to "never say never," I do not see an ORM specific award being established in the near future. As we previously stated, a separate ORM award is not in the best interest of the command, and it could well be a barrier to the continued acceptance of ORM. But I will make this offer of recognition to you and all other ACC personnel — if you use ORM to reduce existing risks or to achieve superior performance, I'll make every attempt to

feature you and your success story in a future "Ask Orville" article. Admittedly, that is not a plaque for your wall. However, not only will you see your name and singular achievement in print, but it will

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

"Ask Orville!" HQ ACC/SEO 175 Sweeney Blvd Langley AFB VA 23665-2700

DSN 574-8800, Fax DSN 574-8975

just waiting for you and others to earn. Instead of creating a specific ORM award, I strongly suggest that you use your ORM efforts and successes to help substantiate and support your nomination for existing awards. Referring to the previous example, if you used ORM to create what turned out to be a superior munitions beddown plan, then use that information as supporting justification for your nomination as "Munitions NCO of the Quarter" or whatever other award category might be applicable. That will put everything into perspective. From this standpoint, you win a coveted award for your expertise and efforts in an existing recognition program; and ORM gets due credit as a contributing factor to your success. That's exactly where ORM belongs

be very rewarding to know that you have personally contributed to the command safety culture. This contribution could prevent a mishap, injury, or death of a fellow airman. And as a side benefit for contributing to the command's safety magazine, the esteemed editor of The Combat Edge will provide you with your very own copy of the magazine containing your notoriety — suitable for framing if you still want something to add to your "wall of fame."

Keep those cards and letters flying in,

> *Owille R. Mudd* ORM Dogfight Veteran ACC Office of Safety



Background

Thanks to numerous public information and education campaigns, legislation, and strong state and national leadership, nearly everyone knows the dangers of drinking and driving an automobile. In fact, it has become socially unacceptable to drink and drive. Alcohol and other drugs impair driving skills, such as judgment, reaction time, and general awareness.

What most people fail to realize is the extreme danger of operating a motorcycle while impaired, either after one drink or while intoxicated. While current messages and legislation addressing impaired driving also include motorcyclists, research shows that unless specifically targeted to motorcyclists, the messages and legislation have no effect. Physically, motorcyclists are affected by alcohol in the same way as car drivers. However, what motorcyclists (and even traffic safety program administrators) may overlook is that it takes more coordination and alertness to operate a motorcycle than it does to drive a car.

Impaired Motorcycle Operator Characteristics

Motorcycle operators involved in fatal crashes in 1995 had a higher intoxication rate than any other type of motor vehicle driver: motorcycle operators, 29.1 percent; light truck operators, 22.9 percent; and passenger car operators, 19.2 percent.

Crash Data

In 1995:

• Thirty percent of all fatally injured motorcyclists were intoxicated. • Of the 869 motorcycle operators who died in single vehicle crashes, 43 percent were intoxicated blood alcohol concentration (BAC) of .10+.

• An additional 11.5 percent of all fatally injured motorcyclists had BAC levels less than .10.

• Sixty-one percent of motorcycle operators who died in single vehicle crashes on weekend nights were intoxicated.

• Intoxication rates were highest for fatally injured operators between the ages of 30 and 39 years.

Recent Research

The National Highway Traffic Safety Administration (NHTSA) sponsored focus groups to learn why motorcyclists ride after drinking. The focus groups revealed useful information regarding the use of alcohol in motorcycling. One of the most important findings was that traditional impaired driving messages have no impact on motorcycle operators. These messages generally target automobile drivers. NHTSA found that unless the messages target motorcyclists specifically, they have no impact on motorcyclists.

Other Findings Include:

• Drinking and riding often go together. Drinking was a routine part of motorcycling events.

• Beer is the drink of choice among motorcycle riders, with whiskey as the second choice. Few riders drink wine. Participants believed that beer, liquor, and wine affect them differently. They also believed that beer produced a mellower, less intense high and that it took more beer to "get drunk."

• The riders claimed to be aware of the factors that determine how alcohol affects a person, such as mood and body weight. Many claimed that their own ability to handle alcohol was far above average (because their metabolism was different, they were experienced at drinking, etc.).

• Participants believed that BAC levels are set much too low. Many believed that motorcyclists would not be impaired with a BAC of .08 or .10 percent and underestimated the number of drinks needed to reach an illegal BAC.

• Many riders said that if they knew they were going to drink heavily, they would drive their car instead of ride their motorcycle. Their rationale was that they would be able to drive a car if they were too impaired to ride a motorcycle, and the car's body would offer protection in the event of a crash.

• The threat of injury.or death did not appear to be an effective motivator for avoiding drinking and riding.

• The threat of damaging (through a crash or towing) or losing a motorcycle (through impoundment) seemed to arouse more concern.

Prevention Strategies

Prevention strategies to reduce the incidence of motorcycle riding are similar to those used to prevent impaired driving. However, it is important to note that these strategies must be modified to meet the needs of the motorcyclists.

