

#### The Combat Edge

AIR COMBAT COMMAND SAFETY MAGAZINE

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# AGGANII Sallety

pring has sprung! The weather's turning warmer, the grass is getting greener and, down at the diamond, the kids are warming up throwing baseballs. Ahh, life is good! Yes, this is really a wondrous time of the year and I think we all tend to get a bit excited in anticipation. Oh, we certainly enjoyed winter's first white blankets of snow, the crispness of frosty air and the coziness of a crackling fireplace, but we've grown tired of that and are ready for springtime. We still gotta watch out 'cause Old Man Winter will surely have a few kicks left in him. Foggy mornings, fast moving fronts bringing heavy rain to mix with the melting snow, all these are the price of springtime and we must be wary of them.

The fickle weather won't be our only worry as we make the transition to spring; we also have to be careful to not rush into outdoor activities without a little preparation. Let's take that green grass and baseball as examples. There'll be a lot of us that wake up one sunny Saturday morning and decide that today's the day to get the mower out for the first time. That means a few minutes de-winterizing it, maybe even a blade sharpening and a tune up. How 'bout giving the operator equal attention? Take a few moments to refresh yourself on the mower's safety features, check yourself out for adequate footwear and do a "preflight" sweep of the yard to gather up winter's collection of sticks, stones and broken Christmas toys. Remember Murphy's cardinal rule of safety: "If it can, it will, and at the worst possible time."

Okay, you survived cutting the grass and are just about to settle in for a well-deserved nap when your buds ring you up and beckon you to join in for a few innings of America's favorite pastime. Digging around in the closet, you find your cleats and glove and head off for the ball field. Only the non-professionals waste time warming up, so you jump right up to bat and, lo and behold, the first pitch is sooo sweet you rear back and swing with all your might. Sorry, no crack, just a whoosh and a tearing sound together with a twinge in your shoulder that says you'll be feelin' this more later on. Okay, okay, so you got around a little fast, chalk that one up as your warmup. Here comes the next pitch. Crack! Oh, beautiful sound, you're off and running, this'll be an easy double. About the time you get to first, you sense that maybe you've slowed down over the winter 'cause second doesn't look quite as easy. With 20 feet to go, you know you're going to have to slide and, deep in your brain, the little neuron guys start flailing. Slide? Yeah, that's filed right between skiing and snow shoveling; quick get the folder, how do we do this!

Well, there's a bright side. As long as you're on crutches, you won't have to worry about mowing the grass. Take care, manage your risks and keep safe.

P.S. The guy on the right is not me.

Colonel Turk Marshall Chief of Safety Lt Col Steve Wolborsky 28 BW/SE Ellsworth AFB SD

ake safety easy." Oh no, you're saying, not another safety slogan; run for the hills! However, we at Ellsworth believe this simple phrase, "make safety easy," contains the essence of an effective

vision. Let me explain why.

First, most of us have invested at least some time cogitating over "vision" during the last few years. Unfortunately, despite the best intentions, the resultant vision statements for many have often fallen into the category of glittering generalities or platitudes. While most folks can see the value in a pithy guiding light, the tough part is wrestling with just how to get there. As management consultant Tom Peters somewhat cynically points out in Thriving on Chaos:

Sadly, "visioning" has become a fad in business circles. The idea of an effective enterprise being energized and guided by a succinct and uplifting philosophy that dares everyone to take risks to realize its challenge is a compelling one - - especially as an alternative to guidance via necessarily static, 300-page strategic plans and 1,700-page policy manuals written for yesterday's placid conditions.1

Peters goes on to describe how any organization, to be effective, truly has to live its vision. In other words, posting the vision prominently on the wall won't work if the people - - especially the leaders - - don't buy into it, i.e., if they "talk the talk" but don't "walk the walk."2 Thus, the key to realizing a vision is to make it accessible. It must be directly translatable into discrete, tangible action, without additional clarifying guidance.

But what does this have to do with safety, you ask? Don't we have safety briefings and meetings all the time, semiannual safety days, information in the base paper and the squadron, etc.? Yes, we do. However, many safety advisors have a tendency to bombard our people only with safety information - what I term "coercive safety," i.e., "do this" or "don't do that" - - then hope it's implemented somehow. At Ellsworth, we argue that's not enough; we need to make it easy to act on the information. If there are ten roads folks can take, nine of them bad, we need to maximize the chance they'll take the one safe path. To do so, we either make the bad choices harder, the good choice(s) easier, or optimally, both.

But aren't we doing pretty well in choosing the safe path? Perhaps, but the current trend command-wide is troubling. ACC is certainly concerned, since the command experienced only 13 active duty, ground fatalities in fiscal year 1996 but has already had 6 ground fatalities in fiscal year 1997. There have also been a couple of permanently disabling injuries in the command in the last few months. So, perhaps there is a problem. Maybe we need to take that

# SAFETY

next step and "make safety easy." However, what does that mean exactly? A few illustrations should help explain this.

For example, we've all heard ad nauseum how we shouldn't drink and drive. A mea-

u r e safety types recommend to make that easier is to appoint a designated driver. In the military, many units have taken it a step further by providing designated drivers for unit parties, e.g., "Diamond Ride" and other similar programs. But why do some folks elect, against their better judgment, to drive impaired anyway, even when designated drivers are provided? Is it alcohol-induced impairment? Perhaps. How about a congenital death wish? Yeah, maybe in a few cases. Or...how about the difficulty of trying to find a ride back the next day to get the car? Bingo! So, to "make safety easy" in this instance, perhaps we could not only offer a free ride home, but also a free ride back the next day to pick up the car.

Another case in point, particularly relevant to those of us at northern bases, is a "safety kit" for winter driving. Recently (fall and winter), we asked audiences on our base if they had heard of these and agreed they

were important? The hands went up. Then, we asked how many folks had one in their vehicles? Most of the hands went down. As a result, we worked with the base exchange staff to collect relevant items for such a kit and display them prominently in the main store. This serves two purposes, reminding folks of winter driving hazards and making it easier for them to do something about it (or at least making it harder to ignore the problem).

This concept, while clearly applicable to ground safety, works for all safety disciplines. For instance, in the area of flight safety, detailed analyses of inflight emergencies (IFEs) can identify trends and highlight problem areas. That's good, but how about if someone at base level went a step further and looked back at the maintenance histories of IFE aircraft for signs that might have telegraphed the problem? If there is a pattern, other planes could be inspected before the system or component fails, perhaps preventing the IFE. That's better, because it "makes safety easy," or at least "easier."

However, as with anything safety related, much of the responsibility to "make safety easy" lies not only with the base safety office, but with supervisors at all levels. That's not to say safety staffs shouldn't do their part. They can certainly help with ideas or serve as facilitators. In the end, though, we all need to look at ways to "make safety easy." It's one of the best things we can do for our people.

<sup>1.</sup> Tom Peters, <u>Thriving on Chaos: Handbook for a Management Revolution</u> (1987; rpt. New York: HarperPerennial, 1991), 485-6.

<sup>2.</sup> Ibid., 486-90.

