

# THE COMBAT EDGE

JANUARY 1996



M. Bailey '95

# The Combat Edge

AIR COMBAT COMMAND  
SAFETY MAGAZINE

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## CONTENTS

**JANUARY 1996**

ACC SP 91-1

VOLUME 4

ISSUE 8

### FEATURES

#### 4 FLY, FIGHT, AND WIN

Colonel William R. Looney, III  
Commander, 1st Fighter Wing  
Langley AFB VA

#### 28 INSIGHTS INTO FORWARD BASE DEPLOYMENTS

Although deployments to various trouble spots throughout the world are "old hat" for many Air Force units, we must remember that not everyone in the unit may be a deployment veteran. As we constantly add new people to units, we need to be aware of their lack of deployment experience and the potential for problems. Adequate preparation, proper training, and effective leadership will give people the best chance to safely accomplish whatever mission they're tasked with.

### DEPARTMENTS

FLIGHT SAFETY

8 22

GROUND SAFETY

24 31

WEAPONS SAFETY

25

DEBRIEF

10

AWARDS

12 26

FLEAGLE

6

ACCOLADES

7

#### ABOUT THE COVER

On this month's cover we feature the 72d Helicopter Squadron, assigned to the 1st Fighter Wing, Langley AFB VA. The squadron will inactivate in March 1996. The helicopters are used to transport dignitaries and for rescue operations. The 72d HS's history dates back to the WW II era when it was established as the 72d Liaison Squadron April 2, 1943, at New Cumberland Army Air Field, PA.





# Accent on Safety

**G**reetings and Happy 1996 to all! Welcome back from the holidays.

Before you slip out the door for your first sortie of the new year, let me remind you that, historically, January is one of our most hazardous months of the year. The holidays afforded many of us the opportunity for extended leave and time off from the job. A lengthy holiday sometimes tends to relax the mind too much and jumping right back into a fast pace in early January could prove unwise or even fatal. Believe it or not, there are a myriad of subtle differences in our frame of mind, focus, and abilities that may not be readily apparent when we return to work. In addition, some of our people, unfortunately, may not have had an enjoyable holiday season. Also, some people may be experiencing post-holiday depression and/or stress.

Do you catch yourself in the "back to work" syndrome, wishing that your time off or leave had lasted just one more day? Whether you realize it or not, you're not as good as you were when the holidays started. Your limitations are not the same as they were. You also have to consider that you're not the only one who may be a little behind. Everyone else is experiencing a gradual return to their normal operating abilities as well. Common sense must prevail — if you're not ready to run... WALK! Get your G-tolerance, your driving legs, munitions handling procedures, etc., back before you go full bore. There is no peacetime need to assume unnecessary risk.

January also brings serious winter weather conditions to many bases in ACC. How will that affect you? Have you thought about the changes that should occur in your normal routine: More clothes to keep you warm, longer preflights, more time needed to taxi out due to ice and snow? Or, do you act as though nothing has changed?

Accurately assessing your personal abilities and the impact of changing weather conditions on your daily activities is a result of personal discipline. Good discipline starts with adequate preparation before you ever step into the briefing room. Honestly acknowledging your personal flying and operating limitations is just as vital as being aware of and adequately planning to counter enemy threats during combat. In either case, if you fail to deal with the threat, the results can be disastrous.

All of you working on the flightline and around the base as crew chiefs, security police, supply folks, and everyone else have just as many challenges from the weather. Everyone needs to take into account how the hard conditions of winter will affect their duties and mission accomplishment. Take that few extra minutes to consider all the ways weather conditions can impact your daily routine. Remember, "The road to a mishap is always kept in good repair."

*Colonel Zak Tomczak  
Chief of Safety*

# FLY FIGHT and WIN



*Colonel William R. Looney, III  
Commander, 1st Fighter Wing  
Langley AFB VA*

**W**e currently live in exciting and yet dangerous times. Just think of the unprecedented world events of the past five years — the fall of the Berlin Wall; reunification of Germany; Operations DESERT SHIELD and STORM; Operations SOUTHERN WATCH and PROVIDE COMFORT, collapse of communism in Eastern Europe, breakup of the Soviet Union, continued struggle for peace in the Middle East, and the rise of nationalism leading to a civil war in Bosnia-Herzegovina. These history-making events coupled with the current Armed Forces' downsizing and restructuring present commanders with unique challenges in maintaining our combat mission capability. Dwindling numbers of people, aircraft and spare parts put heavy demands on our warrior team. Increased deployments and a seemingly non-stop operations tempo can take its toll on pilots, maintainers

and-support troops. Here in the 1st Fighter Wing (1 FW) our mission is to gain and maintain air supremacy and we WILL accomplish the mission. The mission will always be paramount, but doing it as safely as we can is a critical component in effective mission accomplishment.

The 1 FW is no stranger to a high ops tempo. Uniquely structured with geographically separated units, the 1 FW has three F-15 fighter squadrons, one UH-1N helicopter squadron, one air control squadron, and a C-21 flight at Langley AFB VA. The 1st Rescue Group, an important part of our team, operates out of Patrick AFB FL, and is composed of one HC-130 squadron and one helicopter squadron flying the new HH-60G weapon system. The Wing's resources are constantly deployed to different parts of the world. Our fighter squadrons help maintain air supremacy over southern Iraq and our HC-130s and HH-60Gs provide rescue capability throughout Southwest Asia. Our Air Control Squadron provides contingency support necessary for deployed operations. At the same time, F-15s are deployed to Iceland in support of NATO requirements while our UH-1 and C-21 units provide round the clock transportation for VIPs and dignitaries. Squadrons deploying for flag exercises, WSEP and other



contingencies are also challenges faced by the Wing. With so many people deployed to all parts of the globe, doing our job safely is a formidable task.

How do we accomplish our mission safely? The main focus of honing our combat capability starts at home with our training. We must train the way we fight and fight the way we train. For the pilot it does not include just flying the sortie. It includes in-depth flight planning, mission risk assessment, briefings and debriefings. This is not just a one-man show. It takes a well-trained team of men and women to get that airplane flying. Every person in the Wing plays a vital role in keeping our team combat ready. Pilots cannot fly without good maintenance. Maintainers cannot repair airplanes unless they have the proper supplies and training needed to keep the aircraft flying. For our FSOs, it means completing formal training and being aggressive program managers. They are the eyes and ears of the commander and must speak up if a possibility of safety compromise exists. Constantly training and doing our jobs the right way the first time leads to our mission being achieved safely. If we can minimize mistakes and learn not to make those mistakes again, we continually improve our combat readiness. We practice hard at home so if the balloon goes up, we are ready to go and can deploy quickly and safely.

Geographically separated units present a great challenge to our safety office. The 71st and 41st Rescue Squadrons' specialized mission of combat rescue is a completely new concept for the 1 FW. The new scope of operations including the transition to the HH-60G airframe creates a steep learning curve for Wing members. Prior to July 1995, the three squadrons at Patrick fell under different groups for chain of command questions and concerns. This caused difficulties with budget, equipment, communication and accountability — all safety concerns. In July 1995, the 1st Rescue Group stood up creating a single chain of command with direct access to the Wing Commander and staff including safety.

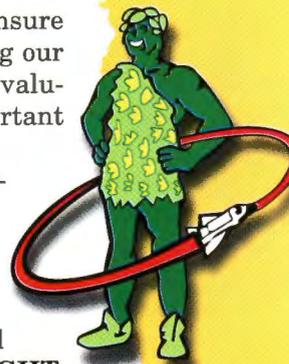
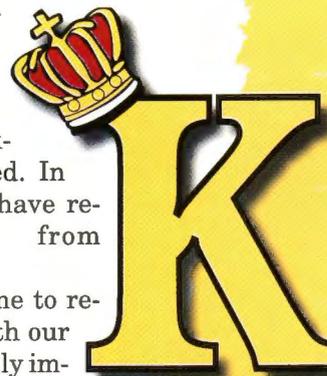
We do our job safely and we do it well. Frequent deployments and long work days while at home station are now the status quo. It's important for all commanders to ensure we do not overburden our people unnecessarily. In the 1st Fighter Wing, we find we have more than enough real world deployments and higher headquarters training taskings to keep us busy - there-



fore, we no longer search for off-station training opportunities. Additionally, we do not hesitate to raise our hands and ask for relief when we feel our tasking threshold has been exceeded. In each and every instance, we have received superb support from headquarters.

After we work hard, it's time to relax and spend quality time with our families and friends. It is equally important to remember our internal support structure. Taking care of the home front and knowing things are all right at home is one less worry for the member who is deployed. High morale is an integral factor in safely accomplishing our job. We must also ensure that we do not get careless during our relaxation. People are our most valuable resource. Safety is as important at home as it is on the job.

We cannot forget that the mission will always be priority one. Safety is an essential and critical part in fulfilling the mission. We can always go out and fly and fight. But if we do it safely, we will come back another day to **FLY, FIGHT, AND WIN!** ■



# CRASH !!

*Lt Pete Wojihowski  
944 FW  
Luke AFB AZ*

Seatbelts save lives and prevent injuries. This is a proven fact. However, since FY 92, the non-use of seatbelts by Air Force members has been increasing. In FY 95, 45 Air Force people were killed as a result of 4-wheel vehicle mishaps. Seventeen of the 45 who died were not wearing their seatbelts — 38 percent non-use! DoD and USAF instructions mandate 100 percent use of vehicle-equipped occupant protective devices (seatbelts, shoulder harness, etc.) by military members regardless of duty status, yet 38 percent of the Air Force's fatalities failed to comply. We are negligently killing Air Force people. It should be readily apparent that the simple action of "buckling up" will save lives!

Here is the story of one of those who survived not buckling up.

It was graduation day from high school and the entire class of 33 graduates held an all night party at the ocean. As the sun was just starting to rise over the water, everyone was asleep on the beach. Two guys, who were best friends and had come to the party together, decided it was time to go home and get a few more hours sleep before starting their summer jobs as service station attendants. Heading down the road, the driver felt a little sleepy. Suddenly the passenger screamed as the

driver narrowly missed a rather large oak tree while speeding along at 50 miles per hour. Confident that this near collision would keep him awake, the driver continued down the road breathing a huge sign of relief. Approximately 5 minutes later while making a right hand turn coming out of town, the driver once again nodded off. This time the passenger was also asleep. **CCRRRAAASSSHHHH!!!!** The car hit a small oak tree at approximately 10 miles per hour. The driver sustained only minor injuries, despite hitting the steering wheel with his upper jaw and nose. He was wearing his seatbelt. The passenger, however, was not wearing a seatbelt and went through the windshield. He ended up in front of the car, on the grass lying in a pool of blood. His injuries included a concussion, severe lacerations to the face and a sprained knee — all from exiting the vehicle head first. The passenger eventually recovered from his injuries but only after months in the hospital. The passenger was lucky. If the car had been going 10 miles per hour faster, he probably would have died. I think about that many times. You see, I was the driver of that vehicle.