Designated Riders:

A motorcyclist is not likely to allow someone else to operate his/ her motorcycle, so the designated driver concept does not work. Also, parking a motorcycle overnight in an unsecured location is not an accepted practice in the motorcycling community. However, having a friend or relative haul the motorcycle to the rider's home or secure the motorcycle in a safe place until the owner can retrieve it are viable avenues to an impaired motorcyclist.

Law Enforcement:

Cues used to detect an impaired motorcyclist are totally different from those used to detect an impaired driver. NHTSA has developed a set of motorcycle-specific impaired rider detection cues that will allow law enforcement officials to determine if a motorcycle operator is impaired. These materials are available from the address below.

Public Information and Education:

Based upon the findings of the focus groups discussed earlier, NHTSA (in conjunction with national motorcycle rider organizations) developed a series of public education materials targeted specifically to motorcycle operators. These materials are based in part on the focus group results, as well as behavioral change research. The materials are designed to get young male operators (the preponderance of the problem) to accept responsibility for individual behavior and to realize their actions have a profound effect on others, such as their family and children.

For more motorcycle safety information, contact:

National Highway Traffic Safety Administration Safety Countermeasures Division NTS-15 400 7th Street, SW Washington DC 20590

> Phone: (202) 366-1739 Fax: (202) 366-7149

http://www.nhtsa.dot.gov/people/injury

...during a recent 1-year period, 32 children (ages 14 and under) were killed while an estimated 7,000 more were injured in school bus-related incidents.

> TSgt Anthony Siennis HQ ACC/SEG Langley AFB VA

t's about that time of yeadagain. New teachers, new faces, new students, new places... Soon over 25 million children will be going back to school. E lery year during this time, parents spend a lot of time and money preparing their young people for the upcoming school year. They buy new clothes, paper, pens, pencils, crayons, notebooks, and numerous other supplies; but how many parents incorporate "salety" as part of their school preparation?

Unfortunately, during a recent 1-year period, 32 children (ages 14 and under) were killed while an estimated 7,000 more were injured in school bus-related incidents. Parents, drivers, and students all play an important role in school safety. According to the U.S. Department of Transportation, here are some traffic safety rules we can use to help make this school year accident free. Following these simple, common sense practices will help your children get off to a "safe start" for the upcoming school year.

Parents:

- If your children will be riding a bicycle to school, ensure they learn and obey the following bicycle safety rules.
 - Check the bicycle(s) to make sure the brakes and tires are in good shape.
 - Always travel in the same direction as vehicular traffic.
 - Use proper hand signals when turning the bicycle.
 - Obey all traffic signals and signs.
 - Always wear a protective helmet when riding a bicycle.
 - Help your children choose the safest route of travel between school and home.
- If you are driving your children to school (or anywhere else for that matter), make sure everyone "buckles up." Remember, seat belts save lives.

Drivers:

- When backing out of a driveway or leaving a garage, watch out for children walking or bicycling to school.
- When driving in neighborhoods with school zones, watch out for young people who may be walking or riding their bicycle to school. They may not be thinking about their personal safety, but — as a driver — you sure should.
- Slow down. Watch for children playing or walking in the street ... especially if there are no sidewalks in the neighborhood.
- Watch for children playing or congregating near bus stops. Be on the alert for children arriving late for the bus; they may run out into the street without looking for traffic.
- Learn and obey the school bus laws in your state, and don't forget the meaning of the "flashing signal light" that school bus drivers use to alert motorists:

— YELLOW FLASHING LIGHTS indicate the bus is preparing to stop in order to load or unload children. Motorists should slow down and prepare to stop their vehicles.

---RED FLASHING LIGHTS and extended stop arms indicate the bus has stopped in order for children to get on or off the bus. Motorists must stop and wait until the red lights stop flashing, the extended stop is withdrawn, and the bus begins to move before they can start moving their vehicle again.

Remember ... passing another vehicle is never allowed in a school zone.

Students:

- Get to the bus stop at least 5 minutes before the bus is scheduled to arrive. When the bus approaches, stand at least three giant steps (i.e., 6 feet) away from the curb; and line up away from the street.
- Wait until the bus stops, the door opens, and the driver says it's okay to board the bus.
- If you have to cross the street in front of the bus, walk on the sidewalk (or along the side of the road) to a point at least five giant steps (i.e., 10 feet) ahead of the bus before you cross. Be sure that the bus driver can see you, and you can see the bus driver.
- Use handrails on the bus to avoid falling down.
- When exiting the bus, be careful that clothing with drawstrings and book bags with straps don't get caught in the handrails or doors.
- Never walk behind a bus.
- Walk at least three giant steps away from the side of the bus.
- If you drop something near the bus, always tell the bus driver. Never try to pick it up without telling the bus driver because he/she may not be able to see you.

So remember, as we enter into a new school year, you can help assure the safety of our children by following these simple guidelines. Because of the large number of buses, students, and school activities each day, school-time safety tips should not be neglected. Saving the life of a precious child will make all of our efforts worthwhile.