Colonel Vinnie Noto HQ ACC/SEF Langley AFB VA



ow many of you have gotten that call in the middle of the night that an aircraft is down and you have been selected to be part of the investigation team? Your mind is racing, you think you are dreaming, you have a thousand questions; but the stark voice of the senior officer on the other end of the phone says, "Pack your bags, and be at the airport in a few hours." No, you weren't dreaming; you now have a major focus shift in your life for the next 30 to 45 days. As your spouse looks at you with that 3 a.m. blank stare and tells you the base sure picks a strange time to kick off an exercise, you interrupt with: "You're not going to believe this, but I'm going to such and such, and I don't know for how long. Where are my BDU's, and is my flight suit washed? Honey, I didn't even have time to get you a birthday present yet."

There are hundreds of notification stories, and the reactions vary from calm to chaotic.

I've been the recipient of many and the perpetrator of a few. This is my story.

I was a squadron Flight Safety Officer (FSO) for several years. When I transitioned to a brand new program as an aircraft commander, I was one of the few who had any safety experience. I was selected to be the wing FSO and had spent some transition time in the wing safety office prior to heading to Norton AFB for the full safety school. The course was very challenging and one of the best Air Force courses I had ever attended. I could not at that time have placed a value on what I had learned during those months - lots of war stories about who got to do what, where, and when. I especially laughed at the poor guys who walked out the classroom door and right into a Class A mishap investigation.

I drove home on a Saturday and arrived late in the day. I kind of unpacked; you know what I mean. I had about a thousand "honey do's" to get done around the house that first weekend home. I barely had the car unpacked when I showed up for work Monday morning. My first stop was Finance (we used real money then). I got to the safety office shortly thereafter and met with my boss and mentor,



Lt Col Jim Teigen, "Mr. Safety," and Maj Bob Kolquist, our other FSO. We talked about the school, the trip, etc. I don't remember how long, but the hot-line rang and Jim said, "Get in the safety vehicle, and get out to the flightline. We have a problem." After being on the line for what seemed like an eternity, the office called on the radio and told me to get back in ASAP. I met Jim and Bob at the office door; their faces were blank. "Go home, pack your bags, and be back in 45 minutes. A bus will take you and several others to the airport. You are on your way to La Junta, Colorado. We lost a B-1 today."

Talk about a cold slap in the face. I called my wife and said, "Save all my clothes. I'll take them wet, dry, or dirty; whatever. " But as most spouses do, she had it all under control. I didn't! My mind was racing; I had a very personal stake in this. The B-1B program was very small, and I knew almost everyone who was flying the jet. Some of the thoughts racing through my mind were, "Who were they, were there survivors, where are my books, are there snakes out there? I hadn't packed my FSO survival kit yet; in fact, I had barely unpacked my car; I had soccer practice tonight; who would coach my team?" I didn't even have a dollar in my pocket! Just counting the days I'd be gone, I would miss several birthdays and Thanksgiving. I never thought this would happen so soon. I wasn't prepared. I was still sitting in my office chair with the clock ticking when Jim said, "Get out of here and get going." I went home and packed with lots of help from my wife. I gave out many hugs and kisses, told my gang of four I would miss them all and how sorry I was that I would be missing so much at home. I had a critical job to do; they all understood and would understand even more by reason of the fact that this would happen several more times since my career as a safety investigator was just beginning.

Our Resource Manager (RM) met all of us at the Wing Commander's office and gave us some advance (real money.) We also got our plane tickets and then boarded the waiting bus. The Wing Commander gave us an update, wished us all good luck and encouraged us to do our very best. The interim board was already in full swing, and I felt bad about missing my first chance at that process. However, over my career, I would do more of them than I could count. The flight to Colorado Springs went fast as we talked and read the whole way. We went over witnessing, interviewing, wreckage analysis, writing the report, our lost friends, etc. I seemed to be the source of applicable and important data. I remembered a lot from my classes, but wished I remembered more. We all read my classbooks over and over again until we landed.

The host base had done a great job preparing for our arrival. We were picked up at the airport and received a thorough, step-bystep briefing by the on-scene commander at Peterson AFB. After an hour brief, we jumped into a helicopter and were on our way to the crash site. It all happened just that fast. The wreckage was still burning when we arrived. The actual investigation itself took a long time, but that's a whole other story.

Mishaps happen, and they are almost always unpredictable. However, with war, deployments and exercises, we generally have clues they are coming. If you're trained, stay ready; your training has been well tested and proven in the field. If you are about to be trained, remember, your instructors are experts; pay close attention in class. When your base does a mishap board recall, be there and be active. It may be the only time you get to look at your books and review what you may be called upon to do. If selected, go willingly and go with an open mind. Your focus will be on the discovery of the who, what, where, when and mostly the why. What you do is important; and for those who have already served as members of an accident investigation team, what you have accomplished has been outstanding. Your recommendations have gone a long way to making our aircraft and our flying safer, making those 3 a.m. calls the exception and not the rule.

When I open my Dash-1 now, I feel good because I can say I helped write those procedures, providing a great source of pride and accomplishment. Best of luck to all who will say, "Who, me?" And "Well Done" to those who answer the call.

# Match

SMSgt Gary Reniker, USAFR 442 FW/SE Whiteman AFB MO

One man was killed and 18 others were injured on the morning of January 15, 1996, on Interstate 40 near Canton, North Carolina. The following day's issue of the Asheville Citizens Times reported that a thick wall of fog limited visibility to 15 feet, causing a chain reaction of accidents involving 46 vehicles in both directions of the Interstate. Over the years, the same section of roadway has been the scene of several bad wrecks attributed to fog. Signs in that area warn motorists to be alert to fog and to adjust their speed accordingly. However, many of the victims in the January 15 pileup said the fog came upon them suddenly and gave them little time to react.

The above incident illustrates that fog on the highway can be deadly. Fog can occur at anytime of the year, but tends to occur more frequently in the fall, winter and early spring in many parts of our country. It is often unexpected and visibility can deteriorate rapidly. You should watch for foggy conditions and be ready to adjust your driving immediately when you encounter fog on the highway.

The Defensive Driving Course (DDC) for Professional Truck Defears Manual

The Defensive Driving Course (DDC) for Professional Truck Drivers Manual, published by the National Safety Council, provides the following advice in how people should adjust their driving when encountering fog:

- Slow down and use low-beam headlights or fog lights for the best visibility; they shine downward. High-beam lights shine directly into the fog and reflect off of it, thereby reducing the driver's ability to see what is ahead.
- Turn on your headlights even in daytime fog and be alert for other drivers who may have forgotten to turn on their lights.
- Never stop your vehicle in the travel portion of the roadway.
- Pull well off the road if visibility is really bad, and put reflective warning devices in place. Use your hazard warning signal flashers and reflective devices to alert other drivers regarding the location of your stopped vehicle.

The Tennessee Departments of Safety and Transportation recommend the following additional safety tips when driving through fog:

- Avoid passing other vehicles.
- Listen for traffic you can't see.
- Use windshield wipers and defroster as necessary to maximize visibility.
- Unless absolutely necessary, don't stop!
- If you absolutely must stop [pull out of the traffic lane and on to the road shoulder if visibility permits], move away from your vehicle as soon as possible to avoid personal injury.

A lesson learned from the pileup incident near Canton, North Carolina, is "Never tailgate or be part of a train of cars moving through the fog." Moreover, the best advice for driving in fog is....DON'T!