Whenever you drive, please wear your seatbelt and insist your passengers wear theirs — it could make a difference in your life too! ■

# ACCOLADES

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

|                             | TOTAL |          |      | ACC |          |      | ANG |          |      | AFR |          |      |
|-----------------------------|-------|----------|------|-----|----------|------|-----|----------|------|-----|----------|------|
|                             | NOV   | THRU NOV |      | NOV | THRU NOV |      | NOV | THRU NOV |      | NOV | THRU NOV |      |
|                             |       | FY96     | FY95 |     | FY96     | FY95 |     | FY96     | FY95 |     | FY96     | FY95 |
| CLASS A MISHAPS             | 2     | 3        | 1    | 1   | 2        | 1    | 1   | 1        | 0    | 0   | 0        | 0    |
| AIRCREW FATALITIES          | 0     | 0        | 0    | 0   | 0        | 0    | 0   | 0        | 0    | 0   | 0        | 0    |
| * IN THE ENVELOPE EJECTIONS | 2/0   | 3/0      | 0    | 1/0 | 2/0      | 1/0  | 1/0 | 1/0      | 0    | 0   | 0        | 0    |
| * OUT OF ENVELOPE EJECTIONS | 0     | 0        | 0    | 0   | 0        | 0    | 0   | 0        | 0    | 0   | 0        | 0    |

\* (SUCCESSFUL/UNSUCCESSFUL) (OCT MISHAP NON-RATE PRODUCING)

## CLASS A MISHAP COMPARISON RATE

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

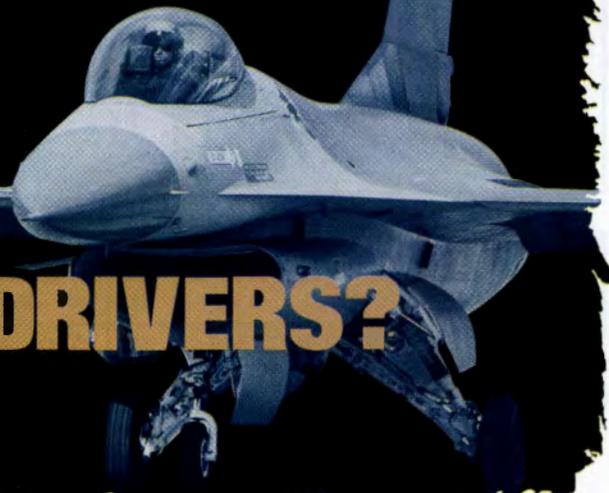
|       |       |     |     |     |     |     |     |     |     |     |     |     |     |
|-------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| ACC   | FY 95 | 2.1 | 1.1 | 0.7 | 0.6 | 0.9 | 1.6 | 1.6 | 1.7 | 1.6 | 1.6 | 2.3 | 2.0 |
|       | FY 96 | 0   | 1.0 |     |     |     |     |     |     |     |     |     |     |
| 8 AF  | FY 95 | 0   | 0   | 0   | 0   | 1.8 | 1.5 | 1.3 | 1.1 | 1.0 | 0.9 | 1.6 | 1.5 |
|       | FY 96 | 0   | 0   |     |     |     |     |     |     |     |     |     |     |
| 9 AF  | FY 95 | 0   | 0   | 0   | 0   | 0   | 1.2 | 1.0 | 0.9 | 0.8 | 0.7 | 1.9 | 1.8 |
|       | FY 96 | 0   | 0   |     |     |     |     |     |     |     |     |     |     |
| 12 AF | FY 95 | 6.5 | 3.3 | 2.3 | 1.7 | 1.4 | 1.2 | 2.0 | 2.6 | 2.4 | 2.1 | 2.6 | 2.4 |
|       | FY 96 | 0   | 2.9 |     |     |     |     |     |     |     |     |     |     |
| DRU   | FY 95 | 0   | 0   | 0   | 0   | 0   | 5.3 | 3.7 | 3.5 | 3.3 | 5.6 | 5.6 | 4.9 |
|       | FY 96 | 0   | 0   |     |     |     |     |     |     |     |     |     |     |
| ANG   | FY 95 | 0   | 0   | 0   | 0   | 0.8 | 0.7 | 0.6 | 1.0 | 1.4 | 1.6 | 1.5 | 1.4 |
|       | FY 96 | 0   | 1.9 |     |     |     |     |     |     |     |     |     |     |
| AFR   | FY 95 | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 1.3 | 1.2 | 1.1 | 1.0 | 0.9 |
|       | FY 96 | 0   | 0   |     |     |     |     |     |     |     |     |     |     |
| TOTAL | FY 95 | 1.3 | 0.7 | 0.4 | 0.3 | 0.8 | 1.1 | 1.1 | 1.5 | 1.4 | 1.5 | 1.9 | 1.8 |
|       | FY 96 | 0   | 1.2 |     |     |     |     |     |     |     |     |     |     |
| MONTH |       | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |

(BASED ON PROGRAMED HOURS FLOWN)

# WHAT

# KILLS

# VIPER DRIVERS?



*LtCol Kurt "2-Lips" Dittmer  
388 FW/SE, Hill AFB UT*

**A**s often as we brief "Special Subjects" such as channelized attention and spatial disorientation, it gets more and more difficult to hold our audience's attention. I found some interesting information in Maj Ken McMillan's ACC/SEF "F-16 Crash Book" — a collection of all USAF Class A's in the F-16 from 1975 to May 1995 — that may give you the attention step you need the next time you brief and fly.

In the Crash Book, there have been 91 times when acts of God, maintainers, and/or engineers have tried to kill F-16 pilots. Included in this total are 7 birdstrikes, 9 electrical/flight control failures, and a total of 76 engine mishaps due to material and maintenance failures.

Guess how many times Viper pilots died when someone tried to kill them? The answer is 1 — a flight control malfunction that caused a pitch over with too little altitude to eject successfully. (There was 1 non-pilot fatality when a crew chief was sucked into an intake bringing the total to 2 fatalities out of 92 mishaps.)

So we lost 91 valuable combat assets, but F-16 pilots pretty much know when to get out if an airplane isn't working right.

The statistics due to operator error are another story and bear some closer scrutiny.

### Operator Factor Mishaps

There have been a total of 36 operator related mishaps when an F-16 pilot lost control, ran out of gas, or screwed up a landing — 5 of these resulted in fatalities. In most of these cases, something went wrong, the pilot realized it (even if he never realized he caused the problem), and went for the handles in time to eject (Fig 1). F-16 pilots do have a will to survive — when they make a mistake like running a jet out of gas, they don't ride it in to avoid the certain scrutiny of their actions. No, they punch out. So what kills F-16 pilots?

It is in the next 4 categories of operator factor mishaps that we have killed the most pilots. There have been 67 mishaps involving mid-air collisions, "G"- loss of consciousness (G-LOC), spatial disorientation

| OPERATOR        |           |          |           |  |
|-----------------|-----------|----------|-----------|--|
| Type            | Number    | Fatal    | Eject     | Eject OOE*<br><small>* Out of the envelope</small> |
| Landing         | 6         | 0        | 2         | 0  |
| Loss of Control | 11        | 0        | 11        | 0  |
| Fuel Management | 5         | 0        | 5         | 0  |
| Other           | 14        | 5        | 7         | 1  |
| <b>Total</b>    | <b>36</b> | <b>5</b> | <b>25</b> | <b>1</b>   |

FIGURE 1

(spatial-D), and channelized attention. Of the 67, 51 were fatalities (Fig 2).

Breaking it down further shows some more disturbing information. The 20 mid-air collisions had 11 fatalities (4 from unsuccessful ejections) and 26 total successful ejections. (The numbers don't add up because some of the mid-airs involved 2 F-16s.) The lessons to learn concern element deconfliction, visual lookout, contract break-downs, etc. Mid-airs are worth an entire article, but for now let's look at the other three special subjects — G-LOC, Spatial-D, and channelized attention, because statistically your odds of dying are higher.

### G-Loss of Consciousness

Out of 10 G-LOC mishaps, 9 resulted in fatalities. Six of the incidents occurred while the pilot was defensive - 2 were high aspect. All of these probably had the pilot looking back over the shoulder pulling "G"s. Only 1 mishap involved a pilot who was offensive... but then he was on an intercept ride and probably wasn't anticipating the G's he pulled.

The lessons to learn are: anticipate "G," watch G onset rates, and perform a proper, timely Anti-G Straining Maneuver (AGSM). In addition, increase your G tolerance through exercise and reduced life-style stressors. Also remember, "Combat Edge" does not prevent G-LOC.

### Spatial Disorientation

There were 17 mishaps categorized as attributable to Spatial-D — 13 were fatalities. Two incidents were single ship, 1 was as a flight lead... the rest, 14, involved wingmen. Only 1 mishap was in day and visual meteorological conditions (VMC) — the rest were at night or in instrument meteorological conditions (IMC) or both.

In general, Spatial-D mishaps involve someone flying a perfectly good airplane into the ground — probably never realizing they

were doing it. Spatial-D is channelized attention in a lot of respects... you may have to channelize to fly off the wing of the tanker in IMC and your head senses you are riding through barrel rolls. You fix the disorientation by cross-checking flight instruments — and believing them. If you still can't overcome the effects, you're supposed to admit it to your flight lead. Lead should fly straight and level for 30 to 60 seconds and provide attitude information until your symptoms go away.

If the symptoms don't go away, lead can do a position change to allow the wingman to fly instruments. The last resort is to go lost wingman though the lost wingman procedures are disorienting themselves. Rarely have the cases of Spatial-D been fessed up to. However, at least 7 pilots recognized their situation, because they ejected. Unfortunately, 3 of those ejections were out of the envelope and resulted in fatal injuries.

### Channelized Attention

Channelized attention is the last and biggest killer. Of the 20 mishaps attributed to channelized attention, 18 were fatalities. Eleven flight leads and 9 wingmen were involved, so it can happen to anyone. Twelve mishaps occurred during the day and 16 of the 20 were in VMC. Probably the most significant trend is that 17 mishaps occurred while on air-to-ground sorties.

From this information it should be apparent that channelized attention mishaps normally happen to someone who is accomplishing an intensive task at low altitude. To stay alive, you must know what's important and where to direct your attention. Aviate, navigate, and communicate.

Aviating includes knowing where your jet is going during a radar missile defense at low altitude. It doesn't matter that you broke your adversary's lock if you mort yourself flying into a ridgeline. If tactical events are taking all of your attention, then knock-it-off. Heads down at low altitude is not conducive to long life.

So, the answer to "What kills F-16 pilots?" is: We kill ourselves. That's why we brief the special subjects and that's why they're important. ■

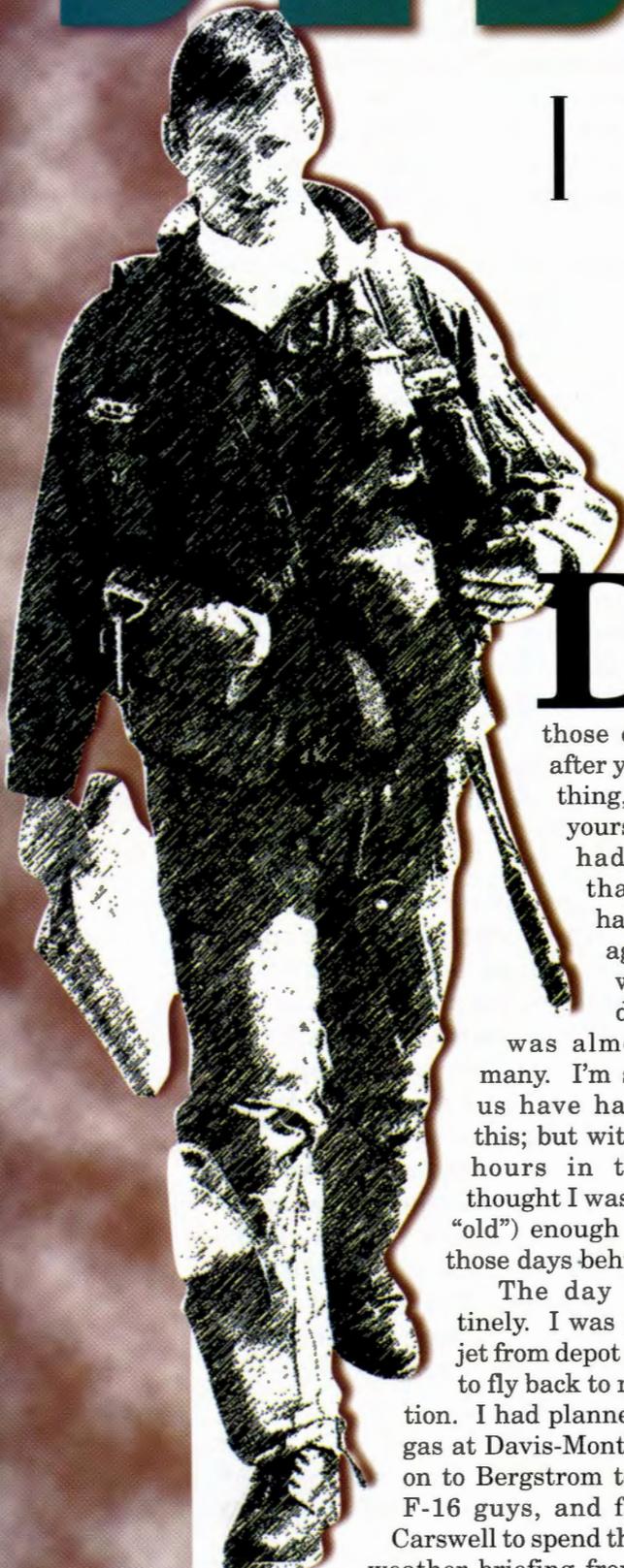
| OPERATOR               |           |           |           |            |
|------------------------|-----------|-----------|-----------|------------|
| Type                   | Number    | Fatal     | Eject     | Eject OOE* |
| Mid-air                | 20        | 11        | 26        | 4          |
| G-LOC                  | 10        | 9         | 1         | 1          |
| Spatial Disorientation | 17        | 13        | 4         | 3          |
| Channelized Attention  | 20        | 18        | 2         | 0          |
| <b>Total</b>           | <b>67</b> | <b>51</b> | <b>33</b> | <b>8</b>   |

FIGURE 2

# DEBRIEF

## I WISH I HADN'T DONE THAT...

*Maj Jim Preston  
303 FS/DOT  
Whiteman AFB MO*



**D**id you ever have one of those days where, after you did something, you said to yourself, "I wish I hadn't done that"? Well, I had one 2 years ago, and the "I wish I hadn't done that" was almost one too many. I'm sure most of us have had days like this; but with over 2,000 hours in the A-10, I thought I was smart (read "old") enough to have put those days behind me.

