

# THE COMBAT EDGE

MAY 1996

## AIR COMBAT COMMAND

# DESERT

The Combat Edge May 1996 Air Combat Command Desert Special Edition

## SPECIAL EDITION



# The Combat Edge

AIR COMBAT COMMAND  
SAFETY MAGAZINE

Gen Richard E. Hawley  
*Commander*

Col Zak Tomeczak  
*Chief of Safety*

Lt Col "Nellie" Beard  
*Editor*

Ron Smith  
*Art Director*

Barbara Taylor  
*Awards Administrator*

Sgt Mark S. Bailey  
*Staff Artist*

*The Combat Edge* (ISSN 1063-8970) is published monthly by the Air Combat Command, HQ ACC/SE, 130 Andrews St Ste 301, Langley AFB VA 23665-2786. Second-class postage paid at Hampton VA and additional mailing offices.

**POSTMASTER:** Send address changes to *The Combat Edge*, HQ ACC/SEP, 130 Andrews St Ste 301, Langley AFB VA 23665-2786.

**DISTRIBUTION:** F(X) OPR: HQ ACC/SEP. Distribution is controlled through the PDO based on a ratio of one copy per ten persons assigned. Air Force units should contact their servicing PDO to establish or change requirements. Other DOD units have no fixed ratio and should submit their requests to the OPR. **ANNUAL SUBSCRIPTIONS:** Available to non-DOD readers for \$22 (\$27.50 outside the U.S.) from the Superintendent of Documents, PO Box 371954, Pittsburgh PA 15250-7954. All subscription service correspondence should be directed to the Superintendent, not HQ ACC/SEP.

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

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

Telephone: (804) 764-3658  
DSN 574-3658

FAX: (804) 764-6362

E-Mail: beardn@hqaccse.langley.af.mil

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

**DISCLAIMER:** Viewpoints expressed are those of the author and do not necessarily represent the policy of DOD, DAF, ACC or the author's organization. Information contained in any article may not be construed as incriminating under Article 31, UCMJ.

## CONTENTS

**MAY 1996**

ACC SP 91-1

VOLUME 4

ISSUE 12

### FEATURES

#### 4 READY TO ANSWER THE CALL

Lieutenant General John P. Jumper  
Commander, USCENTAF  
Shaw AFB SC

#### 7 SAFETY IN THE AOR--THEN AND NOW

Brigadier General Orin L. Godsey  
HQ USAF/SE  
Kirtland AFB NM

#### 26 SAFETY IN THE DESERT

Colonel Allen G. Craton  
USCENTAF Chief of Safety  
Shaw AFB SC

#### 28 IN THE ARENA-- CHALLENGE AND OPPORTUNITY

Brigadier General Terryl J. Schwalier  
Commander, 4404 Wing (Provisional)  
Dhahran

### DEPARTMENTS

FLIGHT SAFETY

10 21 24

GROUND SAFETY

23

WEAPONS SAFETY

16 31

MISCELLANEOUS

18 20

AWARDS

12 32

FLEAGLE

15

# Accent on Safety

**W**hen I arrived at HQ ACC last September, I asked *The Combat Edge* staff to develop consecutive special editions of the magazine dedicated to ongoing operations and specific aspects of the command. This issue is the first of three that will look at our operations in the Gulf, in Bosnia, and then focus on safety in the Air National Guard.

For this "Desert Special Edition," we selected a few current and a few former "Safety guys." First, and foremost, is Lt Gen Johnny Jumper, Commander of U.S. Central Command Air Forces. General Jumper was the Chief of Safety in the 474th Tactical Fighter Wing at Nellis circa 1983. I toured the AOR with COMACC and General Jumper last November, and it was readily apparent that the decision to give "up and coming" aviators a tour as a Chief of Safety subsequent to them commanding a squadron was a good one. The focus was definitely on making sure that every jet, piece of support equipment, and person was healthy and available should the need arise to go in harms way. As Gen Jumper says in his article, "...safety is essential in the planning and execution of every mission whether in peacetime or combat. A strong safety program helps maximize our combat capability by preserving the personnel and equipment we need to both maintain deterrence in the region and to successfully prosecute combat operations if deterrence fails."