# Beyond Belief Boy and His Bike

TSgt Robert Goering 702 CSS/DPF Tyndall AFB FL

The following is a true story written by the father of a young boy who was struck by a car while riding his bicycle. It stresses the importance of wearing a safety helmet so that the bicycle rider will be protected from serious head injury.

- Ed.

ecently, I was on my way home with my daughter, Erin, and found the road to my housing area blocked off with lots of police cars, an Emergency Medical Service (EMS) vehicle and an investigator taking pictures of a white Cadillac, but no ambulance. The police officer directing traffic told me a child on a bicycle had just been hit and killed. As I was waiting for the roadblock to open up, my curiosity took over. I asked the officer more about what had happened. He said, "Some child was riding his bicycle and got hit by that Cadillac." I asked him what the bicycle looked like, and he pointed to where it was.

Since I wasn't able to get to my home, I got out of my car and walked over to take a look at the bicycle. As soon as I saw it, I thought to myself, "That looks like my son Matthew's bike. But, there are a million kids with black mountain bikes and that one is standing on

the kickstand with only a minor scratch on the seat." So, I went over to the police officer taking notes and asked if he knew who the child was that got killed. He said "No, we're still trying to figure that out." I asked what he looked like and he responded, "a young, white boy with blond hair about so tall ... " When I heard this, I immediately had a real sickening feeling in my stomach. I told him, "Officer, I have a son that fits that description, and he has a bike like that. I live right down that street, so let me through because I want to go home and see if he's all right!"

He let me go and went with me to my house. My driveway is several hundred feet through heavy oaks and pines, so my wife couldn't hear anything that was going on. I ran into the house and said (actually I think I was hollering about this time), "Where is Matthew?" I think the tone of my voice may have concerned her. She said, "He just left on his bicycle to go to his friend's house." Somehow, I doubt if more than one or two of you can understand what hearing those words did to me at that moment. I'm glad most of you can't, and I hope you will never have that kind of experience.

Technically, Matthew was dead on arrival (DOA) when the police got to the accident scene. The car had struck his left knee with its right front bumper, flipped him over, and he fractured his skull on the roof edge of the Cadillac. Matthew had been riding on the side of the road, and the driver just got too close.

For all practical purposes, that was the end of Matthew's life. But consider this...

- a woman stepped out of the store on the corner just in time to see Matthew hit the ground. She went back in and called 911.
- 13 seconds later, the police who were only four blocks away patrolling a school zone were notified.
- 30 seconds later, they were administering CPR (Matthew was lying face down, with no pulse and not breathing).
- a lady driving the other way saw him get hit. She stopped and got out, put her hands on his head and prayed for him.

Matthew was in a coma with a fractured skull and the kool-aid he just drank was in his lungs as he was rushed to the hospital. The next morning, the neurosurgeon performed emergency brain surgery to remove a piece of the fractured skull and a large hematoma that was causing tremendous pressure on the brain. Matthew was as close as 15 minutes from hemorrhaging, which would have been certain death. Fourteen days later, I brought him home, although I still had to take him back to the hospital for rehabili-

tation for some time after that.

The words of several doctors describing Matthew's recovery have been "beyond belief" and "miraculous." His rehabilitation went very well, and he is back in school now. He is even a "ball boy" for the Gulf Coast Commodores basketball team. I am thankful for the concern, support and prayers of all my friends and family. The emergency and medical staffs have earned my heartfelt gratitude and deepest respect.

While I may be feeling particularly blessed with the outcome of Matthew's ordeal, another boy who had been next to him in the Intensive Care Unit, also with a fractured skull, was not so fortunate. His parents were faced with the agonizing decision of whether or not to keep their son on life support.

So, what are my parting comments and the moral of this story? Matthew is a miracle! So, please, please, please don't take chances with fatal or even serious head injuries.

When you and your children go biking — wear protective helmets!

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# Monthly Awards



## PILOT SAFETY AWARD OF DISTINCTION

Capt Berkely Nichols 4 FS, 388 FW Hill AFB UT

Capt Berkely Nichols was flying an air-to-ground Basic Surface Attack mission. On final for strafe, his F-16C gun

ceased firing mid-burst and all cockpit displays went blank. Capt Nichols immediately recovered the aircraft, began a climb and called "knock-it-off." Both of the mishap aircraft's Multi Function Displays (MFDs) were operable, but the Head Up Display (HUD) was blank and the Inertial Navigation System (INS) platform had failed. Soon after, Capt Nichols received a flight controls system warning with no other associated indications. After testing the caution, warning and indicator lights, Capt Nichols discovered he only had the flight control system warning, which would not reset. The leading edge flaps, speedbrakes, Data Entry Display, trim, VHF radio and both fault list displays were also inoperable. Capt Nichols went through the appropriate checklists and declared an emergency, as he flew towards Hill AFB. He received a battle damage check by number three who reported that all appeared normal. After pushing the electrical caution reset IAW the checklist, the cockpit again went black and the Environmental Control System stopped, cycled back on and then only the MFDs and HUD came back to life. Capt Nichols started the Emergency Power Unit (EPU). While setting up for a straightin, Capt Nichols attempted to lower the gear to no avail. He then proceeded direct to high key and went through the checklist for landing gear failure to extend. Capt Nichols was able to lower the gear using the down-lock release, but had no light display to indicate down and locked. A chase ship confirmed the gears appeared to be normal. After accomplishing a controllability checklist, another warning indication sounded from the voice warning system and Capt Nichols departed high key to set up for a straight-in approach. His nose gear was confirmed down and locked by the presence of his landing light. Capt Nichols successfully landed the aircraft, taxied clear and proceeded with the activated EPU checklist. Upon investigation of the aircraft, it was revealed that an extensive electrical fire occurred resulting in numerous system failures. Capt Nichols' superior airmanship, sound checklist discipline and excellent communication with flight members were paramount in recovering a multi-million dollar asset while avoiding any casualties.

## AIRCREW SAFETY AWARD OF DISTINCTION

1Lt Todd Dozier, Capt Ellis Dinsmore 429 ECS, 27 FW Cannon AFB NM



The mission was planned as a typical Operation SOUTHERN WATCH sortie. Capt Dinsmore and 1Lt Dozier had just finished the operational portion of the mission and had briefed a return to base via the "Blue Two" low level in Kuwait. They performed a normal combat descent and flew the route. Approaching the southern portion of the route, they contacted Kuwait Air Traffic Control (ATC) and started a climb for their return to base. Passing 9,000' MSL, there was a loud bang and their EF-111A aircraft yawed significantly to the left. Lt Dozier checked the engine instruments; the left engine RPM read 0%, the turbine inlet temperature was dropping rapidly and the fuel flow was near zero. He began a turn toward Al Jaber (their emergency divert base located in Kuwait), leveled at 10,000' MSL, declared an emergency with Kuwait ATC and started coordinating with his electronic warfare officer (EWO) to ensure they were in agreement with actions already taken and those remaining. They agreed that all indications showed an engine seizure rather than a compressor stall, so Lt Dozier retarded the left throttle to off and depressed the fire push-button cutting off the flow of fuel and hydraulics. Due to the possibility that their problems were the result of bird strike(s), they monitored the right engine very closely for potential problems. While on downwind at Al Jaber, they dumped fuel to decrease their landing roll. Lt Dozier called the Supervisor of Flying to ensure the runway had a departure end cable, should the crew need it. They set up on a 10-mile final and did an uneventful, single-engine, full-stop landing. Subsequent investigation revealed that a turbine oil bearing seal had failed and allowed oil to leak out resulting in the engine seizure. Although only on his second flight of his first operational deployment, the quick thinking and reactions of Lt Dozier, in concert with those of a highly experienced EWO, safely recovered a valuable asset that was much in demand in Operations SOUTHERN WATCH and PROVIDE COMFORT.