AIRCREW SAFETY AWARD OF DISTINCTION

Lt Col Stephen L. Hogg, Lt Col Thomas R. Ferkinhoff Capt Jeffrey Schollmeyer, Capt Michael S. Dry Capt Brian A. Humphrey 45 RS, 55 WG Offutt AFB NE

On 5 Dec 97, an OC-135 was flying a routine ferry flight from Offutt AFB to Andrews AFB to pick up a mission crew from the On Site Inspection Agency (OSIA). The take off, en route,

and approach phases of the flight were uneventful. Upon landing, the throttles were checked at idle, the speed brakes deployed and reverse thrust operation initiated. At this point, things changed from a normal landing to a serious and life threatening emergency. After the thrust reversers were applied, the jump seat pilot called a fire light on the number three engine. The mission navigator and instructor navigator verified and made a similar call. The pilot decided to terminate thrust reverser operation since it would unduly complicate the remainder of the landing with asymmetric thrust. The copilot was directed to shut down the #3 engine and did so while the aircraft began to deviate significantly to the right of runway centerline. The copilot followed through with the pilot's inputs and maintained them as the pilot struggled to keep the aircraft on the runway. The pilot applied significant rudder and nosewheel steering to stop the centerline deviation. As the aircraft slowed, full left aileron, full left rudder, nosewheel steering, and the left brake were used to control the aircraft. The aircraft came to a stop 7000' down the runway, approximately on centerline, but leaning severely to the right. The jump seat pilot turned on the alarm bell and the copilot called tower for fire assistance. The pilot shut down the remaining engines and turned off battery power. The duty passengers in the back of the aircraft coordinated and egressed from the left overwing hatch onto the wing and slid down the flaps to safety. The jump seat pilot and instructor navigator popped the crew entry hatch, installed the ladder, and egressed the aircraft followed by the copilot. The pilot and mission navigator verified that everyone was off the aircraft and abandoned the plane. All crewmembers and duty passengers formed up for a head count while the emergency vehicles responded to the mishap aircraft. Post flight inspection revealed that the right main landing gear had collapsed upon landing. The engine fire and controllability problems were caused by the aircraft's right wing settling and subsequent contact of engines #3 and #4 with the runway. Analysis of failed gear components later revealed a "stress corrosion crack" in the drag strut of the right main landing gear. This material failure had triggered a chain reaction resulting in total gear collapse on the right side of the aircraft. Given the critical nature of this emergency and the professional manner in which the crew responded, a potentially catastrophic aircraft mishap was prevented. Had the crew allowed the aircraft to exit the lateral confines of the runway, this incident would certainly have resulted in aircraft destruction and multiple fatalities.

Monthly Awards



PILOT SAFETY AWARD OF DISTINCTION

Maj Jeffrey L. Harrigian 33 OSS, 33 FW Eglin AFB FL

Maj Harrigian distinguished himself by exceptional judgment and airmanship during a time-critical emergency situation. On 8 Apr 98, Maj Harrigian was the Supervisor of Flying for the 33d Fighter Wing. During his watch, the weather was hovering at approach minimums and numerous aircraft were airborne. On 8 NM ILS final, Zipper 14, a young wingman leading an instrument radar trail recovery, notified Maj Harrigian

he had an in-flight emergency. After configuring to land, Zipper 14 observed unsafe gear indications on all three gear. Maj Harrigian immediately assessed the situation and read the emergency action checklist to assist the young wingman. Maj Harrigian directed Zipper 14's flight lead, flying in 2 mile radar trail, to rejoin with his wingman and visually inspect the gear. Once the gear were visually confirmed down, Maj Harrigian directed Zipper 14 to accomplish a normal landing with the brake system in the pulser mode in accordance with checklist procedures. Zipper 14 landed successfully but upon initiating braking, realized the jet was not decelerating normally. The young wingman did not realize he had failed to switch out of the pulser braking mode. As the jet rapidly approached the end of the runway, Maj Harrigian realized the apparent peril and called, "Zipper 14 are you having problems slowing down?" Overwhelmed by the rapidly deteriorating situation, the wingman replied, "It doesn't want to slow down." Maj Harrigian immediately ordered Zipper 14 to lower the aircraft's arresting hook. Already beyond the departure end barrier, the aircraft exited the runway with the hook down and successfully engaged the overrun barrier. The aircraft came to a halt 50 feet short of the grass field at the end of the overrun. Unfortunately, the aircraft's position in the overrun conflicted with the final approach path for the second runway, resulting in the closure of both runways at Eglin AFB. With the weather rapidly deteriorating, airborne aircraft were running critically short of fuel. Maj Harrigian once again quickly took control of the situation and flawlessly coordinated the diversion of eight airborne aircraft to a suitable alternate field. Maj Harrigian's instant recognition of a rapidly deteriorating situation and swift action averted a potentially serious aircraft mishap. His professional airmanship preserved valuable combat assets and prevented serious injury or death.