Gen Jumper isn't our only leader in the AOR with safety experience. Brig Gen Terry Schwalier, Commander of the 4404th Wing (Provisional), is a former 432d Tactical Fighter Wing and 9th Air Force Flight Safety Officer. He knows exactly what to expect from his local FSO, and he certainly knows all the pitfalls of commanding a wing that flies 14 types of aircraft and has about 5,000 professional men and women assigned — the majority of whom are TDY. The legacy of the 4404th Wing is one of pride and safe mission accomplishment built by every person who accepted the challenges and exploited the opportunities while serving with the wing.

Brig Gen Godsey, the Air Force Chief of Safety, provides us with an insightful look at a number of historic issues particular to the Southwest Asia AOR as applicable today as when they were written almost 6 years ago. The historical perspective of our desert operations is essential. As Gen Godsey explains, "The Iraqi invasion of Kuwait pulled the U.S. armed forces into the desert area of operations. Now that we've fought and won a war there and have nearly 6 years experience in desert operations, we have a good concept of safety in the AOR. History, though, will not hesitate to teach us the same lessons over and over again. We must not become complacent about what was learned."

Despite 6 years of continuous presence in Southwest Asia, there are still many obstacles to safely carrying out our mission: harsh climatic conditions, inadequate facilities and equipment, high operations tempo, and stress from extended TDY operations just to list a few. We continue to work on correcting and removing some of these obstacles, but some are beyond our control. They are part of the operational risk associated with our business and must be addressed as such. However, we cannot let these obstacles and risks overpower our mishap prevention efforts. As you read this special edition "about the desert by the people in the desert," learn from the collective experience offered and prepare yourself and your unit for your turn "In the Arena." Ho Yen-Hsi extolled the virtues of preparation centuries ago, "To not prepare is the greatest of crimes; to prepare beforehand for any contingency is the greatest of virtues." Read, enjoy, and learn — your opportunity is coming.

**Colonel Zak Tomczak**  
*Chief of Safety*





**A strong safety program helps maximize our combat capability by preserving the personnel and equipment we need to both maintain deterrence in the region and to successfully prosecute combat operations if deterrence fails.**



**T**he vigilance U.S. Central Command Air Forces provide in the Arabian Gulf Region is as imperative today as it was 5 years ago during Desert Storm. Over the last half-decade, Saddam Hussein has rebuilt his military and continues to pose a serious threat to countries in the CENTAF area of responsibility (AOR). Despite sanctions, the Iraqi Air Force flies nearly 30,000 sorties per year, while the Republican Guard continues to step up its military exercise program. The Iraqi threat is real, formidable, and they can be in Kuwait City in the time it takes to drive from Washington DC to Richmond VA.

To counter this threat and maintain stability among our allies, CENTAF forces play a prominent role in the AOR through Operation Southern Watch (OSW). The forces

deployed for OSW support 120 aircraft that enforce the no-fly/no-drive zones at the 32d parallel in southern Iraq. Some 5,000 people — including about 300 people based at Al Jaber Air Base, Kuwait, and just a takeoff roll from the Iraqi border — support an ops tempo which produces 100 combat sorties a day. Their professionalism and dedication in maintaining air superiority in the region is unparalleled in the Air Force.

Another accomplishment that is less publicized but certainly no less satisfying is our safety record in the AOR. When you think combat environment, safety is not normally the first thought that leaps to the foreground. However, safety is essential in

the planning and execution of every mission whether in peacetime or combat. A strong safety program helps maximize our combat capability by preserving the personnel and equipment we need to both maintain deterrence in the region and to successfully prosecute combat operations if deterrence fails.

As with any theater of operation or AOR, there are unique challenges to safe operations. For the CENTAF AOR these challenges evolve from the difference in performing a mission in a distant, high threat environment, with an ops tempo that

*Lieutenant General John P. Jumper  
Commander, USCENTAF  
Shaw AFB SC*

# Ready to Answer



# er the CALL

is the highest the U.S. military has ever encountered without overt hostilities. Within the CENTAF AOR several of these challenges deserve elaboration.