## FLIGHT LINE SAFETY AWARD OF DISTINCTION

SSgt John A. Holmes, Jr. 7 CRS, 7 WG Dyess AFB TX

Staff Sergeant Holmes was dispatched to evaluate an electrical problem on a B-1B aircraft. After a first look, he quickly ascertained that the seat actuators to the Defensive System Operator's and

er and found the circuit circuit breakers and try s tried to move the pilot amaged seat positioning in of the ACES II ejection production supervisor to ald happen again, an arc

Pilot's ejection seats were not receiving power. He located the aircraft circuit breaker panel and found the circuit breakers were popped. After reviewing the aircraft forms, he determined it was safe to reset the circuit breakers and try to position the seats using the seat positioner switch located on the console. When Sgt Holmes tried to move the pilot seat, he noticed a flash coming from underneath the seat. Further observation revealed a damaged seat positioning wiring harness. Since the vernier rocket (a class/division 1.3 explosive) is mounted on the bottom of the ACES II ejection seat and very close to this wire harness, he determined it was important to notify the flight line production supervisor to establish awareness of this potential hazardous condition. He was concerned that if this should happen again, an arc could ignite the vernier rocket motors. After reporting the problem, he notified the Wing Safety and the Quality Assurance Flight offices on this potential hazardous condition. Sgt Holmes' initiative and dedication to aircraft safety helped divert what could have been a disastrous and very deadly situation into a corrective action. His action was directly responsible for the Interim Routine Safety Time Compliance Technical Order 1B-1B-1114, Repair and Inspection of the Seat Actuator Wire Harness for all B-1B's.



## WEAPONS SAFETY AWARD OF DISTINCTION

SrA Donald T. Dickens 78 FS, 20 FW Shaw AFB SC

While deployed to Southwest Asia in support of Operation SOUTHERN WATCH, SrA Dickens was assisting with weapons post-load inspections of F-16CJ Fighting Falcons

when he noticed excessive play in one of the LAU-129 missile launchers. Upon down load of the live AIM-120 AMRAAM missile, the load crew found that two of the attachment bolts had backed out from the wing-tip of the aircraft. The missile launcher had only one attachment bolt and the electrical connector securing it to the wing-tip hard-point. The load crew removed, inspected and reinstalled the LAU-129 missile launcher. The following evening, SrA Dickens found yet another LAU-129 missile launcher loose. After finding the second launcher loose, the weapons flight supervisor initiated a one-time inspection of all installed LAU-129 launchers. The one-time inspection showed that another 7 out of 22 missile launchers had become loose during flight. The flight forwarded this information to the wing Quality Assurance Flight who then sent a message to all F-16 units within the command. Their replies showed this to be a continuing problem. These findings identified a serious defect in the LAU-129 missile launcher, which is now being studied for a possible remedy. SrA Dickens' technical proficiency and attention to detail prevented the probable loss of a combat aircraft as well as averting unnecessary risk to assigned pilots.



## GROUND SAFETY INDIVIDUAL AWARD OF DISTINCTION

SSgt Scott Boyer 366 EMS, 366 WG Mt Home AFB ID

Staff Sergeant Boyer has made significant contributions to the 366th Equipment Maintenance Squadron (EMS) Safety Awareness/Mishap Prevention Program. He

established checklists for use by the squadron compliance team members that ensured thorough inspections were conducted. In addition to newcomer orientation briefings, he developed a comprehensive safety welcome package that is provided to each newly assigned person that highlights occupational, recreational and local condition hazards. He implemented a flight safety representative training program that included training guides and continuity books to ensure uniform program management throughout the squadron. Every opportunity was exploited to spread the "safety mindset." On wing training days, he accompanied the commander and maintenance supervision members to 100% of the unit workcenters to discuss safety/training issues with flight commanders/chiefs and flight members. Sergeant Boyer designed an extensive mishap tracking database that enabled him to identify any negative trends by workcenter and demographic profile. This information was extremely useful in determining targets of opportunity for more detailed emphasis. During the 366th Wing annual ground safety inspection, his program received an "Excellent" rating and he was recognized as the 366th Wing Ground Safety Representative of the Year. Additionally, his program was identified as "Best Seen to Date" by the ACC Inspector General team during the November 1996 Quality Air Force Assessment.

#### **UNIT SAFETY AWARD OF DISTINCTION**

147th Fighter Wing Ellington Field TX

In March of 1994, a total reorganization of the 147 FW Safety Office began. A comprehensive inspection program was developed and implemented. Additional Duty Safety Representatives were recruited, trained and utilized as liaisons in the field. The inspection schedule was revitalized and balanced, using two inspections per day as a standard. Inspections were also evenly distributed to the inspectors, where in the past there was a gross imbalance.

The focus of the inspections were also revamped, to be more customer oriented. Inspections are currently developing into information sessions, constructive teaching and feedback time. Supervisors are now involved in what is happening with their Safety Program. This approach has yielded the greatest results, as evident in the decline of lost work days. In 1994, the unit lost 93 days to injuries. In 1995, the number dropped to 35. In 1996, the lost time bottomed out by reaching the "zero" lost workdays to injury plateau. This "zero" lost workday rate is a definite first. When the Air National Guard Bureau was polled, the 147th Fighter Wing was the first Guard unit to accomplish the "zero" lost workday in recent history.

The site plan package for the 147 FW was completely revised by the Weapons staff and approved by the Defense Department Explosives Safety Board (DDESB) in a minimal amount of time. The inspection criteria was redefined. Shop surveys were accurately accomplished; in short, 23 exemptions and 2 deviations were erased in 2 years. Ellington Field now operates with no deviations, no exemptions and has been commended by the DDESB on its efforts in Weapons Safety compliance. The changes have been so dramatic at Ellington Field that in November 1995, after being inspected by 1 AF, the Safety staff received a Superior Performance Award as well as a "Best Seen to Date" from the QAFA inspection team.

The Flight Safety Program at Ellington has proven itself to be a superior performer. In times of threat to national security, the 147 FW was called into action. The crisis in Cuba was met by the 147 FW. The unit was ordered to deploy to Key West, Florida, in minimal amount of time, fully loaded and ready to stop any act of aggression or air space incursions. The unit was tasked with maximum sorties production throughout Operations SENTINEL LIFEGUARD and STANDOFF FOUR without a single safety or flight-related incident. In the war on drugs, the unit responded with support of Operations CORONET NIGHTHAWK, in which the unit maintained 24-hour alert with minimal manning and maximum real-world scrambles; once again, without any safety or flight incidents. The unit, due largely to its excellence during realworld tasking and its flight safety record, has been awarded the Texas Governor's Award for its role in the deployment to Key West, Florida. As further proof of the unit's superior flight safety performance, the unit has now completed another year without a Class A or B flight incident and has not had a command-controlled incident since 1956. Furthermore, FY 96 was a fantastic year for the unit's flying history. In FY 96, with a plethora of tasking, the unit has completed 4,792.3 flying hours, to include state and federal counter drug missions, and flew 3,428 sorties without a Class C reportable flight incident.