OF DISTINCTION

AIC Scott A. Lounsberry 57 AGS, 57 WG Nellis AFB NV

At approximately 1300 on 7 May 98, A1C Lounsberry was performing a thru-flight inspection on aircraft 80-0045, an F-15C. During this abbreviated inspection, Amn Lounsberry noticed a broken flex strap on the #1 engine in the augmentor section. When he lowered panel #122L in order to replace the flex strap, he found a small cap inside the engine bay. He identified it as the digital electronic engine control cooling

line cap. Next he lowered panel #95 and discovered a panel retention cable had come loose from its stowed position and entangled around the #1 engine throttle shaft. Amn Lounsberry notified his supervisor of the serious discrepancy he discovered and then completed the necessary repairs. Had these conditions gone undetected, an inflight loss of control of the #1 throttle and subsequent failure of the #1 engine could have occurred. He demonstrated "excellence in all we do" and a "safety first" attitude preventing serious damage or loss of a valuable USAF aircraft. Amn Lounsberry's attention to detail, commitment to the FOD program, and inquisitiveness to look further than required demonstrate the type of airman required to generate these most critical sorties.



FLIGHT LINE SAFETY AWARD OF DISTINCTION

MSgt James W. Williams SSgt Bernard Hampton 20 CRS, 20 FW Shaw AFB SC

On 21 Jan 98 at 1545 hours, MSgt Williams observed an F-16 aircraft parked on the trim-pad area with the aircraft operator attempting an engine start. After engaging the jet fuel starter, there was a tremendous amount of smoke coming from the

engine exhaust and the rear of the aircraft became engulfed with flames. MSgt Williams and SSgt Hampton raced from the office and ran 50 yards across the flight line to the trim-pad to assist in the emergency situation. Sgt Williams rolled the fire bottle within a safe distance of the aircraft and charged the handle. Sgt Hampton immediately instructed the operator to return to the cockpit and dry motor the engine to extinguish the fire and expel the excess fuel. Sgt Williams also instructed the operator to proceed with his emergency procedures and to call for a fire truck. Within a few minutes, the fire was extinguished and Sgt Williams directed the operator to continue motoring to ensure the fire was completely out with no raw fuel left to reignite the flames. After shutdown, a post inspection of the aircraft and engine revealed no damage except a large quantity of fuel remained in the tailpipe. Sgt Williams instructed the ground crew to lower the panels and to call Quality Assurance to investigate the situation. Sgt Williams and Sgt Hampton's quick reactions, outstanding directions, and superb calmness in taking control of the situation and directing the correct emergency procedures saved possible injuries, death, and a potentially catastrophic aircraft ground mishap.



GROUND SAFETY AWARD OF DISTINCTION

MSgt Scott A. Hetznecker 57 CRS, 57 WG Nellis AFB NV

On 22 Jan 98, an A-10 aircraft was being towed on "Foxtrot" taxiway to the engine Test Cell. During the towing operation, an HH-60G from the 66th Rescue Squadron began engine start operations. The driver of the A-10A tow vehicle veered from the center line of the taxiway to provide separation from the helicopter. Due to the departure from the center line, the right ying tip of the A-10A struck the Propulsion van which

was parked on the far side of the taxiway apron. Damage to the vehicle and aircraft wing tip totaled over \$6,728. MSgt Hetznecker immediately identified that the lack of parking space near Test Cell facilities was causing personnel to park vehicles on the shoulder of the taxiway. Since funding shortages had ruled out the possibility of building a permanent parking area, Sgt Hetznecker aggressively sought other solutions to the problem. He researched the Defense Utilization and Marketing Service web page and found five pallets of runway matting which was not being used and tagged for disposal at Wright-Patterson AFB. Using Operational Risk Management as a guide, he assessed the danger and developed a cost-saving solution which resulted in a temporary parking area, eliminating this accident from reoccurring. After numerous phone calls, he coordinated the shipment of the runway matting to Nellis AFB, after which he and his personnel installed them as a self-help project. The new parking area now provides ample parking space for Test Cell vehicles and eliminated any need to park on the taxiway shoulder. Furthermore, the cost for the new parking area was limited to \$400, the cost of shipping the panels to Nellis.