The first and most obvious factor we encounter is the very unique environment in which we operate. Climatically, the weather in the AOR is one of extremes with temperature variations of 40 or 50 degrees over a 24-hour period not uncommon. These extremes take their toll on our equipment and personnel. An aging vehicle fleet combined with a cavalier attitude toward the speed limits has contributed to the loss of 6 lives in the last 3 years. Additionally, our unfamiliarity with the area, combined with even a momentary compromise in discipline may allow us to take a short-cut that can jeopardize safety. One example is a tragic mishap that occurred when EOD personnel visited a bombing range without following all the established procedures. This short-cut resulted in a crippling explosion.

The second factor has to do with our people. Emotions, attitudes and perceptions can sometimes become disproportionately intensified when our people operate under a higher level of stress for a prolonged period of time. Separation from family, operations tempo, perceived and sometimes real threats to personal safety, can all build to the point where someone may lose their focus on the mission or their grasp of situation awareness. We all know that our operations are not compatible with people who are not mentally alert 100% of the time. At the opposite end of the personality spectrum are those individuals who become so mission oriented that they develop tunnel vision. If we allow our view of the operation to become distorted or too narrow, we can find ourselves taking short-cuts that may compromise safety and risk the success of the very mission we are striving to accomplish. It is imperative that we continue to monitor those we lead and supervise.

While I'm talking about safety, I'd like to change course just slightly to address a concern that poses a potential threat to

safety in a broader sense, not only in the AOR, but also here at home. Again, it primarily concerns our most valuable resource...people. Since Desert Storm, the Air Force has been reduced by almost 30%. A lot of this planned reduction came from the retirements and separations of our experienced supervisors, operators, and technicians. This loss of experience has produced an overall decrease in experience levels while mission demands across the force have increased. As a result our units are working harder and more efficiently than ever. However, while we still possess that same talent, skill, and spirit that has been responsible for our success in the past, we no longer have an abundance of experienced people to turn to.

Also, discussions about flying safety tend to conjure up reminders of lectures from your mother about picking up your room. Think of it this way: In combat we call flying safety survival. Further, the same tactical errors that could result in combat losses cause many of our peacetime mishaps. Our job in peacetime is to be just as conscious of safety as we are in combat.

Even in this "Year of Rebuilding" the high ops tempo of the Air Force is not expected to diminish. This will require us to leverage our experienced personnel as we develop the seasoned confidence and experience in our younger force. Supervisors must ensure training objectives, procedures, communications, supervisory and individual responsibilities, are clear and properly focused. At the same time I count on each of you to uphold our standards and to maintain a keen sense of mutual support both in the air and on the ground. This mutual support, or watching out for each other, is essential to our success and survival. As commanders, supervisors, and co-workers we must stay alert to changes in the environment and changes in our teammates. Our people are still the best fighting force in the world. And as we grow stronger and accumulate valuable experience, I remain confident that we are ready to answer the call...again. ■

# SAFETY in the AOR

## ★ Then and Now



*Brigadier General Orin L. Godsey  
HQ USAF/SE  
Kirtland AFB NM*

**I**n September 1990, the Air Force Inspection and Safety Center, the predecessor to the Air

Force Safety Agency and now the Air Force Safety Center, prepared a TIG Brief special supplement pamphlet Desert Shield. Getting Ready. If you can find a copy, pull it out, shake

# Safety in the AOR THEN and NOW

the sand out of the pages, and read it carefully. The pamphlet highlights a number of issues particular to the Southwest Asia AOR and several that apply everywhere in the Air Force. In case you can't find a copy, I would like to take some time to discuss some of the items of concern that are still worthy of emphasis today such as risk management, aircraft recognition, visual illusions, and fatigue and to give you some of my philosophy regarding two other important safety components — discipline and leadership.

**Risk Management:** Development of the Air Force's Operational Risk Management (ORM) program is in full swing. An Air Force Instruction and an ORM Process Guide are being developed and will be going to the MAJCOMs for coordination in the very near future. General Fogleman and Secretary Widnall have been briefed on the concept, and plans are in the works to present ORM at Corona Top this summer. While the term ORM is relatively new, hazards, risks and the management of those risks have been part of the safety equation for a long time. The Desert Storm pamphlet stated: "*Safety and operations go hand-in-glove. If a corner must — repeat, must — be cut,.... decide how close you can cut it and how much of a reduced margin you will accept. Critically analyze who is authorized to make that decision.*" While the words are a little different, they echo the three basic tenets of ORM: 1) Do not accept unnecessary risk; 2) Make risk decisions at the appropriate level; 3) Accept risk when benefits outweigh costs. There will always be new environments, new tasks, or missions without specific or complete guidance. The only way to continue to operate safely is a disciplined approach to identifying the hazards and following the basic ORM rules to manage the associated risks.