The 147th Fighter Wing is a superior organization and fully deserves recognition at the highest level. Its safety record is outstanding and without equal, a total achievement of each and every member of the wing and the extremely hard working Safety staff.



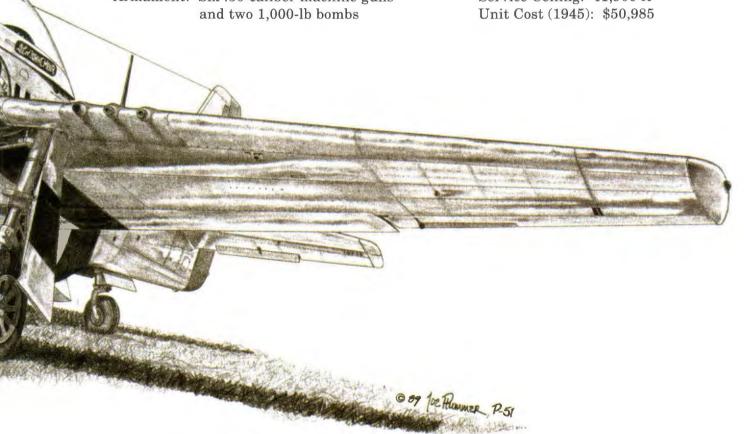
The North American P-51 Mustang first entered combat over Europe in December 1943, providing high-altitude escort to the B-17 "Flying Fortress" and B-24 "Liberator." By the end of World War II, the P-51 had destroyed more enemy aircraft in the air than any other fighter in Europe. The Mustang served in nearly every combat zone, including the Pacific where it escorted the B-29 "Superfortress." During the Korean Conflict, P-51Ds were used primarily for close support of ground forces until withdrawn from inventory in 1953.

#### **Statistics**

Span: 37 ft 0 in Length: 32 ft 3 in

Armament: Six .50-caliber machine guns

Maximum Speed: 437 mph Maximum Range: 826 nm Service Ceiling: 41,900 ft





# SAFETY CHECKLIST

Fire Warning Systems

Home fire safety checklist

- \* Is there at least one smoke detector on each floor and one near each bedroom area?
- \* Do you have at least one ionization and one photoelectric smoke detector to alert your family to smoky fires and flaming fires that produce little smoke?
- \* Do you replace smoke alarm batteries twice a year with long-lasting, 9-volt lithium batteries?
- \* Do you have a carbon monoxide detector to detect deadly gas produced by fuel-fired furnaces, space heaters, wood stoves and fireplaces?

#### **Preventing Fires**

- \* Do you have your heating systems and chimneys inspected and cleaned regularly?
- \* Do you have non-flammable chimney screens or mesh spark arrestors that are 1/2 inch in diameter or smaller?
- \* Are trash and other items placed far from furnaces, space heaters, hot water heaters, fireplaces and other sources of heat?

- \* Do you have protective shutters or fire-resistant draperies on your windows?
- \* Do you avoid overloading electrical circuits?
- \* Are electrical cords kept out from under rugs or furniture?
- \* Have you replaced frayed cords?
- Do you unplug small kitchen appliances when they're not in use?
- Does everyone in the home know how to put out a small kitchen grease fire safely?
- \* Do you enforce a strict "no smoking in bed" policy?
- \* Do you empty ashtrays or fireplace embers into metal containers when they are cold
- \* Do you keep matches and lighters out of children's reach?
- \* Do you store gasoline and other flammable liquids in the proper metal or non-flammable containers? Do you keep these containers away from heat sources?
- \* Have you removed barbecue grills from wooden decks?

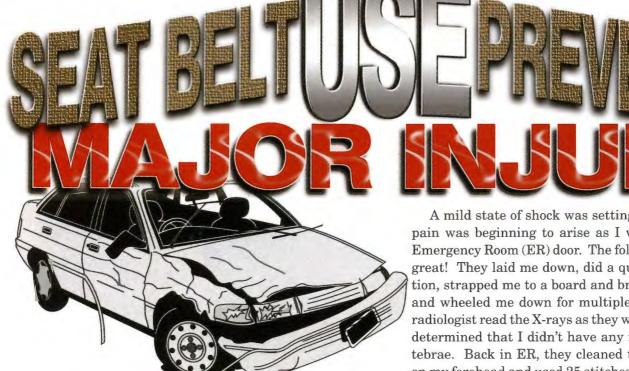
#### Fire Safety Plan

- \* Have you discussed a fire safety plan with your family?
- \* Do you store working flashlights in every bedroom?
- \* Does everyone know where to meet after escaping a fire?
- \* Have you had a home fire drill?
- \* Do you have an escape route from a second floor (i.e., a foldable ladder)?
- \* Do you keep all stairways, doors and other exits clear of furniture or other obstructions?
- \* Do you tell babysitters what to do in case of a fire?
- \* Is there at least one "ABC" type fire extinguisher available in an easy-to-reach location where there is a potential for fire (kitchen, basement and garage)?
- \* Have you recorded your home and possessions with photos or video tape? Do you have a copy stored in a safe-deposit box?

#### Wildfires

- \* Is your house number and/or name clearly posted at the driveway entrance or mailbox, sign or curb?
- \* Are your fire tools, ladder and extinguisher readily available for emergencies?

- \* Are decks, porches and other raised extensions (such as eave vents)
  protected with fire-resistant materials, or screened to keep out sparks?
- \* Does your driveway allow easy access for emergency vehicles (i.e., curves are not too sharp for fire trucks)? Is there adequate width (18 to 20 feet) and height (15 feet) clearance?
- \* Does your driveway have an exit or a turn-around large enough say 50-feet in diameter for emergency vehicles?
- \* Has vegetation been cleared within 3 feet of fire hydrants?
- \* If you don't have a fire hydrant nearby, is there a water storage tank with a fire hose adapter available for fire fighters' use?
- \* Is there a swimming pool on the premises, do you have a gas-powered pump for wetting your roof and vegetation? If you evacuated, would you leave the pump gassed and set up at the poolside for fire fighters?
- \* Is your roof made of fire-resistant, noncombustible materials such as asphalt, tile, slate, asbestos or concrete shingles or metal?
- \* Are exterior walls brick, stone or other fire-resistant materials?
- \* Is electrical wiring installed underground, or are trees trimmed to avoid overhead wires?
- \* Have you cleared at least 30 feet of space (100 feet on sloping lots) around your home? Is it free of dry grass, underbrush and dead wood?
- \* Have you removed trees growing through porches, decks or roofs?
- \* Are there fire-resistant plants around your home?
- \* Are the lower branches of trees taller than 18 feet pruned within 6 feet of the ground?
- \* Have the trees around your house been further pruned to avoid limbs hanging over the roof or chimney outlet?
- \* Do you keep gutters and roofs free of dead leaves, pine needles and other debris?
- \* Do you store firewood at least 50 feet from your house?
- \* Have you met with local officials to ensure that load limits on bridges are at least 40,000 pounds to accommodate fire-fighting equipment?