The day began routinely. I was picking up a jet from depot at McClellan to fly back to my home station. I had planned to stop for gas at Davis-Monthan, then go on to Bergstrom to talk to the F-16 guys, and finally on to Carswell to spend the night. The weather briefing from McClellan

was that everything would be good; CAVU at Davis-Monthan, 12,000 broken and 10 miles visibility at Bergstrom, and the same at Carswell. When I got to Davis-Monthan, I found out that they were in the middle of an ORE, with all of their fuel trucks committed to the exercise. I hadn't checked with Base Ops before leaving McClellan. **[I wish I hadn't done that!]** I got a verbal weather update which added a 6,000 foot scattered deck in Texas, and finally got airborne 1 hour and 20 minutes later than planned.

Believe it or not, I got 420 knots ground speed out of my Hog on the way to Bergstrom. I needed to get there early enough to talk to the F-16 guys before they left for the day.

Fortunately, they were working a little late anyway, and I got to meet the folks I needed to. I was still in a hurry, however, because I needed to get to Carswell before I had a night sortie to deal with; so I didn't update my weather briefing. **[I wish I hadn't done that!]** I got my clearance, which didn't bear any resemblance to the stopover flight plan I'd filed and taxied. Being in a hurry didn't help, because I took off before I really had time to make sure I understood the details of the clearance. **[I wish I hadn't done that!]** I'm airborne, trying to figure out my clearance, heading toward the Dallas-Fort Worth area, when they start me down 30 miles out. With all the radio chatter, I decided not to ask to leave the frequency to get the ATIS. **[I wish I hadn't done that!]** I did

ask for the weather, fully expecting something like what I had just left, and rapidly inhaled 8 pounds of seat cushion through the wrong orifice when the controller replied, "200-400 foot ceilings, partially obscured, 3/4 mile visibility." You mean I'm going to have to shoot this approach for real?

The cockpit was filled with flailing arms, open charts, approach plates on the floor, and the blue smoke of obscenities coming from my quickly overloading brain. Then they told me I'd have to hold for at least 10 minutes due to traffic flow in and out of Dallas-Fort Worth. Now, you single-seat types... how long has it been since you've really had to hold, other than on a checkride? It's been at least 11 years for me, so I was slightly concerned. (Slightly? Yeah, right!) The INS and my altitude/heading hold autopilot were working, but I couldn't get the TACAN to lock on and I had "off" flags in the ILS displays. After pulling the utility light over to the right console, I could see that I had the wrong TACAN channel set, so I fixed that. I entered holding, still trying to get the ILS to come up. I finally got the cockpit organized (a little) and sorted through my options. Well, I really need 300/1 to shoot the approach. I could divert back to Bergstrom, but their Transient Alert left an hour ago. I've got the gas to go just about anywhere, but where do I want to go? Why does it feel like I'm upside down? This is starting to sound like the beginning of an accident report. **[I wish I hadn't thought that!]** I called for a more current observation. The controller said that the weather was still up and down between 200 and 400, with the visibility from 3/4 to 1 1/2 miles. I figured that was all I needed to begin the approach; so when he gave me a vector to intercept the final approach course, I took it, even though I still couldn't get the ILS to come up. **[I wish I hadn't done that!]** When the controller said that I wasn't intercepting the inbound course, I answered, "I'm having a little problem with my instruments... can I get another vector back around?" **[I wish I hadn't done that!]** He said, "No problem" and gave me a left turn to a fix on the low chart, which I couldn't find at the moment. At about that time I'm thinking maybe I should go somewhere else. I asked the controller for a clearance to Bergstrom. His tone seemed to indicate some questioning of my abilities, but his reply was, "How about if I give you another shot at the approach... if you can't get it straightened out, I'll have a clearance to Bergstrom for you." I agreed to go ahead and try it again.

I don't know how, because I didn't touch any-

thing different in the cockpit, but the ILS "off" flags went away, and I got the needles to resemble reality. The controller said it looked like I was intercepting the course and handed me off to tower. I told him to "keep an eye on me" and went ahead and changed frequencies. The needles were dead center and not moving. I thought this is either the best ILS I've ever flown, or this system is really screwed up! I made a slight turn to the left, and hallelujah, the needles moved! At 600 feet AGL, I could see the ground directly below me, but nothing at 12 o'clock. Those lights seem awfully close! I hope that mall has a drive-through window. However, the radar altimeter and the baro altimeter both agreed. At about 400 feet AGL, I turned off the landing light to see better forward, and there were the approach lights. I made a slight course adjustment and landed. Tower asked me what my conditions were on final. I chose to disregard that request and told them the flying conditions instead. (They were better off not knowing what **my** conditions were.)

Walking into Base Ops later on, I thought about how many times I'd read very similar scenarios in accident reports. Here was a high time instructor pilot pushing the limits of common sense. On any given day this could have been a piece of cake sortie; but combinations of several circumstances made me feel incredibly overtasked, to the point of wondering if I'd be parking the jet in a handicapped slot at the mall on short final. The chain of events was long enough for me to recognize that things were not going as I'd planned pretty early on. I could have stopped this whole episode at several points along the way, but kept thinking that things would work out. It's funny, but until that time I'd considered myself pretty fortunate to get to where I am now, and I've become very conservative over the years. (Or I thought I had.) I was lucky to have the chance to reevaluate my habit patterns and my preparation techniques; how many folks are not around anymore because they made the same kinds of mistakes? Too many. **I sure wish they hadn't done that!**

■

*Editor's Note: Respondents to our reader survey suggested that we publish more "There I Was..." lessons learned type stories in a section called "Debrief." Well, "you asked for it; you got it." "Debrief" debuts with an outstanding article from Maj Jim Preston -- thanks Jim. Send us your stories and lessons learned so we can publish the type articles you want. If you feel you need anonymity to tell the story -- it's yours. If you have questions or comments -- give us a call. Get those stories in the mail; we're waiting for them.*



# PILOT SAFETY AWARD OF DISTINCTION

*Maj Brian D. Maas, USAF WS/WST, Nellis AFB NV*

Maj Maas briefed and flew an A-10 2-ship dissimilar air combat training (DACT) mission that ended with an emergency single engine landing at Indian Springs Air Field. The mission was a normal weapons school syllabus mission flown to the 60 series ranges against two F-18 Hornets. After the first merge at approximately 19,000', Maj Maas started a right hand descending defensive turn. During the turn Maj Maas picked up a F-18 disengaging from his wingman, Canon 2, and attempted to engage the Hornet. The bandit recognized the engagement and executed a right descending pirouette. Canon 1 executed a descending barrel roll to maintain position on the bandit. Wings level still in the descent Maj Maas noticed a slight yaw to the right but nothing else unusual and continued to employ two Fox 2s on the bandit. The engagement terminated and Canon 1's Left Engine Hot light and Left Oil Pressure light illuminated. After the knock-it-off call, Canon 1 turned toward Indian Springs Air Field and then identified the left engine interstage turbine temperature (ITT) was 1,100 degrees C and the left engine oil pressure was 30 psi. Maj Maas retarded the throttle to mid-range and the engine did not respond. He then started reading the checklist for engine failure and the left engine fire light illuminated. Maj Maas investigated for a fire and found high ITT to be the only indication of a fire. He then executed the boldface for engine fire shutting down the left engine and discharging the left fire bottle. The fire light extinguished after approximately two minutes, and Maj Maas executed the engine fire checklist and single-engine landing checklists while setting up an approach into Indian Springs. Maj Maas performed an alternate landing gear extension and executed a flawless single-engine landing. He brought the aircraft to a halt at mid-field and performed an emergency ground egress. Maj Maas' superb airmanship brought a severely crippled A-10 back to a safe and uneventful landing.



## CREW CHIEF EXCELLENCE AWARD

*TSgt Gail A. Flynn, SSgt Robert P. Sullivan,  
A1C Michael P. Orlowski, 55 FS, 20 FW, Shaw AFB SC*

The mishap occurred as an A-10 from the 55th Fighter Squadron, assigned to the 4404th Wing (Provisional) at Al Jaber Air Base, Kuwait, was being readied for combat search and rescue status alert in support of Operation SOUTHERN WATCH. The A-10 was fully loaded for combat—two 500-pound MK-82 bombs, two AGM-65 Maverick missiles, two AIM-9 air-to-air missiles, seven white-phosphorous rockets and plenty of 30mm in the gun. During engine start, fire suddenly erupted from the number two engine as a burning pool of fuel quickly formed under the aircraft. Sergeant Sullivan, as the acting fire guard, immediately reacted and fought the growing flames with the Halon fire extinguisher he was manning; but the fire soon proved to be too intense. Sergeant Flynn, the flightline expediter, reacted without hesitation to the situation and ensured the base fire department was notified while providing timely and decisive direction to her ground crew as they fought the blaze. Airman Orlowski, the dedicated crew chief, expertly analyzed the situation and saw that the single extinguisher in use was having little effect on the flames. He sprinted 100 yards away to grab another fire extinguisher, returned to the burning aircraft, and continued fighting the blaze. The combined effect of both extinguishers was eventually enough to put out the fire. The base fire department arrived on the scene only moments after the fire was out and took control of the situation. The highly effective teamwork exhibited by these three flightline personnel was crucial in saving a multi-million dollar aircraft and preventing collateral damage to two combat-loaded aircraft in the immediate vicinity.

# AIRCREW SAFETY AWARD OF DISTINCTION

*Capt Mark Llewellyn, Capt William Fisher  
429 ECS, 27 FW, Cannon AFB NM*



"We were number one of an EF-111 two-ship, call sign Sandy 01. Within nine minutes of low-level entry, we lost both Multi-function Display (MFDs). We elected to press with the mission as the weather was VMC (severe clear), we had good SA on the route, and all other navigation systems were functioning normally. In approximately two more minutes, we initiated a climb to 9,000' MSL in a simulated Target Area Support attack near the town of Willard, New Mexico. Once there, we lost the right generator and attempted to reset it. When it failed to reset, my pilot called a Knock-it-Off. We turned left to approximately 120 degrees following the route corridor.