**Aircraft Identification:** The Desert Shield pamphlet cautioned: "*Positive ID of friendly and enemy aircraft. Many look alike. Be*

*concerned with who is rolling in on you — equally, who are you rolling in on? MODE IV IFF encoding up-to-date?*" In the wake of 2 Air Force F-15s, under AWACS control, shooting down 2 Army helicopters, this guidance is cruelly prophetic. The validity of this 1990 caution was borne out at the cost of 2 aircraft, several careers, and tragically, 26 lives.

**Visual Illusions:** "*Low-level flight illusions, especially altitude perception. Lack of horizon (day and night).... Featureless terrain - tend to fly lower than desired; can result in more eyes-in-the-cockpit time.*" Low-level flight over the desert has been likened to low-level flight over water. The lack of discernible surface features means there is a tendency to fly lower than when we can see trees, bushes, etc., that provide altitude cues. Lack of terrain features also means more time must be spent heads down to accomplish navigation requirements. In addition, "*Haze, dust, and blowing sand are very common. Visibility may be reduced up to 18,000 ft across a line more than 100 miles wide. Down lower, all 360 degrees of the horizon can be hazy and indefinite at the same time.*" At night, when there is minimal ground lighting and the horizon is completely obscured, it may be difficult to distinguish ground lights from stars. Any combination of these factors can lead to dangerous spatial disorientation. The problems are compounded by NVG use and cockpits that are not completely NVG compatible.

**Fatigue Problems:** Whether associated with "Ops Tempo," or any other conditions of a deployment, fatigue continues to be a problem almost everywhere in the Air Force. It was a factor in the loss of a C-21 in Alabama, an F-16 out of Aviano, and many other mishaps and near mishaps. Several factors make fatigue problems particularly insidious. Fatigue is usually accompanied by a state of complacency, so self-assessment of fatigue is often marked by underestimation and denial.

This coupled with the fact that motivation and sheer determination can overcome moderate to severe fatigue for brief periods means we often fail to see initial decreases in performance. Mental performance falls off faster than physical performance, so the ability to judge just how impaired you are just isn't there. Signs to look for are slower performance at tasks that are self-paced and more errors on work-paced tasks. Lots of single-seat tasks (checklists, altimeter setting, etc.), without immediate feedback, are particularly prone to undetected errors or omissions. Flight isn't the only arena where performance suffers. Poor judgment and slow performance cost us on the flight line, in the shops, at our desks, or even just driving to and from work. The only remedy for fatigue is sleep. And even after you've adjusted to the new time zone and are well rested, you're still at your worst between 0300 and 0600L.

The bottom line is that each of these factors mentioned in the TIG pamphlet are as important today during peacetime as they were when we prepared for our success in Desert Storm. Keeping these factors in mind during any mission enhances mission success and your safety.

Now what about those two other elements I mentioned at the top of this article — discipline and leadership? Today, our support of contingency operations continues unabated with increased taskings occurring almost daily. Even with these increased taskings, we have managed to keep our mishap rates at a low level — a tribute to the hard efforts of all AF personnel. But, this is not to say we can rest on our laurels and that safety nirvana has been achieved; it hasn't, and we need your awareness and common sense to keep us out of trouble.

During the last year, we've experienced a number of Class A mishaps that indicate a decline in aircrew discipline and training. The C-21 mishap indicated problems with checklist discipline and CRM issues. In another incident, a crew member was allowed to fly when he presented a hazard to himself and others — a fact known to supervisors for years, but not adequately addressed. A final mishap involving an F-16 indicated poor EP

proficiency, lack of checklist discipline, and loss of situational awareness. In each of these mishaps, sound checklist discipline, airmanship, and proper management practices would have prevented these mishaps from occurring.