Lt Col Jim Lewis

Shaw AFB SC

609 COS

o one ever thinks they're going to get into an automobile accident - - I certainly didn't. Fortunately for me, I got in the habit of wearing a seat belt years ago because I never trusted the "other guy." When I got in my pickup truck last Wednesday morning, buckled the belt, started the engine and set off to work as I do every day, I never expected that I might actually need the safety belt. Just as I was approaching the turnoff to the base, I lost consciousness due to a pre-existing medical condition, and my truck found its mark squarely on the solid, brick "Shaw Air Force Base" sign on Route 378.

Witnesses told me that I was probably going between 25 and 35 mph when I impacted the sign. The first thing I heard as I regained consciousness was someone asking me if I was all right. I knew immediately that I had blacked out while driving, but I felt okay and told him I was fine. He replied "you're bleeding pretty bad," and as I put my hands to my head I could feel the blood. He asked if I had something to wrap around my head, which I did, and he told me he'd take me to the hospital. As we pulled away, I could see that my truck appeared to have lost the encounter with the Shaw sign.

A mild state of shock was setting in and some pain was beginning to arise as I walked in the Emergency Room (ER) door. The folks in ER were great! They laid me down, did a quick examination, strapped me to a board and braced my neck and wheeled me down for multiple X-rays. The radiologist read the X-rays as they were taken and determined that I didn't have any fractured vertebrae. Back in ER, they cleaned the laceration on my forehead and used 25 stitches to close it up. The X-rays were inconclusive as to a possible fracture of my sternum, so I was admitted overnight for observation.

Soreness was beginning to set in throughout my entire upper body, and I was told more than once ..."today you feel like you were in a truck accident, tomorrow you'll feel like you were hit by a truck." Indeed, I was quite sore the next day when the doctor released me. I stopped to look at the sign on the way home, and the only tell-tale sign that it had been involved in an accident were the pieces of broken glass and plastic at its base. A quick stop to where they towed my truck revealed that it definitely hadn't fared so well -- the whole front end was crushed.

What I had suspected up to this point was now verified. I was extremely fortunate to be walking out of the hospital one day after my wreck with only some stitches on my forehead and a sore sternum and ribs. Without my seat belt, the outcome would have been much worse. I would have been thrown through the windshield and would undoubtedly have suffered major injuries. For everyone out there who says they know someone who survived an automobile accident because they weren't wearing a seat belt, here's one who knows he avoided more serious injury because he had one on! The next time you get in your car, buckle up. It may not even be the "other guy" you have to worry about. Seat belts work!

# Aircrew Awareness

Major Brad Robert HQ ACC/DOSBW Langley AFB VA and 📙

As we prepared this article for

As we prepared this article for print, one of our stalwart aviators recently had a very "close encounter of the feathered kind." Thanks to his dual visors, he may not like what he sees in the mirror; but he's still there to see it! Remember to put your visors down!

Ed.



The above photos depict an F-16 bird strike

#### **BASH** (Bird Aircraft Strike Hazard)

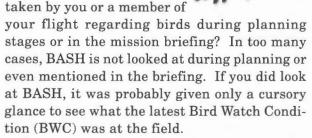
hile flying low level in Wales in an F-15E (the greatest fighter in the world), my jet struck a mallard duck in the center of the windscreen. The force shattered the canopy resulting in both my Weapons Systems Officer (WSO) and me being showered with glass and bird parts and blasted by a 450 knot wind. My WSO took the brunt of the force while I was slightly more protected up front. Unsure of the status of the jet or my condition, my WSO initiated ejection. The sequencing handle was in the "Norm" position, so I remained in the jet. Our story turned out okay. My WSO made a safe parachute landing and I recovered the jet to a local British air base. Results: One dead duck and a Class B Strike-Eagle.

Did we do something to deserve this? No. Was our mission planning complete? Yes. Was there anything else we could have done to prevent this bird strike? No. Or was there? After further investigation, it was revealed that in Britain there are quite a number of "game estates" where birds are raised and then released during "shoots" to high-paying customers. It happened that we hit a duck directly over a group of hunters on one of these estates during a shoot. Even further investigation revealed these hunting locations are known by the Royal Air Force (RAF) but not plotted or tracked in any way.

The key to possibly avoiding this type of mishap is AIRCREW AWARENESS. Awareness on everyone's part can decrease the chances for bird strikes. In 1995, ACC experienced 519 bird strikes at a total cost of \$591,843. However, in the past 10 years ('86-'95) ACC experienced 9,806 bird strikes at a total cost of \$269,077,663. The latter figure includes a couple of Class A mishaps. These high costs quickly add up. The question is: How many other close calls have there been which could have easily ended in a Class A?

Obviously, we can never completely eliminate bird strikes; but through better management and increased aircrew awareness, the total number of bird strikes can be reduced. Aircrew awareness is the primary aspect I will discuss. By increasing aircrew awareness and improving requirements regarding BASH, the number of bird strikes can be reduced.

The first and most logical place to begin is with mission planning. Think about your last sortie. What actions were



An aircrew must become more aware of the environment in which they are flying. They must take active measures to understand where birds are typically a problem and what actions can be taken to reduce the chances of a bird strike occurring to them. The first place to look is the Bird Avoidance Models (BAMs). These contain historical bird activity for certain areas or low level routes. BAMs are developed by the Air Force Safety Center (AFSC) BASH Team and distributed to units who request them. Although some BAMs contain old information, they are definitely a good place to start.

Several bases have revised the BAMs and developed their own system for ease of use during mission planning or while inflight. One example is Seymour-Johnson (SJ) AFB's "Egg-Shell Brief." SJ gathers information from the BAMs, research conducted by Geo-Marine, Inc. (GMI), local bird strike historical data, time of year and so on and produces a monthly memo to warn aircrews of what hazards they can expect to experience on certain low level routes, ranges or local flying. SJ's Egg-Shell Brief is so well liked that several local bases, including Oceana NAS, Cherry Point MCAS and the Richmond VA Air National Guard regularly receive SJ's information.

Another example comes from Ellsworth AFB SD. Ellsworth gathered information from the BAMs and other historical data and developed a 1-page insert for their aircrew aid to show bird strike potential. They created a table listing frequently used low level routes, ranges and

MOAs down the left side and the 12 months, further broken down into day/twilight/night across the top. Within the table, they inserted simple happy/neutral/sad faces to depict possible flight conditions. This model provides a quick one-stop guide for aircrew to gather general information while planning.

Again, the key is aircrew awareness and the willingness to use the information provided. However, once the mission is planned and you are out there on the low level, a different scenario may arise. Just because the BAM or other similar guide told you the bird condition would be low, you may be the unfortunate soul to be on a collision course with a flock of birds that happened to not file a flight plan that day. Okay - it was a near miss. What now? Once you survive your close encounter, it is YOUR responsibility to ensure other aircraft flying along the same route know what hazards exist. This responsibility extends beyond telling other members of your flight. Aircrews must get the word back to later flights.

The simplest way to ensure other aircraft receive the information is to call the Supervisor of Flying (SOF) so he can pass the word on, possibly even closing a particular route to low level flight. Unfortunately, once you are on a low level or range somewhere, you are generally out of radio range from the SOF. What other options do you have? You can use Air Traffic Control (ATC), the Range Control Officer (RCO) or, if the situation warrants, make a call on Guard frequency. Many aircrew are reluctant to use Guard, but is it worth hundreds of thousands of dollars of damage or even the loss of an aircraft just so "the entire world" won't hear you make a warning call about a bird hazard on Guard? Remember, civilians use Very High Frequency (VHF); generally, only military aircraft will hear your call.