"Two minutes after the 'Knock-it-Off' call, we lost all electrical power. The emergency generator did not come on line. No smoke or fumes were present, and no circuit breakers (that is ones that

were visible to the crew) were popped. Turning East towards Cannon we rocked our wings to rejoin our wingman. I began running the 'Complete Electrical Failure,' Checklist. We were able to talk to each other by dropping our oxygen masks and yelling over the engine noise. When Sandy 02 rejoined to our right wing, we signaled HEFOE for electrical failure and passed him the lead. We maintained route position until final approach. My pilot commented that the aircraft was very nose heavy, but controllable. This was due to a significant amount of nose down trim left over from the 510 knot low level. I consulted the 'Double Generator Failure' and 'Loss of Essential AC Bus Power' checklists, looking for any information which might help. The Emergency Generator switch was set to ON, and the plunger (the Emergency Generator Indicator/Disconnect switch) was down. The dampers and all nonessential electrical systems were turned off. Anticipating other failures or flight control problems which may put the aircraft out of control, we also referred to the 'Before Ejection' checklist.

"After about six minutes of total electrical failure, I cycled the Emergency Generator plunger, and the Emergency Generator finally came on line. Now we were able to talk to Sandy 02, who was already coordinating with Albuquerque Center. We explained the problem and our plan to follow them on a wing approach to landing at Cannon. To better match speeds and AOA on the approach, both aircraft dumped fuel from 18,000 to 9,000 pounds, allowing for a slower approach speed.

"Sandy 02 contacted the SOF and explained the situation. We discussed the possibility of bringing the dampers back on line. Referencing the Dash 1, the SOF concluded that the dampers may be turned on and reset. My pilot turned on all three dampers and pressed the reset button, but the dampers did not reset. He also unsuccessfully attempted to remove the nose down trim using the Aux Pitch Trim switch. Additionally, we only had the standby instruments.

"We requested to have a slow descent to configure on a 20-30 mile final to facilitate an aircraft controllability check with sufficient altitude. Sandy 02 directed the formation approach over the radios in a very deliberate and controlled manner and called out the final approach speeds as we neared touchdown. The standby airspeed indicator showed about 10 knots faster than his calls. Because of the nose down trim, normal aerobraking stab authority on landing rollout was not available. Brakes were applied at the 3,000' remaining marker at approximately 100 knots on the standby airspeed indicator. We taxied clear and parked in the hot brake area. Recovery crews noticed smoke around one of the tires, so we expeditiously shut down the engines and egressed the aircraft."



## UNIT SAFETY AWARD OF DISTINCTION

*2d Munitions Squadron, 2 BW, Barksdale AFB LA*

Charged with maintaining a diverse stockpile, the Strategic Weapons Maintenance (SWM) Flight rises to the challenge of performing all required maintenance while meeting or exceeding the highest safety standards. Over 700 AGM-86B Air Launched Cruise Missiles, AGM-129 Advanced Cruise Missiles and B-83 gravity weapons comprise the Barksdale inventory along with their associated launch vehicles and loading adapters. In the average week, as many as five weapons packages need to be moved from storage to the Integrated Maintenance Facility or to the flight line. Dense pack storage conditions compound the task. As constructed, the storage structures were intended to contain 24-32 missiles with approximately 18 feet of separation between packages. Due to increased mission requirements, the structures now house 40 missiles each, resulting in as little as 6 inches of separation between packages. Storage conditions, complexities involved with operating a MHU-196/M munitions trailer, and the inherent explosive and chemical hazards involved with munitions combine to create situations abundant with opportunities for mishaps.

In spite of the difficult conditions, the SWM Flight has sustained a safe and nearly flawless pattern of performance month after month. These practices paid off during the first week of October when the 2 BW underwent a HQ ACC Nuclear Surety SAV. It came as no surprise when the SWM Flight set new standards for excellence and safe Technical Operations. Professional performers, such as SSgt Sheri Hibbs and SrA Paul Key and Kenneth Jackson, smoothly worked through recovery actions after an Empty Pylon Test prematurely aborted. SSgt Robert Kidder and team members SrA Jason Weldon and Jaime Mendez accomplished a Limited Life Component exchange with no procedural discrepancies. Overall, Technical Operations were the best to have been evaluated in over four years.

Performance such as this cannot be achieved through occasional compliance with technical orders or casual adherence to safety standards. Continuous training, tech order compliance, awareness and motivation culminate to produce superior results and mishap-free operations. The nature of the mission demands the highest safety standards, and the SWM Flight, 2 MUNS will continue to meet the challenge of exceeding the standards for weapons safety.



## GROUND SAFETY AWARD OF DISTINCTION

*TSgt Ronnie J. Taylor, Sr., 20 CONS, 20 FW, Shaw AFB SC*

In addition to TSgt Taylor's normal duties as a Contracting Specialist, he was tasked with establishing a unit safety program for the newly formed Contracting Squadron in April 1992. With no previous safety experience, Sergeant Taylor single-handedly established a squadron-level program and also developed a comprehensive job safety program for each flight within the contracting Squadron. To further enhance Sergeant Taylor's safety program, he implemented a safety briefing program designed for 100 percent contact with unit personnel. Sergeant Taylor uses innovative methods to ensure the "safety message" is heard by all. He makes use of the squadron's intercom system to provide weekly safety briefings, increasing his audience while reducing inconvenience to them. Especially noteworthy is his use of this method prior to three-day weekends so that squadron personnel depart work in the right frame of mind. Also, the method he developed for tracking all written safety information ensures every section chief is presenting safety awareness information to their people. Sergeant Taylor continually strives to provide a safe workplace for all and has identified and corrected numerous safety deficiencies. He procured and installed mirrors in every hallway to eliminate blind spots and reduce collisions; increased the number of fire extinguishers to provide improved access to all personnel, and purchased rubber mats that have eliminated several potential tripping hazards in the squadron. In over four years of operation, the payoff for the effort Sergeant Taylor has put into the safety program is only three non-reportable mishaps and zero reportable mishaps.

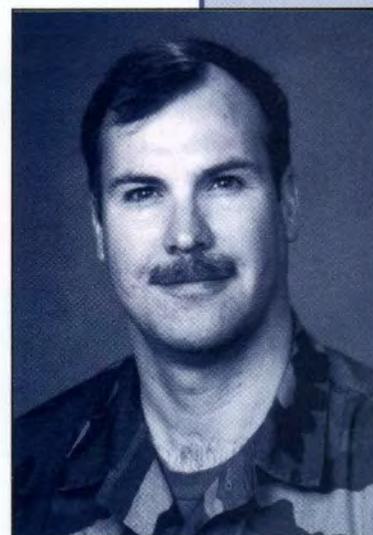
# FLIGHTLINE SAFETY AWARD OF DISTINCTION

*MSgt Donald J. Pince*  
*388 OSS, 388 FW, Hill AFB UT*

Over the past year, MSgt Pince has been a key player in ensuring the safety of 388 FW aircraft. As the End of Runway (EOR) supervisor, he is ultimately responsible for that critical "last chance" look at the aircraft before takeoff.

His situational awareness was crucial when a wing aircraft departed the EOR area to take the active runway. MSgt Pince noticed a small puddle of hydraulic fluid where the aircraft had been parked and immediately stopped the taxiing jet. Upon further inspection, it was discovered that the F-16's nose-landing gear strut seal had started to leak and would almost certainly have been depleted by the time the aircraft returned for landing. When the maintenance crew arrived at EOR to tow the aircraft back to the ramp, he insisted the nose strut be reinflated prior to the tow, minimizing further damage to the strut. On one occasion, a transient C-141 cargo aircraft (transporting an ICBM) developed an electrical fire in the cockpit, resulting in a ground emergency adjacent to the EOR pad. As the senior person in the area, he immediately took control of the situation and repositioned his EOR crew out of harm's way. He then coordinated with the Maintenance Operations Center to relocate the EOR operations to an alternate taxi way, enabling all 388 FW aircraft to meet their scheduled takeoff times.

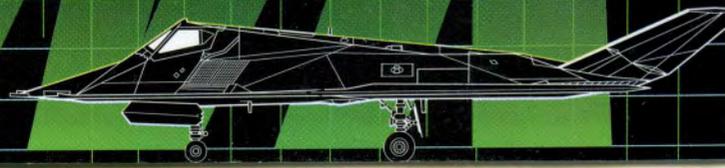
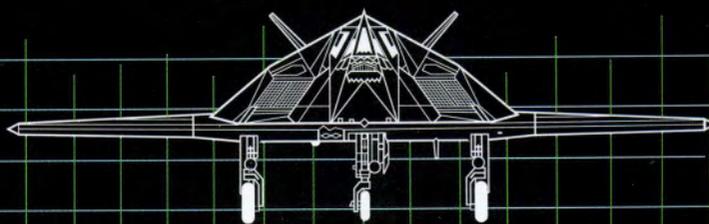
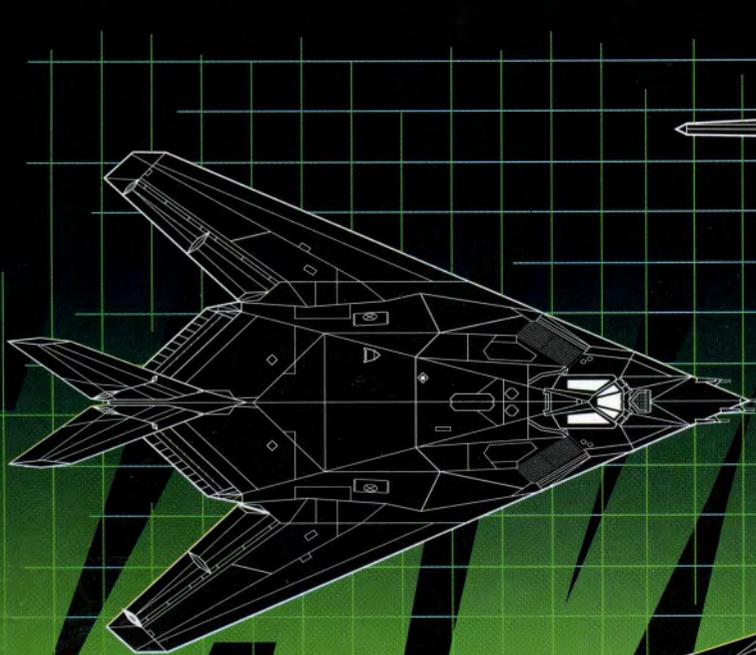
Another incident occurred at EOR when an inexperienced mechanic was securing access panels that were within inches of the intake area of the running aircraft. MSgt Pince immediately removed the individual from the inlet danger zone. He subsequently reminded all assigned personnel on the dangers of job complacency, informing them of another incident where a mechanic had been ingested into the intake and killed while accomplishing a similar procedure. He now includes this subject in his weekly safety briefings for EOR assigned personnel. When 388 FW aircraft were scheduled to depart for their Southwest Asia (SWA) deployments, he personally supervised the late-night launch of both the 4 FS and 34 FS aircraft, ensuring airworthy jets would take to the skies on their overseas trek. His direct involvement and correction of several aircraft deficiencies resulted in all deploying aircraft taking off on-time and in the best possible condition. His abilities to manage personnel are extraordinary. He has continually provided quality EOR support while keeping the wing's mission in the forefront, even though manning was cut by a third. He formulated a viable plan that ensured EOR operations continued to run smoothly, safely, and efficiently while one of the wing's fighter squadrons was deployed to SWA. MSgt Pince's constant situational awareness, direct involvement, leadership and management skills, and impeccable judgment have been routinely lauded by the 388 FW Safety staff.





**F-117A**

**NIGHT**



# 1995 INDEX

Editor's note: The following index of articles is provided in an effort to make it easier for our readers to tap the reservoir of knowledge contained in *The Combat Edge*. We receive numerous requests throughout the year concerning past articles or artwork. Many times, the requests are quite vague concerning title, author, subject or issue and often necessitate laborious research through past magazines. This index was compiled so that *The Combat Edge* could continue to be a valuable source of information to our readers.

Index entries are listed alphabetically by title in the following format:

## TITLE

Subject synopsis

Author/Artist — Issue, Safety discipline (if applicable)

We solicit your comments and suggestions concerning the index (or *The Combat Edge* in general) so we can better serve our readers. Send us a note or give us a call. Our address, phone number and E-Mail address are inside the front cover.