UNIT SAFETY AWARD OF DISTINCTION

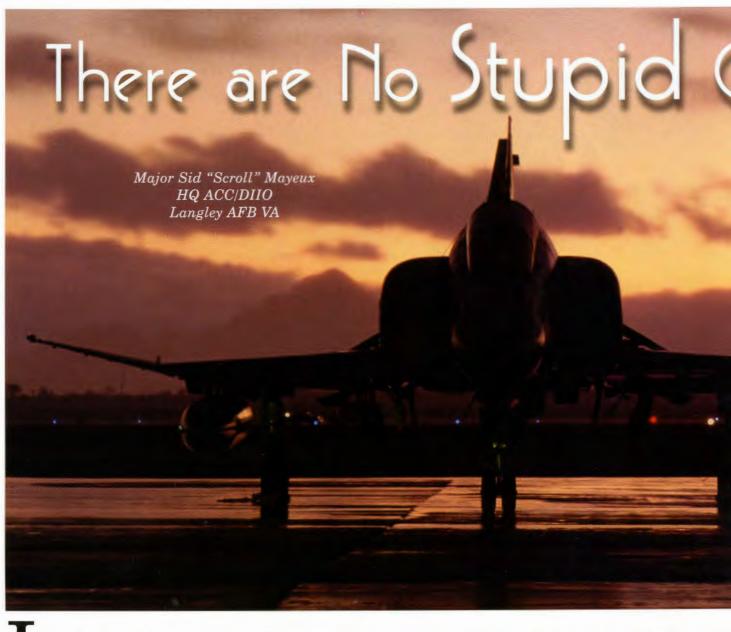
96th Bomb Squadron 2 BW Barksdale AFB LA

Since Nov 97, the 96th Bomb Squadron has spearheaded Operation DESERT THUNDER—an around-the-clock alert enforcing Iraqi compliance with United Nations' weapons inspections. Within days of notification, the unit moved aircraft, equipment, and over 250 personnel 15,000 miles to the island of Diego Garcia with zero mishaps. The 96 BS was the focal point of the 2d Air Expeditionary Group (2 AEG), a combined ACC and AMC strike force. Our safety team analyzed the airfield and flight

operations and implemented several programs that dramatically enhanced flight safety. The 96 BS created standard training routes/missions that enabled aircrews to maintain proficiency and combat readiness under austere conditions with minimum resources. The safety team designed and implemented a desperately needed Bird Aircraft Strike Hazard (BASH) Program which limited mowing operations and provided command unified bird definitions and procedures. The BASH plan was implemented by the entire bomber and tanker strike force as well as naval tower personnel. It was also highlighted as a "Recommendation" for the Navy and Air Force in a recent USAF flight mishap investigation and benchmarked by the 55th Combined Wing for operational deployments to Diego Garcia. The 2 AEG has virtually eliminated birdstrikes since its inception. We conducted flight line orientation training for aircrews and maintenance, including communications procedure handouts that became standard in all flight line vehicles. The Safety staff coordinated B-52 emergency procedures with fire department personnel and set up life support and aircraft orientations familiarizing them with B-52H egress locations and equipment—result: flawless execution of several minor emergency responses.

The 96 BS conducted weekly "hangar flying seminars" and safety briefings to keep aircrews and maintenance focused and informed. This included the January ACC Safety Day meeting, which was attended by over 300 personnel from ACC, AMC, and the Diego Garcia Naval Support Facility. Due to the high turnover rate, the 96 BS developed standard briefings on local hazards, dangerous marine life, sports safety, BASH, and local flying which were used as orientation briefings for over 1,000 incoming 2 AEG personnel. Safety also identified a significant trend—most minor ground injuries occurred during the 2d and 3d week of the deployment; the 96 BS actively tackled this issue through "The 14 Critical Days of Diego Garcia" briefings which reduced minor ground injuries by 59%.

Aggressive safety leadership emphasizing attention to detail resulted in zero flight or weapons related mishaps for well over 1,000 hours of flight time. During this period, the 96 BS was recognized for its superior overall safety program by receiving an "Outstanding" rating in flight, ground, and weapons during the Combined Annual Wiag Safety Inspection. The key to our exceptional rating was superior two-way communication up and down the chain of command. Commander, supervisor, and Unit Safety Representative (USR) involvement were laudable. Personnel interviewed felt that upper level management throughout the squadron promoted "Safety First!" The squadron members were very familiar with who the USRs were and what the reporting procedures are for mishaps/incidents. Innovative weekly safety briefings on vital topics ranging from AF mishaps to Operational Risk Management and a strong relationship between USRs and the commander greatly enhanced the squadron lines of communication. As a result of the 96 BS's safety awareness and education, there were no Class A or B flight, ground, or weapons related mishaps in 1997 during more than 4,500 flight hours. The 96 BS provided superior leadership, performance, and safety awareness enabling it to support global operations and maintain the highest standards of safety excellence at home and abroad!



t is unbelievably easy to make assumptions — very dangerous assumptions during the direst emergency situations. Now, it's true that in a 2-man fighter aircraft, a crewmember begins making educated assumptions about the other guy's thoughts and actions (such is the nature of mature crew coordination). It works the same way with single-seaters between flight leaders and wingmen. In a squadron filled with instructors [such as a Fighter Training Unit (FTU)], crew coordination assumptions become "very easy" to do. After all, every person there (being an experienced fighter pilot or Instructor Weapons Systems Officer [IWSO]) has "been there and done that."

I am an instructor and evaluator WSO with just under 1700 hours in F-4 Phantom E's, F's, and Weasel G's. Let me tell you how a couple of basic assumptions nearly cost me my life ... as well as that of my pilot. By the way, sitting there with wings level at 0 KIAS/1 G, I understand how easy it will be for you to snicker at what I'm about to describe. Remember how one's thought processes tend to direct one's actions? Let's debrief mine ...