The leadership challenge of keeping your folks out of harm's way involves identifying the potential risks early before they affect the ability to do your mission. Proficiency, system knowledge, and basic airmanship often become secondary to supporting the mission, but are equally important to sustaining your capability for future operations. Complacency often becomes common place when a standard mission or operation becomes routine. Challenging personnel to continue to improve the way a mission is planned, accomplished, and critiqued helps alleviate much complacency and results in a more focused approach. A strong culture, nurtured by effective leadership that emphasizes identification of problems and follows up on those immediately, provides a climate that fosters open communication and empowerment to those closest to the potential hazards. Utilizing your personnel for feedback on risks associated with your operations provides the key bellwether for your safety health. Simply hoping that the "bad" will go away will not solve the problems. Tough challenges and decisions must be made to ensure the safety and continued success of your mission. Leadership remains the deciding factor in whether you manage your risks appropriately and succeed, or gamble with the risks hoping they don't catch up and lose.

The Iraqi invasion of Kuwait pulled the U.S. armed forces into the desert area of operations. Now that we've fought and won a war there and have nearly 6 years of experience in desert operations we have a good concept of safety in the AOR. History, though, will not hesitate to teach us the same lessons over and over again. We must not become complacent about what was learned.



**“K**now yourself and know your enemy, and in a hundred battles you will never lose.” These words have served military forces well for hundreds of years. In the 4404th Operations Group, we know our enemy inside and out. We’ve studied him for years, analyzing his every move. He can hardly move a tank without us knowing it. We have detailed contingency plans and we’ve considered every conceivable option. But Iraq’s military forces are only part of the enemy order of battle. There are other enemy forces at work in the AOR. They are covert, insidious, hard to detect, and even harder to analyze. They have been able to infiltrate our operation at times and are often ruthless. These forces have spilled our blood and chipped away at our equipment, our national treasures. They are our internal enemies; namely, human factors and the environment.

Operating from a remote location so close to a potential combat zone poses several unique human factors risks. In a situation where the day-to-day tasking is often similar, complacency is a constant enemy. Several weeks of flying the same defensive counter air profile or electronic jamming pattern can cause our Operation SOUTHERN WATCH missions to become “routine,” especially for aircrews who are over here on their second, third, or even sixth rotation. It’s easy for the word “standard” to dominate a flight briefing. Because units rotate here every 90 days, stagnation is hard to avoid; so we must constantly watch for signs of our people trying to just survive rather than thrive.

Several environmental factors are at play here as well. Extreme temperatures, long hours, and high operations tempo can easily lead to fatigue. Facilities and equipment are often “bare bones,” creating the need for some ingenuity tempered with judgment to accomplish the mission. In addition, operating from an airfield surrounded by desert poses a significant foreign object damage (FOD) hazard.

How do we attack these internal threats? I believe the concepts that help us prepare for combat against our external enemies works just as well against our internal

threats. In the 4404th Operations Group, our master attack plan has three fronts: creativity and innovation, sharp mission focus, and leadership by example. Our safety plan uses the same approach.

#### **CREATIVITY AND INNOVATION**

Our operations group receives a fresh group of squadrons and virtually all new personnel every 90 days. We view this as a tremendous opportunity to get new ideas, capitalizing on the core competencies of each individual and unit. In combat, successful commanders see obstacles in their path as opportunities to apply the skills and talents of their people to achieve the objective. We strive to do the same during our day-to-day operations here in Southwest Asia. Flying over southern Iraq affords us the opportunity to scout out the targets we will be tasked to hit in wartime, practice attacking them, and evaluate and refine our tactics and thereby our chances for success.

Honing our combat skills involves more than flying patrols over southern Iraq. We continuously employ alongside our allied partners in large scale exercises outside of Iraqi airspace. These offer a one-of-a-kind chance to maintain proficiency in those fundamental flying skills that tend to diminish over time. They also offer a unique opportunity to improve our interoperability with those other forces that we will fight with if called to do so. And they permit us to maintain peak proficiency where the rubber meets the ramp — our crew chiefs, weapons loaders, and specialists get to turn the aircraft at a high ops tempo just as we would in the beginning hours of any conflict. Innovation is encouraged throughout. The aircrews work closely with our allies in developing the exercise scenario plan. Our maintainers must overcome the natural obstacles that we find at any remote location.