### **A FIGHTER PILOT'S PERSPECTIVE**

Experience, Training, Maturity  
Maj Andy Parrish - JUL 95 FLT

### **A QUICK GUIDE TO BEATING STRESS**

Stress reaction/remedies  
Capt Richard Rini - APR 95 GRND

### **A SUPERVISOR'S NIGHTMARE**

Supervisor judgment, PRP  
MSgt William A. Hodgson  
MAR 95 WPNS

### **A WINNING COMBINATION QUALITY, COMBAT CAPABILITY, & LEADERSHIP**

Quality, Leadership,  
Gen Loh tribute  
Gen Ronald R. Fogleman - JUN 95

### **ACC FY94 ANNUAL AWARDS**

Winners of ACC Annual Awards  
Mrs. Barbara Taylor - FEB 95 AWD

### **ACC SAFETY AWARDS**

Awards program explanation  
Mrs. Barbara Taylor - MAY 95 AWD

### **ACCENT ON SAFETY**

Holiday return, Jan weather  
Col Fack Acker - JAN 95

### **ACCENT ON SAFETY**

Positive attitude, Winter blues  
Col Fack Acker - FEB 95

### **ACCENT ON SAFETY**

Complacency, Desensitizing  
Col Fack Acker - MAR 95

### **ACCENT ON SAFETY**

Spring, Information sharing  
Col Fack Acker - APR 95

### **ACCENT ON SAFETY**

Summer safety, ACC Safety Day  
Col Fack Acker - MAY 95

### **ACCENT ON SAFETY**

Farewell to Gen Loh  
Col Fack Acker - JUN 95

### **ACCENT ON SAFETY**

101 Critical Days, Fatigue, GLOC  
Col Fack Acker - JUL 95

### **ACCENT ON SAFETY**

101 Days, End of summer,  
Safety Day  
Col Fack Acker - AUG 95

### **ACCENT ON SAFETY**

Chief of Safety farewell  
Col Fack Acker - SEP 95

### **ACCENT ON SAFETY**

New Chief of Safety, Objectives  
Col Robert J. Tomczak - OCT 95

### **ACCENT ON SAFETY**

End of FY 95 statistics  
Col Robert J. Tomczak - NOV 95

### **ACCENT ON SAFETY**

Christmas card, Happy Holidays  
Col Robert J. Tomczak - DEC 95

### **ART & LIVE**

#### **BOMBING BASICS**

Live bombing techniques  
Capt Merrick E. Krause - JUL 95 FLT

#### **BULLISH ON LEADERSHIP**

Farewell tribute to Gen Loh  
Gen James L. Jamerson - JUN 95

#### **CENTER ART**

E-3 AWACS  
Sgt Darby Perrin - JAN 95

#### **CENTER ART**

F-15  
SSgt Doug Kinsley - FEB 95

#### **CENTER ART**

SPECIAL DELIVERY  
(F-111 from Cannon AFB)  
SMSgt Patrick A. Eby - MAY 95

**CENTER ART**  
SINISTER'S WINGMAN (F-15E)  
Sgt Darby Perrin - JUL 95

**CENTER ART**  
C-130 from Dyess AFB  
Maj Johnny L. Lott - SEP 95

**CENTER ART**  
Halloween safety tips  
Sgt Mark Bailey - OCT 95

**CENTER ART**  
FUELING THE STORM  
(F-16/KC-135)  
Maj Dan Maloney - NOV 95

**CHECKLIST FOR  
SAFE BOATING**  
Safe boating procedures, Checklist  
US Coast Guard - AUG 95 GRND

**COMBAT SEARCH & RESCUE  
WITH THE HC-130 &  
PARARESCUE TEAMS**  
Combat rescue, HC-130, PJ's  
Capt Randy Turner - MAR 95 FLT

**CONTRACT FOR LIFE**  
SADD contract between  
parents and kids  
Editor - APR 95 GRND

**CONTROL RISK, ELIMINATE  
HAZARDS, REDUCE LOSSES**  
PACAF goals, Safety,  
Gen Loh tribute  
Gen John G. Lorber - JUN 95

**CONTROL STRESS ON THE  
ROAD TO SUCCESS**  
How to control stress  
Ms. Vicky Walsh - APR 95 GRND

**CULTURE SHOCK**  
Trust, Integrity, Leadership, ANG  
Lt Pat Deconcini - JAN 95

**CULTURE THAT WORKS**  
Building a safety culture, Integrity  
Col Alan Groben - SEP 95

**DEPRESSION & SAFETY**  
Depression, Holidays,  
Mental health  
Maj Thomas P. Azar - NOV 95

**DON'T DRIVE  
YOURSELF CRAZY**  
Driving habits, emotions, control  
Shane Tritsch - NOV 95 GRND

**EXPLOSIVE ORDNANCE  
DISPOSAL THEN & NOW**  
EOD changes in the AOR, Quality  
SMSgt Ernest J. Lorelli  
JUL 95 WPNS

**EXPLOSIVE SAFETY**  
Explosive safety program  
SMSgt John P. Guillebeau  
MAY 95 WPNS

**F-16 HIGH AOA FAM. PRO-  
GRAM INCREASING IN PACE**  
F-16 high AOA handling program  
Maj Russ Prechtl - OCT 95 FLT

**FATAL ERROR**  
Emergency procedures, SA, CRM  
Lt Nathan Allerheilgen - OCT 95 FLT

**"FEELING FESTIVE" COST  
AIRMEN LIFE, CAREER**  
Drinking and driving  
Capt Karen L. Deimler  
JUL 95 GRND

**FINGERS & THUMBS**  
Hand injuries, wearing rings  
Mr. Mike Mehalko - OCT 95 GRND

**FIRE WON'T WAIT  
PLAN YOUR ESCAPE**  
Home fires, escape plans, alarms  
NFPA - OCT 95 GRND

**FIREARMS SAFETY**  
Gun safety, gun storage, visitors  
TSgt James A. VanHorn  
DEC 95 GRND

**FLAMEOUT**  
F-16 emergency, IFE,  
Coordination  
Col John Childress - SEP 95 FLT

**FLEAGLE**  
Winter flying, Icing  
Mr. Stan Hardison - JAN 95

**FLEAGLE**  
Winter blues, Depression  
Mr. Stan Hardison - FEB 95

**FLEAGLE**  
Change, Mobility, Readiness  
Mr. Stan Hardison - MAR 95

**FLEAGLE**  
Complacency, Experience  
Mr. Stan Hardison - APR 95

**FLEAGLE**  
Kitchen safety, Fires  
Mr. Stan Hardison - MAY 95

**FLEAGLE**  
Quality, Farewell to Gen Loh  
Mr. Stan Hardison - JUN 95

**FLEAGLE**  
Spring fever, Attention, Focus  
Mr. Stan Hardison - JUL 95

**FLEAGLE**  
Stress, Helping one another  
Mr. Stan Hardison - AUG 95

**FLEAGLE**  
Situational awareness,  
Complacency  
Mr. Stan Hardison - SEP 95

**FLEAGLE**  
Awards, Deadlines, Recognition  
Mr. Stan Hardison - OCT 95

**FLEAGLE**  
Complacency, Focus, Awareness  
Mr. Stan Hardison - NOV 95

**FLEAGLE**  
Merry Christmas, Holidays  
Mr. Stan Hardison - DEC 95

**FLYING, WORKING, PLAYING  
AT THE SPEED OF HEAT**  
Heat stress  
Capt Alex Bonner - JUN 95

**FY 94 USAF SAFETY AWARDS**  
ACC winners of  
USAF safety awards  
SEP 95 AWD

**FY 95 SAFETY GOALS**  
Safety goals for FY 95  
JAN 95

**G-EXCESS "I HATE IT WHEN  
THAT HAPPENS"**  
G-Excess, Sensory illusions  
Lt Col Sam Holoviak - JUL 95 FLT

**GPO ORDER FORM**  
Subscription form/service  
GPO - MAR 95

**HAPPY & SAFE HOLIDAYS**  
Holiday safety precautions  
DEC 95 GRND

**HEADS UP FLYING  
THE ACC APPROACH**  
Flight safety, Knowledge, Focus  
Gen John Michael Loh - JUN 95 FLT

**HEY YOU ATTACHED GUYS:  
ARE YOU READY TO HACK IT,  
ARE YOU PREPARED TO FLY?**  
Attached flyers, Preparedness  
Maj Marty Ogorzalek - JAN 95 FLT

**HOME EXTINGUISHERS CAN SAVE LIVES IF USED PROPERLY**

Home fire extinguishers  
MSgt Gary Reniker - FEB 95 GRND

**HOME FIRE SAFETY CHECKLIST**

Warning, Prevention, Planning  
NOV 95 GRND

**HOW STUPID CAN YOU BE?**

ICT's, Supervision, Carelessness  
SMSgt Brian D. Prucey  
NOV 95 WPNS

**I KNOW YOU THOUGHT YOU UNDERSTOOD WHAT YOU THOUGHT I SAID**

Inflight communications, Confusion  
Mr. Ralph B. Priestley - AUG 95 FLT

**INSPECTIONS - ONE PERSON'S PERSPECTIVE**

Inspections, Preparation, NSI  
MSgt William A. Hodgson  
APR 95 WPNS

**INTERVIEW**

Interview with  
Lt Gen Jumper, 9AF/CC  
9 AF Safety Staff - APR 95

**IT'S MOWING TIME AGAIN**

Lawn mower safety  
MAY 95 GRND

**KEEP US ON TARGET**

Reader survey  
Editor - AUG 95

**LANTIRN OPERATIONS**

Mission planning keys  
Capt Merrick E. Krause - FEB 95 FLT

**LEADERSHIP, SAFETY & THEN SOME**

Leadership, Safety, Attitude  
Brig Gen Silas R. Johnson, Jr.  
FEB 95

**MAINTAINING PEAK PERFORMANCE IN AVIATORS**

Human factors, Stress, Behavior  
Capt Richard Rini - JUN 95 FLT

**MISSING ASH**

Smoking in vehicles  
Mr. Ricke A. Moore - JAN 95 GRND

**MOTORCYCLES IN NOVEMBER**

101 Critical Days recap,  
Motorcycles  
Mr. Mike Mehalko - NOV 95 GRND

**MUNITIONS SOUVENIRS: DELIGHT OR DISASTER**

Munitions souvenirs, Inert weapons  
Maj Jay D. Bolan - OCT 95 WPNS

**NATIONAL HOLIDAY LIFESAVER WEEKEND**

Holiday driving, DUI  
DEC 95 GRND

**NIGHT EMERGENCY LANDING**

HH-60 NVG,  
Flight control emergency  
Capt Richard E. Donnelly  
APR 95 FLT

**NO! NOT ME**

Not me syndrome, Awareness  
Mr. Ricke A. Moore  
MAR 95 GRND

**NUCLEAR WEAPONS PERSONNEL RELIABILITY PROGRAM**

Personnel Reliability Program  
MSgt William A. Hodgson  
JUN 95 WPNS

**OLD TAT**

Excerpts from first editor's  
articles, History  
Lt Col Kurt Dittmer - DEC 95 FLT