There I was, lead IWSO of a wayward Phantom 2-ship crosscountry from Holloman AFB to Pt. Mugu NAS. We had stopped at Nellis airpatch for gas and lunch. My pilot was our wing Chief of Safety, a light colonel Instructor Pilot (IP) with around 2000 hours of previous F-16 and



F-117 experience. Knobby 2 carried a greater than 1000-hour IP (previous F-15) and a patch-wearing IWSO (previous F-111, also with quad-digit flight time). Needless to say, Knobby-Flight-of-Two-Fox-Fours was current and qualified.

It was a typical summer Nellis day — hot and grumpy! The tower and Supervisor of Flying (SOF) were particularly interested in our departure time, since we were in the window before a Red Flag recovery. Still, we weren't rushed in any way. We'd built in plenty of preflight time and were ahead of the curve. Our preflight inspections were FTU methodical ... with both crewmembers checking their jet plus the usual patience afforded the Transient Alert (TA) chiefs who weren't accustomed to Double Ugly's engine start and pretaxi nuances.

We ran up the 2-ship on the inside runway (Rwy 21R) for 10second single-ship takeoffs. Ghostly images of the usually heavy midday traffic on Nellis Boulevard shimmered through the runway heat. Our wingman's engine status mirrored off his noggin nod; so we released brakes and stroked the burners (two good lights in both cockpits), beginning our takeoff roll. Airspeed off the peg, 100 knots (go for tires), rotate ...

Three voices spoke the very same message at almost the same time. First, "Betty" sang out her siren song: "Fire, Fire!" Our wingman broadcast one of those two proverbial wingie radio calls: "Lead, you're on fire!" My pilot filled in the picture: "I've got an Overheat Light on #2!"

I figured it safe at this point to assume that I was indeed (for real) on fire. Not a tough assumption ... with an observed flame longer than the jet's length; but it was probably the "last" accurate assumption I made all day.

We had just lifted off. Abort? Not an option. I spouted BOLD-FACE prose while my pilot executed the drill. When I recited the last step, my pilot questioned the value of jettisoning a 4000 pound gas tank onto Nellis Boulevard. Well, despite the fire, the stricken engine appeared to be running well enough. Both engines' RPM and Exhaust Gas Temperature (EGT) indications were married up, though the #2 Fire Light had also illuminated, hinting that the fire might have traveled forward into the engine bay. "Let's turn right to north, between the golf courses," I replied, hoping to get away from civilization.

In the turn at 250 KIAS, he pulled the #2 engine out of burner. Immediately, the Overheat Light (aft fuselage sensing loop) went out, but the Fire Light stayed lit. Knobby 2 said the fire appeared extinguished. At 280 KIAS, he brought the engine to idle. The engine's gauges never wavered as we climbed north past the golf courses toward Apex and Jettison Hill. I love the Phantom - she'll burn all day, but she won't just up and explode on you. Now this brings me to ... some wrong assumptions.

Bad Assumption #1: I'm flying with a fighter pilot who was familiar with Jettison Hill. He'd flown locally before in Red Flag and as a Tonopah Stealth geek. So I thought to myself, "For sure, he'll get rid of this fuel tank right about ... now!" But the tank stayed attached to the airplane. When I uttered, "We're over Jettison Hill," he neither responded nor jettisoned. Hmmm ...

Bad Assumption #2: He must have a good reason for keeping the tank. By this time, I had fished out the checklist for shutting down the engine. We received slightly more help from Air Traffic Control (ATC) than we needed (they do try hard) while we dumped our wing fuel. It was around this point I realized I'd better be a little more vocal about some of those personal "warnings, cautions, and notes" that, as experienced flyers, we all keep filed somewhere in the gray matter. The "warning" flashing in my gray matter was ... Center of Gravity (CG)!

Here's an F-4 with a full centerline bag and empty internal wing tanks, about to come in for a heavyweight landing on one engine on a very hot day. Our CG was undoubtedly somewhere between "well aft" and "out to lunch." This time, I brought up the CG and received his reply with a plan to fly a slightly fast approach for better stabilator control authority.

My nose gunner greased her in beautifully, then brought Double Ugly to a stop on that fine line between hot brakes and crash crew proximity. The Nellis Flight Safety guys collected us at the jet's 10 o'clock position and took us back to base ops. I logged a 0.4 but — being a creature of habit — 5 minutes of that went towards taxi time. Trust me, it was barely a 0.3 sortie.

Postflight inspection revealed a thoroughly scorched #2 engine bay, starting back by the burner can where the gray paint underneath was bubbled and sooted. Our safety guys had no problem determining where and when the fire started. The afterburner control fuel line leading from the main fuel pump had failed, right after we initiated the Afterburner (AB) for takeoff. If it had failed before advancing the throttle into the AB range, the AB couldn't have lit. The fuel line failed after the burner turned on, pumping gallons of raw JP-8 into the engine bay. On takeoff rotation, the fuel sloshed back and ignited itself on the AB flame.