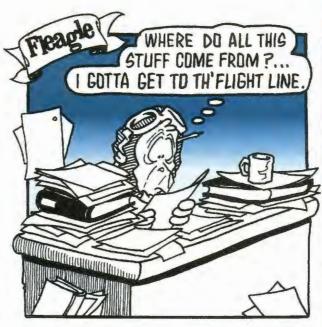
Your final actions should take place after you land. It is your responsibility to ensure any unusual activity is reported to the SOF and Flying Safety Officer. This will allow appropriate actions to be taken on the local flying schedule and allow any possible trends to be tracked by the Safety office.

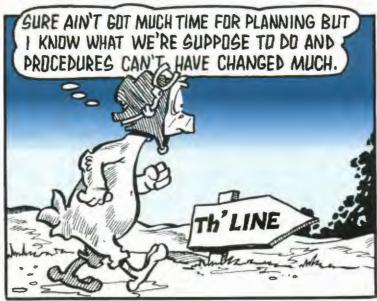
There are several key research projects currently underway which may provide new information on bird migratory patterns and concentrations. The first is being conducted by GMI. GMI recently completed a major research project at Dare County Range in North Carolina regarding bird patterns. Much data has been collected and is currently being studied. One development has shown how one species of swan follows a completely different migratory route than previously believed, possibly going through low level routes previously believed to be at low risk. These same migratory routes may apply to many other migratory species. Other research conducted by GMI has shown that certain birds may not fly at altitudes previously believed, possibly flying at altitudes regularly used by aircraft. Once further research is conducted, more information will be available to help determine actions which may need to be taken during low level operations. GMI is also conducting a similar research project at Moody AFB GA.

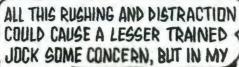
Another research project has been in the use of Next Generation Weather Radar (NEXRAD) to track bird positions. NEXRAD can actually "see" birds on the system; however, these returns are filtered out to declutter the scope. Research is being conducted to take this filtered information and send it to a separate terminal to allow tracking bird positions and patterns so that advisories can be passed to aircrews.

The final product of all the research being conducted will hopefully be safer skies due to better knowledge of bird habits. If flying operations can be handled with a higher awareness of bird hazards, then we can conduct operations with a more direct focus on other hazards which may be presented to us. The result will be better overall training for our aircrews.

In the end, until you, the user, decide to put forth the effort to review what information is available and plan accordingly, current research projects will be a waste of time. All of the information in the world will be of no use if it is not utilized correctly. Spending a few extra minutes planning and briefing will benefit everybody and possibly save valuable assets. Remember, aircrew awareness is part of everyone's responsibility and is key in helping to avoid bird strike mishaps.

















QUESTIONS OR COMMENTS
CONCERNING DATA ON THIS
PAGE SHOULD BE
ADDRESSED TO HQ ACC/SEF,
CAPT "E.T." MOORE
DSN: 574-7031

CAPI E.I. MOURE	-	
DSN: 574-7031	THE	RU JAN
	FY9	7 FY96
CLASS A MISHAPS 2	5	3
AIRCREW FATALITIES 1	11	0
k IN THE ENVELOPE EJECTIONS 0	3/0	3/0
k OUT OF ENVELOPE EJECTIONS 0	0	0

ACC						
JAN	THRU JAN					
UAIT	FY97 FY96					
1	1 1					
0	0 0					
0	0	1/0				
0	0 0					

CANG							
JAN	THRU JAN						
JAIN	FY97	FY96					
1	3	2					
1	1	0					
0	3/0	2/0					
0	0	0					

CAFR						
JAN	THRU	RU JAN				
UAIT	FY97	FY96				
0	1	0				
0	10	0				
0	0	0				
0	0	0				

## 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
ACC	FY 97	0	0	0	0.6								
OAF	FY 96	0	0	0	0	0	0	0	0	1.2	1.0	1.7	1.5
8 AF	FY 97	0	0	0	0								
0 4 5	FY 96	0	0	0	0	0	1.1	1.0	0.8	0.8	2.1	1.9	1.8
9 AF	FY 97	0	0	0	1.7					7			
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
IZ AF	FY 97	0	0	0	0								
DDII	FY 96	0	0	0	0	0	0	0	0	0	0	0	0
DRU	FY 97	0	0	0	0								
CANC	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
CANG	FY 97	0	3.8	2.6	3.3								
CAFR	FY 96	0	0	0	0	0	0	0	0	0	0	0	0
CAFR	FY 97	0	6.3	4.2	3.1								
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
IOIAL	FY 97	0	1.9	1.3	1.7								
MON	ГН	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP

(BASED ON HOURS FLOWN)

<sup>\* (</sup>SUCCESSFUL/UNSUCCESSFUL)



# Units without a "Command-Controlled" Class A flight mishap since the stand-up of ACC on 1 Jun 92, or their respective assimilation into the command.

5 BW	122 FW	150 FW	419 FW
24 WG	123 AW	153 AW	440 AW
28 BW	124 FW	156 FW	442 FW
55 WG	125 FW	165 AW	482 FW
79 TEG	129 RQW	166 AW	509 BW
85 GP	130 AW	167 AW	$552\mathrm{ACW}$
93 BW	132 FW	169 FW	908 AW
94 AW	133 AW	174 FW	910 AW
102 FW	136 AW	175 FW	911 AW
103 FW	137 AW	177 FW	913 AW
104 FW	138 FW	179 AW	914 AW
106 RQW	139 AW	181 FW	916 ARW
109 AW	142 FW	184 BW	926 FW
113 WG	143 AW	185 FW	928 AW
114 FW	144 FW	187 FW	934 AW
116 BW	145 AW	189 AW	939 RQW
118 AW	146 AW	301 FW	
119 FW	147 FW	314 AW	
120 FW	148 FW	403 AW	

As of 1 Feb 97

## Nuclear Surety & Weapons Safety Journal:

## Affordable Safety Information You Should Use

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

ure, there is plenty of safety information available out there. On the Internet, in weapon system technical orders, in MAJCOM safety magazines and newsletters and even in some Air Force Instructions. Of course, to use this valuable information you first have to find it, sort it and evaluate it to make sure it is applicable to your Nuclear Surety Program. This process is both time consuming and expensive. It is a good thing there is the Air Force Special Publication 91-3, Nuclear Surety & Weapons Safety Journal.

Every quarter, since the early 1970s, the Nuclear Surety Journal (or as it is known today as the Nuclear Surety & Weapons Safety Journal) focuses on significant nuclear issues and provides articles on people's real-life nuclear experiences. By using the information contained in the journal, you can learn from their mistakes as well as find and implement solutions to common nuclear surety program problems. The Air Force Safety Center (AFSC) publishes the Nuclear Surety & Weapons Safety Journal to assist managers who have nuclear surety program supervisory or inspection responsibilities. Through the journal, the AFSC staff provides nuclear surety program policy, philosophy and guidance clarification. For example, last quarter's journal contained articles on nuclear certified equipment, weapon system safety rules, security, operations, maintenance and the Personnel Reliability Program. Additionally, AFSC routinely includes Defense Special Weapons Agency and MAJCOM IG crossfeed items. Some managers are doing an excellent job of using this information. However, recent nuclear surety inspections indicate many managers are either not aware this information is available or they do not know how to use it.