**OSHA MYTHS & HALF-TRUTHS IN SAFETY**

Facts on OSHA  
standards and safety  
MSgt Gary Reniker - OCT 95 GRND

**OUT OF THE LABYRINTH: FLIGHT SAFETY COMMUNICATION IN MULTI-NATIONAL OPERATIONS**

Flight safety communications  
Maj Jeffrey C. Alfier - OCT 95 FLT

**PREVENTING PROPELLAR & BOAT STRIKE ACCIDENTS**

Boating safety, Propellar strikes  
US Coast Guard - MAY 95 GRND

**PROM PLEDGE**

SADD Prom pledge for sobriety  
Editor - APR 95 GRND

**QUANTITY-DISTANCE WHAT IT IS & WHY SHOULD I CARE**

Explanation of Quantity-Distance  
MSgt Dave Green - FEB 95 WPNS

**RANK HAS NO PRIVILEGES**

Driving, Bad weather  
Maj Gen Phillip G. Killey  
MAY 95 GRND

**RISK MANAGEMENT & THE DECISION TO EJECT**

Ejection decision, Risk  
Capt Mark D. LaFond - JUN 95 FLT

**SAFE ACTIONS SPEAK LOUDER THAN WORDS**

Safety philosophy, Training,  
Example  
Gen Joseph W. Ralston - SEP 95

**SAFEQUAKES**

Earthquake safety/actions  
Maj Thomas P. Azar - JUN 95 GRND

**SAFETY CONCERNS**

USAF/SE message, Flight discipline  
Editor - SEP 95 FLT

**SAFETY FIRST WHEN FUELING YOUR BOAT**

Boat fueling safety  
US Coast Guard - JUL 95 GRND

**SAFETY PROGRAM IS STRONG**

Blue Ribbon Panel findings  
Editor - DEC 95 FLT

**SAFETY RESTS WITH AIR FORCE PEOPLE**

AF/SE comments, Responsibility  
TSgt David P. Masko  
NOV 95 FLT

**SAFETY TIPS FOR TRAILERING YOUR BOAT**

Boat trailer safety/courtesy  
US Coast Guard - JUL 95 GRND

**SECONDS FOR SAFETY**

Winter driving, Clean windows  
SMSgt Brian D. Prucey  
JAN 95 GRND

**SEEKING HELP NOT SIGN OF WEAKNESS**

Mental health, CSAF interview  
MSgt Gary Pomeroy - NOV 95

**SELF-WORTH, LEADERSHIP & SAFETY**

Leadership, Quality, Safety  
Lt Gen Stephen B. Croker - MAR 95

**SKIING INJURIES ARE NO FUN**

Skiing, Ski equipment, Conditioning  
MSgt Gary Reniker - JAN 95 GRND

**SO YOU THINK YOU CAN DRIVE THAT FAR, THAT LONG**

Driving, Fatigue, Over-extending  
MSgt John E. Fleeger  
SEP 95 GRND

**SPRING FEVER**

Weed wacker, Yard maintenance  
Mr. Ricke A. Moore - APR 95 GRND

**STRESS AFFECTS  
FLYING & FAMILIES**

Stress effects by Dr. Teters  
Capt Mike Pierson - APR 95 FLT

**SUICIDAL WILDLIFE  
STREET GANGS**

Wild animal driving hazards  
TSgt Bob Meloche - OCT 95  
GRND

**SUICIDE IN THE AIR FORCE**

Suicide  
Maj Mike Reznicek - JUL 95 GRND

**SUMMER SAFETY**

Summer safety, Swimming, Boating  
MSgt Gary Reniker - MAY 95 GRND

**SUPERVISOR-PROFESSIONAL  
OR PHONY**

Leadership, Professionalism, Caring  
TSgt Mario H. Casuga - MAY 95

**SUPPLIER DESERVES  
SPECIAL RECOGNITION**

Recognition of 11 COMM SQ  
Mr. Ron Smith - APR 95

**SURVEY RESULTS**

Reader survey results/comments  
Editor - DEC 95

**THE BIGGEST DECISION**

Maintenance decisions,  
FCF release  
Capt Larry Stephenson - JUL 95 FLT

**THE COMBAT EDGE 1994 INDEX**

Index of COMBAT EDGE 1994  
articles  
Editor - JAN 95

**THE COMBAT EDGE IS  
REDESIGNATED ACC SP 91-1**

Change of publication number  
Editor - DEC 95

**THE COMPLACENCY BUG**

F-16 Night flying, Complacency  
Anonymous - JAN 95 FLT

**THE ESSENCE OF COMMAND**

Responsibility of command  
Brig Gen Orin L. Godsey - JUN 95

**THE GEOGRAPHY  
OF FLIGHT SAFETY**

Flight safety, AWACS  
Maj Jeffrey C. Alfier - MAR 95 FLT

**THE GREAT OUTDOORS**

Vacation safety, Camping, Planning  
Mr. Ricke A. Moore - MAY 95 GRND

**THE HERCULES IN TRANSITION**

C-130 Transition, Modernization  
Mr. Lyle H. Schaefer - JAN 95 FLT

**THE NUCLEAR  
CERTIFICATION PROGRAM**

Nuclear certification program  
MSgt William A. Hodgson  
SEP 95 WPNS

**THE RESPONSIBILITY  
OF COMMAND**

Leadership, Being a commander  
Gen John Michael Loh - JUN 95

**THE ROLE OF LEADERSHIP  
IN SAFE OPERATIONS**

Leadership, OPS TEMPO,  
Judgment  
Gen Ronald R. Fogleman - NOV 95

**THE SILENT KILLER**

Carbon monoxide poisoning  
SMSgt Rocky W. Cowart  
FEB 95 GRND

**THE WEEKEND THAT WASN'T**

Home safety, Storage, Planning  
Mr. Clarence O. Faile - SEP 95 GRND

**THOSE BELLS**

Lawn mower repair/safety  
Lt Col James D. Teigen - MAY 95 GRND

**THUMBS UP**

Towbar operations/signals, Intent  
MSgt Michael Mlodzik - JAN 95 GRND

**TO THE POINT**

Letters to the editor and replies  
Editor - DEC 95

**TOO HOT TO HANDLE?  
NO SWEAT**

Heat stress  
Ms. Catherine Kedjidjian  
JUL 95 GRND

**TRANSITIONING TO LIGHT IRON**

Learning to fly light airplanes  
Mr. Walter D. Miller - AUG 95 FLT

**TWO ENGINES: ONE FAILS,  
THERE'S STILL THE OTHER**  
Two engine mentality, Complacency  
TSgt Kevin Schwan - MAR 95 FLT

**USE CAUTION, COMMON SENSE  
IN PREPARING HOLIDAY POULTRY**

Holiday meal preparation, Poultry  
AFIS - DEC 95 GRND

**VEHICLE MISHAPS CONTINUE...  
WILL YOU BE NEXT?**

AOR driving, AOR mishaps  
TSgt Norman E. Stephenson  
MAR 95 GRND

**VIRTUAL SAFETY**

ANG safety, safety organization  
Col Dennis D. Nielsen - AUG 95

**WE HAVE A PROBLEM**

KC-135 IFE, CRM, Coordination  
MSgt Gary Lemmonds  
MAY 95 FLT

**WHAT DO HOT TUBS,  
SWIMMING POOLS  
& F-16'S HAVE IN COMMON?**

Chlorine, Storage, Facilities  
Lt Col Richard P. Norton  
SEP 95 GRND

**WHAT IS "LIGHTS ON FOR LIFE?"**

DUI, Impaired driving, Holidays  
NOV 95 GRND

**WHAT IS 3D MONTH?**

Explanation of 3D Month program  
Editor - NOV 95 GRND

**WHEN STRESS STACKS UP**

Stress, Change, Downsizing  
Ms. Susan Meyers - MAY 95 GRND

**WHY THE 2000 FOOT  
MINIMUM ALTITUDE**

Minimum ejection altitude,  
Reasoning  
Maj Tom Breen - MAR 95 FLT

**WRITE IT UP**

Maintenance write ups,  
Discrepancies  
TSgt William J. Lick  
MAY 95 FLT

**WRITING AN ARTICLE FOR  
THE COMBAT EDGE**

How to write and submit articles  
Editor - OCT 95

**YOUR LAST CHANCE, THIS YEAR**

Reader survey  
Editor - SEP 95

**ZERO'S NOT A  
NUMBER-IT'S A WAY  
OF THINKING**

Mishap prevention, Goals,  
Attitude  
Col Dennis D. Nielsen  
APR 95



# AIRCRAFT AND MAINTENANCE

*TSgt William L. Miller  
18 MXS/LGMC  
APO AP 96367-5183*



**W**e are slowly losing control of our Composite Tool Kit program and its designed purpose Air Force-wide. The use of personal tools on the flightline and in our support shops is on the rise and may cause a fatal mishap someday. Prime examples of these tools are small personal flashlights, hip pocket tool kits, and the various multipurpose pocket knives/tools. People have any number of reasons for using their personal tools. "I only use it to save time when a tool box is impractical. I only need it for this panel. I won't lose it; I'm careful. I work on AGE equipment; this isn't an aircraft. This is shop work, nothing to worry about. Don't be so hard core; no one will ever know. Other supervisors let their people use them, why not us?" Well, let me explain some reasons why not from a more personal level. In my tenure on the flightline I have found a flashlight and a multipurpose tool in the flapwell, a screwdriver and Tech Order in a wheel well, a 1/4 inch drive socket in an entry hatch, three Clecos underneath the rudder control quadrant, and a set of grease fittings in the lower nose compartment. Only one of these items was traceable to where it originated — the Tech Order. The other items had no ID markings and were not standard

military issue tools. It may only be a matter of time before we experience a fatal mishap involving one of these tools.

Think about this scenario for a moment. You're scheduled to fly a routine parts delivery and passenger drop off mission. Your assigned aircraft is Fully Mission Capable (FMC), but the day before this particular aircraft had lateral/roll control problems inflight. When the aircraft landed the previous evening, three maintenance technicians were dispatched to fix the flight control problem. After all the troubleshooting was completed, they determined that the cable tension on the aileron control system required adjustment at the turnbuckle. At this time the technicians were notified of two more tasks that needed their attention as soon as they were available. With the current problem identified, one technician started fixing the discrepancy while the other two started policing up the work area and inventorying all the tools. In their haste to get ready for the other jobs, they put the wire cutters and cable tensiometer away and loaded the tool box into the truck. They forgot that the technician safety wiring the turnbuckle would need those tools again. When the last bit of wire was wrapped around and ready for trimming, the technician noticed the wire cutters had been removed from



# SUPPORTING PERSONNEL



the top of the ladder. So, using a multipurpose tool that was conveniently located on his belt, he cut the safety wire ends and tucked them away. Setting the tool in the flapwell so he could double check the cable tension, he realized that the tensiometer had also been put away. As he got down off the ladder and headed toward the truck, he was told to hurry up; a Red Ball had just been called in. The technician quickly returned to the aircraft, retrieved the ladder, and returned to the truck. The Red Ball lasted into the next shift, so turn over was given at the aircraft on the current situation. The technicians also exchanged information about the other two tasks and the flight control job which only required a cable tension check, an operational check, and aircraft forms sign off. All tools were double checked at the current job site — none were missing! The three technicians were ready to go home and were released to do so. The other shift completed all the maintenance assignments left by the previous shift and inventoried all their tools — none were missing. All aircraft were registered FMC — including the one you're going to fly!

The socket mentioned earlier actually caused a "prior to flight" ground mishap.



When the flight crew performed their "hatch locked and light out" check, the socket jammed the cam roller and wouldn't allow the hatch to re-open. What if this had been an actual ground abort emergency and the flight crew did not have enough time to choose an alternate means of egress? What if the tool left behind in the flapwell became lodged in one of the aileron bellcranks? Can you imagine trying to fly or land an aircraft with no ailerons or, even worse, the ailerons got stuck in wing down position? Simply put, you probably wouldn't be flying very long. Now you can ask the question "What if?" all day long, but is that what you really want to do? The real question is, "How did these tools get there?" It seems pretty obvious to me; using personal tools provides a lack of inventory control. The real issue here is that personal tools are not authorized and should not be used for aircraft maintenance. I would challenge all supervisors and technicians to help us eliminate this problem. Lead by example and eliminate personal tools on the flightline and in our support shops. Who knows, you just may save an aircraft or more importantly — someone's life. ■

# What Those Mishap Reports Don't Say

Mr. Ken Morris  
1 AF/SEG  
Tyndall AFB FL

**I** recently read a mishap report that very accurately related the mishap sequence and identified the findings and cause factors. The report left no doubt that the investigation was very thorough. However,...