When we instruct our student

pilots and pitters, we're always telling them: "There's no such thing as a stupid question." That notion has very serious, practical applications to crew coordination; certainly throughout all aviation, but particularly during stressful emergency and combat scenarios. No matter who you are flying with (whether in your jet or on your wing), you cannot assume he or she knows everything about the situation at hand. Your input may seem insanely obvious and frivolous to you at the moment, but it might be that one vital piece of information escaping your partner's clue bag.

Here's my proof. Once on the ground, I asked my nose gunner why he didn't punch off the tank when I said we were over Jettison Hill. "You said that? I didn't hear you. If I'd known we were over a jettison area, I'd had that tank off in a heartbeat!" How about you? For example, when was the last time you asked yourself: "I am cleared for takeoff ... aren't I?"

So anyway, we landed the aircraft safely; with no injuries either in the air or on the ground. Yes, I covered all the BOLDFACE and Emergency Procedures (EP) checklist items, to include deviating where necessary due to this emergency's individual complexities. As a crew, we received congratulations for a job well done. Yet, I've never felt 100% about my performance that day. In my aviator's heart of hearts, I know that any other complications might have turned the tables for us. We were truly fortunate. Well, here's the bottom line to my story: If you can't in good conscience bet your life on an assumption you make in the cockpit, there is definitely "no such thing as a stupid question."



About the Author

Major Sid "Scroll" Mayeux (left) is currently the Chief of Fighter EC Ops at HQ ACC, Langley AFB VA. As an F-4 Phantom WSO/EWO, he flew combat sorties in the Weasel while stationed at Spangdahlem AB GE and Nellis AFB NV. He then became an FTU instructor WSO in F-4E/Fs at Holloman AFB NM teaching Luftwaffe student crews.





<u>The Combat Edge</u> 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 <u>The</u> <u>Combat Edge</u>, 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 <u>The Combat Edge</u> 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 <u>The Combat</u> <u>Edge</u>. 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 <u>The Combat Edge</u> 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 airspeed 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 <u>The Combat Edge</u>.

WHAT TO WRITE

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 hardlearned 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 flightline, office, hospital, dining hall or work site that you don't ever want to have again? What when complacency, happens 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 COM- FORT, 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 <u>The</u> <u>Combat Edge</u>.

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? (1) The Military Unique Work area is impacted by OSHA standards and their application.

or

(2) "Can't Do!!" is NOT a PRO-ACTIVE 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.

(1) Emergencies are very serious and can be dangerous.

or

(2) 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. <u>The Combat Edge</u> 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. Also, protect your prints and slides in the mail. Label them as photographic material, and use stiff cardboard to protect them from bending. Don't forget to include your full name, address, and DSN phone number, too.

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, <u>The Combat Edge</u> 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 574-8842. 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, <u>The Combat Edge</u> HQ ACC/SEP 175 Sweeney Blvd Langley AFB VA 23665-2700

e-mail: adrian.robbe@langley.af.mil

Voice Phone (757) 726-8842 or DSN 574-8842 FAX (757)726-8975 or DSN 574-8975 TSgt Robert J. Coulter, Jr., 55 WG/SEG, Offutt AFB NE

ishaps are a curious thing. Their circumstances are seemingly very innocent — a forgotten step, an overlooked procedure, or taking the infamous "Short Cut." But their results are often devastating — extensive damage, severe injuries, or even death.

The warning signs before the event are often readily apparent. It is sadly amusing to hear the question, "Why did this happen?" One accepted definition of a mishap is "an unplanned event ... " But, mishaps are no mystery. We "plan" them in great detail. We store flammable items around heaters. We get into our vehicles after ingesting significant amounts of alcohol and drive away. We use tools that are damaged or broken. We ignore or discard written operating instructions. As humans, we consider ourselves to be above the fray and to be intelligent enough to avoid accidents. Yet, we move inexorably toward the scarlet conclusion.

17

Why do we tempt fate and laugh in the face of logic? Why do we purposefully flaunt accepted wisdom and calmly step over the line? We are able to do this because we possess an exaggerated sense of our ability to control other things. Oftentimes, we think we can control our environment (e.g., "The ocean looks calm. Let's head out further."). We can control other humans, too ("I can make the traffic light. He won't pull out."). Plus, we can predict the future ("My seat belt is a waste of time. I'll be leaving the car momentarily."). We routinely decide that other folks don't have the slightest idea of what they are talking about, regardless of their experience.

We are a society that values the end result more than the process. Our desire to attain the perceived prize is strong enough to cloud our judgment and cause us to dismiss or downplay impending difficulties. If we are in a hurry, we display a flagrant disregard for rules and regulations that have been established to prevent accidents or delays. Then, when we are cleaning up the mess, we are arrogant enough to wonder why the other person got in the way.