One thing is certain, the deficiencies found in wing nuclear surety programs today are the same ones found during past inspections. This can be attributed to a lack of awareness at all levels on the importance of using the information in the *Nuclear Surety & Weapons Safety Journal* to enhance wing nuclear surety programs. One of the most useful but overlooked areas is the "Inspect-O-Grams" section. As the title suggests, this section contains a laundry list of findings from the previous quarter's MAJCOM Nuclear Surety Inspection reports. There is no better way to learn the requirements of the Nuclear Surety Program than from other units' findings.

I know! I know! This notion sounds so alien to some of you that you can hardly imagine such a thing - - learning from other people's misfortunes. But if you use this information, the benefits will be apparent immediately. Admittedly, some of the articles and inspection findings may be of no particular significance to your local program, but most are. Adherence to standards is an important element of the Nuclear Surety Program.

Managers at all levels must ensure the widest distribution of the Nuclear Surety & Weapons Safety Journal and its use in mishap prevention programs. It is appropriate for work centers in DP, SG, SP, LG, CE, and DO to receive 1 copy per 10 readers. You can get on distribution or increase the number of copies you receive by contacting your local Publications Distribution Office (PDO). So remember, save yourself some time and money by making it a habit to review and distribute the Nuclear Surety & Weapons Safety Journal every quarter; then eliminate known deficiencies from your program. You're not just doing it for the wing; you're doing it to make the Air Force Nuclear Surety Program stronger.

MSgt Steven P. Peña, Sr. 436th Training Squadron Dyess AFB TX

s the ACC Weapons Safety instructor at Dyess AFB, I often use actual events as a teaching aid. Covering the required material from our safety instructions alone would fill the requirement, but I prefer to carry the process to the next level. You may wonder, what is the next level? As we go through the events leading up to the incident,

We were on a deployment for training with 6 aircraft and approximately 60 personnel. I was the deployed Weapons Safety NCO. We arrived at our location, set up and bedded down. While deployed, I was tasked to manage the weapons safety program. This included watching munitions personnel build munitions, weapons loaders load the aircraft and, of course, doing anything else that was needed.

ask yourself one question: "Would I be prepared

for a DAY like this?" Here's the mishap as it

unfolded.

The munitions personnel were building bombs and rockets for the scheduled frag. The aircraft were being prepped for flight and the flying commenced. During the second or third day of flying, it was decided that an incentive ride would be given to

> one of the maintenance people. Using the democratic method of selection, everyone's name was thrown into a hat and a name was drawn. The selected individual (a close friend) was taken to life support, issued the required equipment and given egress training. Shortly after egress training, they stepped out to the aircraft.

The incentive rider was flying in the second aircraft of a four ship with an alert photographer in the third. I was helping the aircraft crew chief prepare the aircraft for flight. Engines started, the aircraft took off and everything went as planned. The sortie lasted approximately 1.2 hours, and the aircraft returned from flight with no problems. As the number two aircraft taxied back to the parking ramp, we noticed the incentive rider kept bending over in his seat. We all figured he was sick. This was a normal assumption, since we believe the pilot's job is to give incentive riders the real ride of their life. As the aircraft turned into the parking spot, the individual was still bending over, attempting something; but we couldn't tell just what. As the aircraft came into the parking spot, we checked the tires and rolled the aircraft forward for final tire inspection, prior to shutting the aircraft down. The incentive rider was still bending over. I had chocked the left main landing gear and was watching the number one engine, waiting for it to spin down. And then it happened!...

I was standing approximately 10-15 feet from the aircraft, when out of the corner of my eye I saw a bright orange flash and heard an explosion. Immediately everything went into slow motion (it seemed like it took an hour for everything to unfold, when it actually occurred within a few seconds). The aircraft canopy separated from the aircraft and very slowly passed over the tail. It landed on the ramp, rolled and ended up standing on its end. I turned to look into the cockpit to see what had happened; the right seat of the A-37 was gone. I remember being afraid and thinking, "What goes up must come down." I looked up, where's the seat? I turned and looked over my left shoulder just in time to see the seat with my friend still in it, about 35 feet above the ground. About that time, the seat man separator initiated and threw him from the seat. He and the seat landed about 300 feet in front of the aircraft on the taxiway. As soon as he hit the ground, everything went back into real time again.

Everyone was going crazy and didn't know what to do next. Several people ran out to the taxiway and checked on the individual. I recall the crew chief saying that he was trying to talk to him, but the flight Doc said that he was so busted up that it was just his last bit of life. We impounded the aircraft where it sat; and by the time the mishap board arrived, we had all the statements and charted maps of the mishap site prepared for them. The investigation determined the individual had been bending over trying to put the seat safety pin in place. He couldn't reach it because the seat safety harnesses wouldn't allow him to bend far enough to insert the safety pin. He eventually rotated the seat handles trying to pull himself down to insert the pin. This action caused the seat to fire and exit the aircraft.

The "worst day of my life" came to a close when all the deployed personnel lined the loading ramp as my friend's casket was loaded on a C-130 for the trip back home. Would you be prepared for a day like this?

I use this mishap to impress upon my students the importance of knowing what to do before a mishap ever happens. When one does occur, there's no time to try and figure out what to do next! We have the guidance, knowledge and training to complete the mishap investigation process; however, in the heat of the moment, you will find that time is crucial and your actions must become second nature.

#### **Editorial Comment**

This is a truly tragic story. Getting an incentive ride could and should be a wonderful experience. As one who has given many an incentive ride, I am amazed that we could let this happen. The two absolute most important things when taking someone on an incentive ride is to make sure they know clearly how the ejection system works and how to stay off the flight controls. I know this from experience and intuition; some people obviously don't. That brings me to my point, when we rely on experience and intuition, something is likely to slip through the crack and end up causing a mishap.

Fortunately, we have a better way now to be proactive and prevent mishaps. It is called Operational Risk Management (ORM). With ORM comes simple to use tools and a systematic method to identify hazards and develop control measures to minimize the risks. If someone had taken some time to think through the incentive ride program and see where the hazards were, then apply measures to minimize or eliminate the risks, this person would probably still be alive today.

It doesn't take a brain surgeon to realize the incentive program is a risky business. In this incident, when you start weighing the benefits gained through the incentive program against the costs, the answer was clearly that the benefit was not worth the risk. Don't get me wrong, I am in favor of incentive programs; but we must remember to weigh the benefits against the risks. The only way to keep the incentive program alive is to make the risks so small that the benefits of offering one of our professionals a ride in an aircraft are clearly greater than the risks. The way to accomplish that is to carefully go through all of the six ORM steps. That means finding the hazards, prioritizing the risks and developing and implementing fixes that lower or eliminate the risks — starting with the highest priority risks.

I can't help but wonder how many other potentially disastrous outcomes are waiting for us to eliminate with ORM. Let's take a look at the risky things we do, apply ORM principles to reduce the risk and save someone else the horror of watching their friend die.

> Colonel Thomas B. Poole Chief, Operational Risk Management