Just to tell you a little bit about the mishap, a crew consisting of volunteers assembled to wash an aircraft (volunteers defined as "if you weren't busy, you were a volunteer"). The supervisor of the wash rack assigned them to specific stations on the aircraft. That's about all the instruction they got! The report stated that the workers were directed to the PPE locker "to find some PPE" and that they choose between goggles and face shields, and whatever other paraphernalia they felt they might need. Some took rubber gloves, aprons, and rubber boots; but it was pretty much left up to the workers to choose their own PPE. (The report went on to say that most of the PPE was in poor or unserviceable condition.) They were handed buckets and sponges and directed to the soap dispenser where they were fixed up with an acceptable mixture of soap and water. As this bucket brigade was soaping down the beast, there was some high pressure air (too much) sudzing going on also. High pressure air and water create mist; and when you add soap, you get a soapy mist. (It's a known fact that we don't use the popular "no tears" shampoo when we wash aircraft.) By now you probably know where we're headed with this story.

Worker one was wearing goggles while lying on a creeper washing the underside of the aircraft when his vision started blurring. Thinking that his goggles had fogged up, he took them off. Much to his surprise, turns out the goggles weren't fogging up, his eyes were, because of that high pressure soap mist in the air. Once he figured out his problem he called for help and was assisted to the nearest eye wash station where

he flushed his eyes. Worker two noticed the commotion at the eye wash station and inquired as to what was going on. When told about worker one's symptoms, worker two diagnosed he had the same thing. He went through the same flushing treatment and both workers were taken to the hospital, treated, and placed on quarters.

The mishap report accurately identified several cause factors: supervision, task briefings, training/qualification, PPE, etc. What it didn't say was, "How did this situation develop?"

This operation wasn't a spur of the moment thing! This process was normal for the wash rack!!! The mishap report didn't say how this operation had escaped all the various agencies and methods available to identify unsafe operations or conditions. Agencies like Safety, Quality Assurance, Bio, and last but not least, supervision. Methods like annual safety inspections, spot inspections, high risk inspections, quality assurance inspections, bioenvironmental health inspections.

It's safe to say that every Air Force base has some type of washing facility; i.e., aircraft, AGE, vehicle, etc. This mishap should serve as a reminder to everyone with inspection responsibilities to look a little harder, ask a few more questions, and don't be so quick to say everything looks okay. In these days of having to get the job done with fewer people, we're really setting ourselves up to get some untrained person hurt. No supervisor wants a mishap like this to happen on their shift. However, when you're spread so thin that you take any help you can get, supervision needs to stay closer to the task and give the safety of the work force even more attention. Inspections need to be frequent, thorough, honest assessments of actual conditions. If we only learn through mishap investigations, then we aren't doing our jobs! ■

# Nuclear Surety - The Right Investment

*MSgt William A. Hodgson  
HQ ACC/SEW  
Langley AFB VA*

**I**f you are looking for a safe, reliable investment with a high return on the dollar, consider investing in your unit's Nuclear Surety Program. Take a moment to examine the program. Information about the program is found in the USAF Nuclear Surety Journal, Air Force Special Publication 91-3, and AFI 91-101, Air Force Nuclear Weapons Surety Program. You'll appreciate that over the last 50 years no other Air Force program has produced such spectacular results. Because of Nuclear Surety we have never experienced a NucFlash, a mishap that threatens the outbreak of war, and have experienced very few nuclear accidents (Broken Arrows) or incidents (Bent Spears). Nuclear Surety produces the kind of results you won't find in any other program. With the many diverse operations being performed with nuclear weapons on a daily basis, we can't afford to have a nuclear surety program that doesn't produce positive results.

As the world situation changes and the Air Force continues to downsize, many other programs are being eliminated, streamlined, or cut to the bone. Even during the downsizing, the Nuclear Surety Program is still going strong. Without a doubt, no matter what else changes, you know what's going to happen to the Nuclear Surety Program. It's going to be monitored, analyzed, tested, and, if necessary, modified to ensure we never lose sight of the program's objectives or fail to meet the program's goals. At the top are a group of experienced administrators who provide program guidance and sound advice to some of the Air Force's largest nuclear organizations.

The program is managed locally, on a regional basis, by a dedicated staff of weapons safety professionals. They are ready to

review your program and are willing to help place your investment resources in the right program elements. Their overall goal is to ensure you invest in the elements that will perform best for you. Remember when you make the commitment to invest, you are also making a commitment to improve the Nuclear Surety Program. It is not a hands-off investment but rather a hands-on investment. You may only be able to implement small improvements in the program, but don't get discouraged because your experience and ideas are valuable. You will need to periodically review the program set up for you by the weapon safety manager and ensure it is meeting your individual and unit goals.

Just how will the Nuclear Surety Program evolve to match the changing world situation? Well that is hard to say. What can be said is that the Nuclear Surety Program is a solid investment. Unfortunately, past performance is no guarantee of future results. The Nuclear Surety Program must have the best managers, the best unit support, and the best training system money can buy. It's time for you to make the decision that will have an effect on the quality of the Nuclear Surety Program for years to come. When you make the commitment, you will be welcomed into a select group of professionals working toward a common goal — to incorporate maximum nuclear surety consistent with operational requirements. Join the thousands of others who have found relief for their nuclear headaches by investing the time, personnel, or dollars necessary to support the nuclear surety program. The more resources you invest, the quicker you'll realize the benefits the program has to offer. ■



# TEAM SALUTES

"We were 3 hours into our standard C-130 student training sortie at a civilian transition base. I (the instructor pilot) had two student copilots and the loadmaster also had a student. The student in the seat had difficulty with his landings, so I followed along on the controls for our sixteenth touch-and-go. The aircraft touched down on airspeed, approximately 100 knots, on centerline. As I initiated the touch-and-go checklist and began to push the throttles up, something didn't feel quite right. My engineer quickly scanned the engine instruments, finding all indications normal. A grinding/rubbing noise was heard by the loadmaster coming from the left side of the aircraft; the instructor loadmaster indicated (he thought) we had a blown tire. Tower advised us of smoke coming from our aircraft. I suspected something was wrong with

the left tire and elected not to take the aircraft into the air. I retarded the throttles to flight idle, then ground idle, and stayed off the left brakes. I felt I couldn't go to max reverse due to possible engine FOD ingestion and fear of undesirable control characteristics. The aircraft came to rest approximately 1200 feet from the end of the runway. We performed emergency engine shutdown procedures, feathered the props and egressed the aircraft. The instructor loadmaster turned off aircraft oxygen at the emergency shutoff valve and chocked the nose gear. Upon egress of the aircraft, we realized that we had a much larger problem than blown tires. Initial investigation revealed the aft left strut attachment point to the horizontal torque strut had failed at touchdown due to a previously undiscovered crack. The horizontal torque strut keeps the C-130's tandem gear parallel to the fuselage. This allowed both left main gear to pivot away from the centerline of the aircraft. The aft left gear pivoted almost 90 degrees from the aircraft's direction, stopped rotating, and shortly after-

ward blew, severing hydraulic and electrical lines, destroying sheet metal and the inner gear door. The forward left gear pivoted 35 to 45 degrees, wearing off all the tread and several cords of the tire. Tire marks on the runway indicated the aircraft landed on centerline, drifted 30 feet left of centerline as the aft tire failed, and proceeded in almost a straight line until stopping. Any left brake or attempt to bring the aircraft back to centerline could have resulted in the forward gear failing, with catastrophic results, had the left outboard propeller impacted the runway."

**Lt Col Jim Stevens**  
**TSgt John S. Marshall**  
**SSgt Jerry L. Ehrcke**  
**53 AS, 314 AW**  
**Little Rock AFB AR**

On 30 May 95, the 82 RS completed its 13th consecutive month of sustained aerial reconnaissance operations exceeding 100 percent of JCS tasking in support of national reconnaissance objectives. During this time period, the 82 RS flew over 1,615 flight hours without a single Class A, B, or C mishap. The 82

RS is supported on average by one RC-135V/W RIVET JOINT aircraft and deployed crews from the 38 RS and 343 RS. The sorties range from 8 to 13 hours in duration and most have one air refueling with an average off-load of 55,000 pounds. The 82 RS area of responsibility includes the entire Pacific theater covering approximately 7 million square miles. During this time frame, the 82 RS supported surge operations, JCS deployments of the RC-135U DISTANT SENT, RC-135S DISTANT STAR, and the TC-135B DISTANT PHOENIX. Despite several precautionary evacuations for impending typhoons which threatened their island outpost, the 82d maintained their operational tempo without skipping a beat. This is all the more remarkable when you consider that the squadron usually has only one aircraft to complete its aggressive tasking. Many times the crews literally run out of flying time. Schedules must be carefully coordinated to ensure that tasking can be met and the crews have sufficient crew rest. The maintainers routinely complete required maintenance ahead of schedule, finishing the job safely and professionally. The 82d has maintained an outstanding record through many adverse conditions and it is the professionalism and discipline of its squadron personnel and the crews from the 38 RS and 343 RS which will carry on this tradition of excellence and safety. The 82d is looking forward to an-

other year of safely meeting or exceeding its tasking. If the above accomplishment is any indication, they are well on their way.

**82d Reconnaissance  
Squadron  
55 WG**

**Kadena AB, Japan**

After volunteering to stand fireguard for the launch of aircraft 2067, Airman Fahrenbruch observed a piece of the right main landing gear brake assembly separate and fall from the wheel housing after engine start. Upon closer inspection of the wheel, he discovered more pieces of the brake assembly had loosened and fallen to the ramp. He alerted the crew chief to the situation. As a result of his attention to detail, the aircraft was immediately ground aborted and the pilot was directed to the spare aircraft. Airman Fahrenbruch's situational awareness and quick action prevented a potentially serious hazard and an almost certain mishap from occurring.

**A1C Christopher A.  
Fahrenbruch  
4 FS, 388 FW  
Hill AFB UT**

On the evening of 15 Jun 95, Sergeant Bregger, Precision Measurement Equipment Laboratory Craftsman, was enjoying some free time with an American family at Dhahran, Kingdom of Saudi Arabia. The family had graciously invited deployed members of the 4404th Composite Wing and civil-

ian third country nationals to share their dinner and some time to relax near a swimming pool. A nine-year-old Pakistani child was among the guests playing in the family's pool. Sergeant Bregger's own rest and relaxation time was quickly transformed into a split-second decision to react when he heard a cry for help from the swimming pool. Other guests who had observed the young girl playing were alarmed to see her floating face down in the water, but no one seemed to know what to do in the face of local religious sensitivities. Putting aside these concerns, the former Emergency Medical Technician sprang into action. He retrieved the child from the swimming pool, immediately assessed her condition, and established an airway. After determining that the child had no breathing and no pulse, he initiated CPR. After clearing the child's airway, Sergeant Bregger effectively employed the CPR training that all equipment maintainers receive annually, and after a few minutes the child regained a heartbeat and began breathing on her own. Sergeant Bregger's quick reaction and precise application of CPR certainly saved this young child's life, and earned him the respect and admiration of a family and community in Southwest Asia.