Just recently, I was returning from a TDY when the weather turned sour. The leading edge of a significant late-winter storm deposited a torrent of freezing rain. Within a very short period of time, the freeways were covered with glare ice. Traffic across the better part of two states was paralyzed. Most vehicles weren't even able to make the next exit and sat partially on the road surface for fear of slipping down the long, sloping shoulders. A powerful, shiny 4x4 sport utility vehicle came zipping by and roared off into the horizon. The driver's concern for safety must have been overcome by misplaced trust in his ability and the vehicle manufacturer. Later, as the cars began to move again, traffic coming into the outskirts of the next city stopped still on the freeway. The radio confirmed what I suspected. The driver of that shiny 4x4 had lost control of his vehicle and left the road at high speed. The vehicle had flipped several times, ejected all of its unbelted, intoxicated occupants, and separated into piles of metal rubble. The state radio network continued to update the story during my drive. The four occupants had been returning from a spring

The key to reducing risk is simply this — THINK. Sound too simple? Well, it is simple. Don't make it harder than it is; just stop and THINK.

break skiing trip. They were in a hurry to get home. Enough evidence had been preserved to determine the driver had been driving with his cruise control set at 75 mph when they went across a bridge. The surface of the bridge was slick with ice. As a result, the vehicle spun wildly out of control — narrowly missing three other vehicles. No one in the vehicle survived long enough for responding medical care.

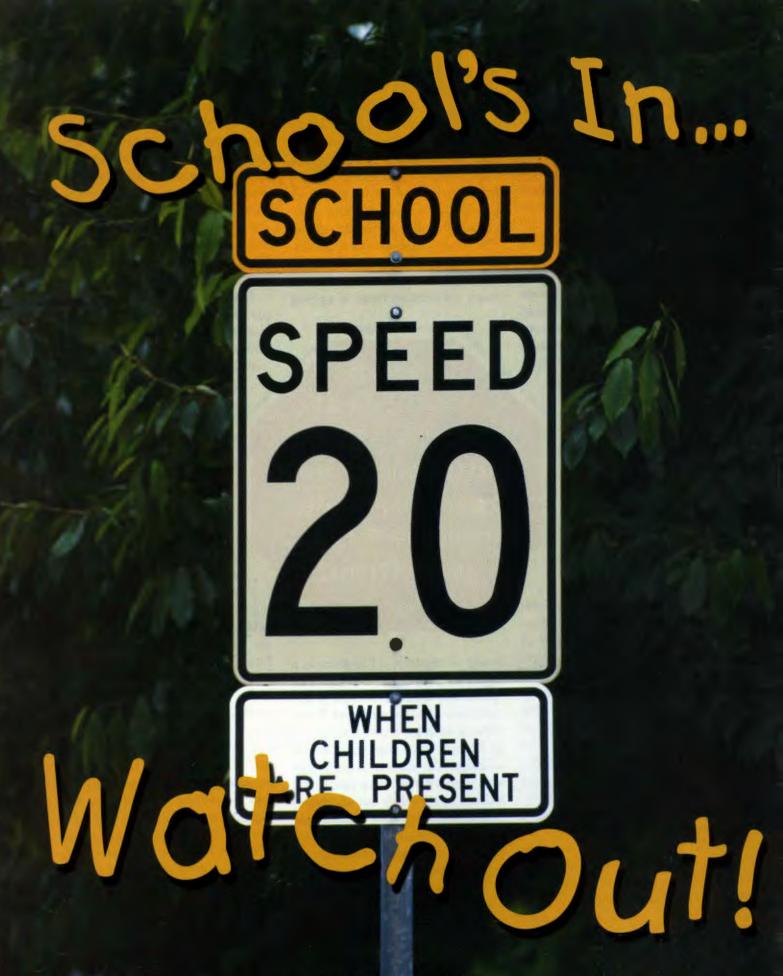
If you are confronted with an identified hazard while accomplishing a task, make an assessment of the risk involved. Then, think about what can be done to counter that risk. Also, determine which courses of action will best accomplish the task at hand with an acceptable level of risk. Moreover, give yourself an alternative to situations where you feel pressured, rushed, or without choice. Finally, implement the appropriate course of action and monitor the operation for effectiveness. That's Operational Risk Management (ORM) in action.

The key to reducing risk is simply this — THINK. Sound too simple? Well, it is simple. Don't make it harder than it is; just stop and THINK. Give yourself a con-

structive working pause, and interject some thought into your process. No matter what your task is, accomplishing it right the first time (according to correct job procedures) will satisfy the safety and efficiency factors. And besides, there will be no need to correct errors, start over, or reschedule another attempt.

Plus, the by-products of adhering to established procedures are extra time and money that you can devote to other worthwhile efforts.

Don't allow ANYTHING to make you skip a requirement, omit a step, or rush to complete a job. If you do, you may find yourself taking a "shortcut to disaster." Just remember this; the few moments you gain by doing a halfway job will be impossible to defend or explain in the event of a mishap. By eliminating, reducing, or controlling risk, you will be well on your way to preventing injury, damage, and mission degradation. That's our goal ... preventing mishaps while maximizing mission success.



Air Combat Command's Mishap Prevention Magazine The Combat Edge