**SSgt J. Stephen Bregger  
20 CRS, 20 FW  
Shaw AFB SC**

*Editor's note: Although deployments to various trouble spots throughout the world are "old hat" for many Air Force units, we must remember that not everyone in the unit may be a deployment veteran. As we constantly add new people to units, we need to be aware of their lack of deployment experience and the potential for problems. Adequate preparation, proper training, and effective leadership will give people the best chance to safely accomplish whatever mission they're tasked with.*

**Major Thomas P. Azar**  
**35 FW/HC**  
**APO AP 96319**

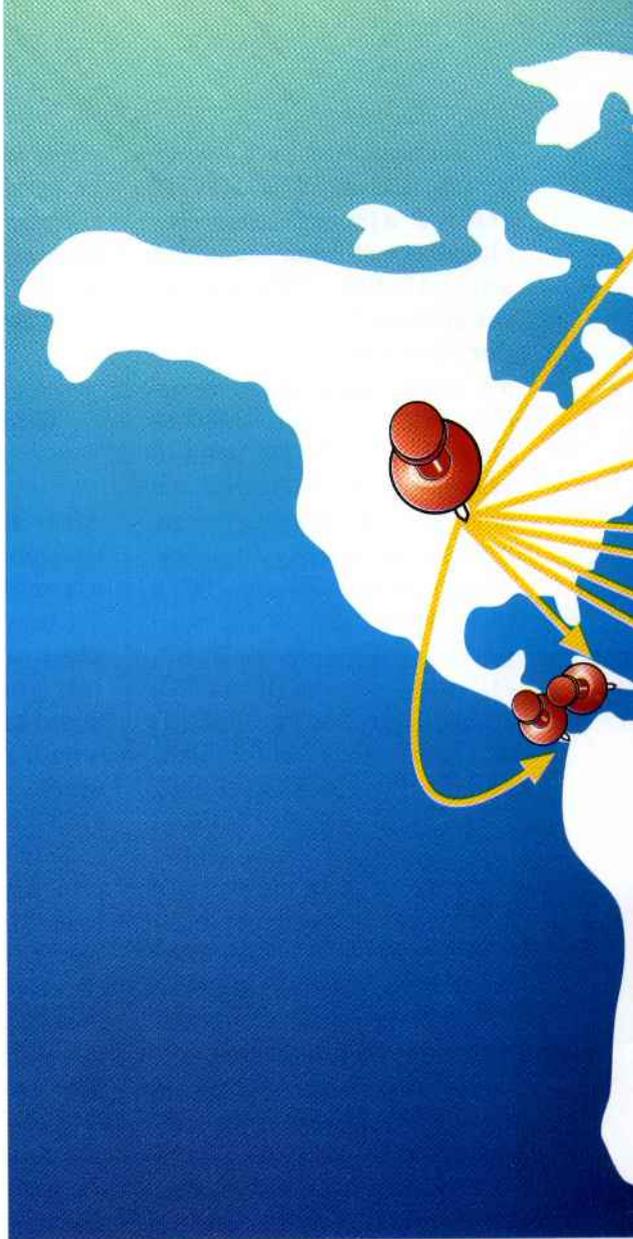
**A**s Air Force men and women are called upon to serve at forward base deployments, several challenges to the member-leader relationship arise. These challenges come from within the individual, the unit, the foreign nation, and even our own country. How an individual meets the varied challenges depends on the level of his or her training and their relationship with peers and supervisors as they relate to expected and unexpected problems. Healthy support relationships will help bring the problems to the surface so they can be discussed and resolved. The inability to meet these challenges via straightforward healthy interpersonal relationships could cause one to snap before, during, or after a real-world deployment or confrontation. Even though some in the Air Force "fight" far from the front line, their state of mind behind a tool box or desk still warrants a supervisor's attention.

Readiness is more than a physical posture; it embraces the mental, emotional, and spiritual dimensions. Whenever possible, it is imperative for commanders and supervisors to know each individual beyond the superficial salutations. It's to a supervisor's advantage to increase "people care" because a variety of psycho-social problems can rapidly surface which weaken an individual's resolve and thwart the success of the mission.

#### **EARLY WARNING SIGNS.**

What happens once deployed individuals arrive at the forward base? Using the Middle East as a backdrop, there is a variety of unaccustomed hurdles that some deployment veterans may be aware of; but lacking the lived experience, many new airmen do not have the accustomed responses to deal with the unexpected problems. For example, our airmen are initially tired from a long journey. There is tremendous stress and possible danger created by the heat, dehydration, irregular work shifts, poor sleeping habits, fear, loneliness, homesickness, and terrorism. They may or may not have ready access to clean water, telephones, air conditioning, comfortable cooking, and sleeping quarters. If available, these amenities may be far removed and not always a place one can drive home to on one's lunch hour.

There are several areas on which commanders and supervisors can concentrate in order to enhance our deployed fighting force.



#### **CULTURAL PREPARATIONS.**

Some deploying personnel depart with little awareness of what to expect. One is filled with expectations about being in a new land and culture, but at the same time, he or she may not always be aware of the variance in cultural morals and patterns. Leaders and supervisors at the home and forward base should provide resources to educate deployed personnel about unique social, political, and religious characteristics of the host country. There are ample resources through the chapel and family support agencies that can provide in-depth insights on the stress and

# Insights Into Forward Base Deployments

A stylized world map with a blue background and white landmasses. Several red pushpins are placed on the map, primarily in the Middle East, Southeast Asia, and East Asia. Yellow arrows originate from the pushpins and point towards the title, suggesting a flow of information or deployment routes.

strains of deploying into a foreign culture.

## **PHYSICAL PREPARATIONS.**

A second area is making sure all arrive pre-briefed and prepared with the proper amount of clothing, medicines, and dietary supplements to survive at the forward base. Unfortunately, some who deploy arrive with insufficient training and personal items. Being properly trained reflects concerned care on the part of the home base.

## **MENTAL PREPARATIONS.**

Once the physical and cultural aspects are in place, supervisors need to focus on the mental and stress-related forces that could surface while one is

in a hostile area. Facing a real world enemy — persons, weapons, seen and unseen — can shake the foundations of one's values, personhood, and training. Many who I talked with from recent deployments said they felt deep fear for their life.

When one leaves the comfort of US soil and arrives at a foreign nation, expected happenings such as layovers, delays, lack of sleep, jet lag, poor meals, etc., start to drain an individual's energy. However, this may only be the beginning. If this initial foundation is somewhat unstable, one has greater difficulty being ready when unexpected situations arise or unanticipated pressures are encountered. If one finds

himself or herself behind the readiness curve, it is difficult to catch up when surrounded by hostile forces. This personal erosion has a direct impact on the mission.

One physical weakness by itself is not enough to snap an individual, but combined with other factors, it can become the final straw that breaks the camel's back. For example, if an airman in operations or maintenance is working long hours, not eating or sleeping properly, misses his or her family and friends, he or she could get by. However, if these anxieties get compounded by continuous diarrhea, the news of a possible chemical attack, or an ill relative back home, any one could

become the final factor that weakens an individual's resolve and thus makes them ineffective. These stresses and strains become harmful factors that can be averted through in-depth training and through the attention of professional caretakers. Unfortunately, many who deploy don't discuss these sensitive factors for a variety of personal reasons. They want to avoid it; they worry about peer responses, or believe in "the myth of immortality."

Therefore, commanders and supervisors should go the extra mile trying to discern what is going on within the unit. Often individuals talk about having stomach related problems, dry mouth, and breaking out in rashes. True they are physical symptoms, but in a deployed situation, they could be the result of pent-up stress and fear. Leaders who see the big picture will at first take care of the physical problems, but then go on to resolve the causes of the stress for both the individual and the entire squadron.

The unperceived questions that surface within the soul of every individual — issues of life and death, family and friends, values and goals — present a deeper, more difficult problem. Every person has a limit that, unless strengthened, could rupture in the face of enemy attacks. One's limit has to do with the combined strength of their mental, physical, emotional, and spiritual make-up. During Operation Desert Storm and Restore Hope, many commanders and supervisors became aware of the human dimension and worked overtime with helping professionals to guide their members so they would be in the best condition possible in case of an unexpected attack. Their approach in addressing these intrapersonal issues in the face of an enemy confrontation helped to avoid the demise of the troops.

**TERRAIN.** The desert dehy-

drates an individual, making sleep uncomfortable and work difficult. The geography of the desert creates an atmosphere that is desolate, hot, unpredictable, unfamiliar, and solitary. Airmen face new elements from Mother Nature rarely experienced before in the states. Sleeping and working in the desert affects the total person. The desert weighs on several emotions like loneliness, fear of the unknown, and anger.

Unfortunately, some who deploy prefer to keep to themselves, even to the point of isolation. This detracts from the team spirit. They refrain from eating, exercising, or relaxing together. Such an individual loses vital peer support, updated military information, and the opportunity, depending on the AOR, of touring historical sites. Insufficient socializing robs the mightiest unit of friendly fuel. Recreation does precisely that — it helps re-create an airman's strength.

**AFTER CARE** — Post traumatic stress. As Vietnam and subsequent confrontations have shown, even though the action is over, the mind continues to drift back to the pain and loss. Military members who experienced or were directly involved in a crisis or death need counseling to try to deal with the frightening trauma. After Desert Storm, many individuals who came for counseling were suffering from depression and insomnia. They felt alone because their supervisor, spouse, or family could not connect with their memories and feelings. It put a strain on the family and work environments. Commanders need to be sensitive to the evolving needs and unresolved issues that are carried over after the treaties are signed and the troops are home. Like a bad dream, a good, helping professional can unpack the symbols and realities that haunt those who were willing to go in harm's way without full knowledge of their own limitations.

**PREVENTION.** I learned in

the missionary field that if you provide people three basics they will follow their leader - 1) good food, 2) a comfortable place to rest their head and their belongings, and 3) unity in the mission. In addition to this, it is important to have a support group of friends or professionals who can pick up the early warning signs and be honest and open about their concerns.

After one returns from a forward base, it is important to the gaining base commander and supervisor to be sensitive and supportive. If certain behavior warrants your involvement, don't put it off. Often a private conversation gives a commander the insights he or she needs to make the proper referral to a helping agency. Getting a co-worker or chaplain to visit the family and make them aware of the changes that occurred can help provide additional support. Sensitivity by one's family and peers makes the deployed individual feel those closest to him or her really understand.

When one leaves the AOR, the reunion stage induces individuals to relax and share their experiences with family and friends. It behooves those who did not deploy to try to be supportive of those who have just returned. Help them out by spending time with them, do catch-up at work, or just get them to talk about their experiences and feelings. If a peer looks overly stressed or isolated, encourage him or her to talk to a professional. The reunion stage allows many individuals time to reflect and deal with the positive and negative experiences. Just the attitude of facing up to the experience is a step toward personal growth. Failure to face the past will only increase the fearful memories which undoubtedly will resurface in greater magnitude in the future. ■



# Take Steps to Ensure Safe Skiing this Winter

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**M**ost skiers say there's nothing like the rush from tackling a slope of white, powdered snow on a brisk afternoon. Whether schussing down a small slope, tackling a major downhill run or just navigating a rural trail, skiers often enjoy the sunshine, fresh air and exercise.

However, both experienced and novice skiers should keep safety in mind when preparing for the slopes. Gerald Martin, safety director at Fort Carson, Colorado, published a list of precautions that helps skiers prepare.

Ski safety begins with the equipment. Martin said if you own your own equipment, make sure it's in good condition. "This includes waxing skis, adjusting ski bindings and checking boots for a snug fit," he said. If renting, Martin said be sure the ski shop provides reliable equipment.

Many bases near ski slopes have outdoor recreation centers that rent skis, boots and poles — often at prices lower than commercial venues.

They also provide routine maintenance and can fit skiers with the proper equipment they'll need.

Another concern is proper clothes. With snow, cold and wind, wearing the right clothes means you can ski longer. Gloves and hats will help prevent frostbite, while goggles and sunglasses provide eye protection from glare and errant branches along trails.

Once on the slopes, novice skiers need proper instruction. Martin said inexperienced skiers should learn the basic skills before they challenge trails. This includes proper warm ups, avoiding obstructions such as fallen branches and rocks and learning how to use ski lifts.

It also means learning how to fall and how to get up after a spill. "Bracing a fall with an arm or knee can cause injury," said Martin. He said when skiers fall, they should try to land on their rear with their legs in front. To get up, Mar-

tin suggested tucking your knees under the body, placing the skis across the slope and using the ski poles to stand.

Safe skiing is responsible skiing, and Martin said that means skiing under control and obeying the rules. "Don't go so fast that you can't stop or turn to avoid other skiers or obstacles on the trail," said Martin.

Ski area managers designate slopes by difficulty — ranging from beginners' "bunny trails" to the most challenging slopes. Martin said skiers should ski to their ability levels and gradually work up to more demanding slopes or routes. He also warned skiers to stay off closed slopes and trails. Most trails close because of hazards.

Responsible skiing also means knowing the proper ski courtesy. Martin said simple things like yielding to other skiers when entering a trail will prevent collisions. He warned skiers to never stop where they block a trail or where skiers can't see another person from above. ■