The facilities’ shortfalls that are to be expected when operating from our remote desert locations have forced us to learn and apply better, more efficient techniques for getting the job done, techniques that we can use both here and at our home units when we return. It is critical, though, that we take the time to

institutionalize those lessons into our daily operations. As professional warriors, we must study the experiences, successes, and failures of those who went before us and keep good records of challenges we've overcome and the solutions that worked. Our successors won't gain much if the lessons we learned are forgotten when we depart. "Make it better, make it last" isn't just a catchy phrase around here — it's the continual ramp-up in which we pride ourselves to achieve a higher performance level over the long run. Institutionally capitalizing on these lessons makes us smarter, and by definition, safer.

#### **SHARP MISSION FOCUS**

The mission of the 4404th Operations Group is two-fold. First, our daily operational sorties over the skies of southern Iraq serve to ensure compliance with the UN-mandated "no-fly" zone. Secondly, we are also here to protect broader United States interests throughout Southwest Asia. Because the threat is so immediate and unpredictable in the region, being ready for "Day One" of combat is the guiding principle in our daily thinking. We keep our operations combat-oriented by remaining steadfastly focused on the mission. This involves knowing our purpose, determining our priorities, and executing with discipline.

Daily activities and constant short-range crises make it difficult to stay focused on the long-term objectives. Every day we must ask ourselves, "does this activity support our mission, and does it make operational and tactical sense?" If not, then we knock-it-off and get back to the basics, our purpose — the mission.

Given a clear purpose, we must then set our priorities. Preserving America's blood and treasure is high on this list. Even though we are flying in a combat zone, there's never a good reason to press the limits to get an aircraft to the target. Our priority must be to improve our combat capability while at the same time safeguarding our resources so that we are ready, with all our assets, to fight when the day comes. This means we don't need to push the weather, press our fuel, or take an aircraft with degraded systems over enemy

territory. On the ground, the same principles apply. While we all must get our job done with limited resources, we don't cut corners to do it. Our priority is to do it right the first time.

Then, we must execute with discipline. We must know and follow procedures, understand the theater rules of engagement, and do what we know is right. It means sticking to the tech data; it means following the procedures that have been thought through beforehand. It boils down to being professionals — being the best at what our nation has entrusted us to do, and making sure we are here to do it again tomorrow.

#### **LEAD BY EXAMPLE**

A safe operation starts with the individual and results in a process that minimizes risk, preserving our combat resources and enhancing our effectiveness. On the individual level, leading by example is often nothing more than knowing right from wrong, and then doing what is right. Doing not just what the books say, but also applying some simple common sense. Because we are all leaders at some time, we must know these standards and adhere to them or we begin to put ourselves and our equipment at risk. This means everyone wears a seat belt, we all do FOD checks, and we all pay attention to the details.

To channel and coordinate our personal efforts, we develop procedures. This adds teamwork and organization to our individual discipline, creating a synergistic effect. Whether operating on the ground or in the air, good discipline and solid processes are contagious, and a common thread found in any safe, combat ready unit.

In conclusion, our vision statement says it all: "To integrate deployed units into the most professional, most tactical, and safest composite fighting force in the world." Our combat capability is founded on these four mutually supportive themes — fully integrated, highly professional, tactically oriented, and inherently safe. They are the foundation that ensures success against all our enemies, internal and external. If we continue to be creative and innovative, maintain our mission focus, and lead by example, we will be inherently safe. ■

# AIRCREW SAFETY AWARD OF DISTINCTION

*1Lt Brett M. Provinsky, Capt James E. Murray*  
*333 FS, 4 FW*

*Seymour Johnson AFB NC*



Capt Murray and Lt Provinsky were number four of a four-ship on a day Surface Attack sortie. The sortie was briefed and flown in accordance with the Basic F-15E upgrade syllabus for Lt Provinsky's initial training in the Strike Eagle. Capt Murray is a highly experienced Instructor WSO, with over 1,200 hours in the F-15E, while Lt Provinsky is a recent pilot training graduate with less than 50 hours in the Eagle.

The sortie was uneventful until the full-stop landing. As the wheels touched down, both main wheel brakes suddenly locked.

The tires blew instantly, and the jet skidded on exposed wheel rims while the crew reacted to the situation. The aircraft's nose gear slammed to the runway. Lt Provinsky quickly selected "pulser" braking and used rudder inputs for directional control. Both aircrew lowered the tail hook and prepared for a cable engagement. The jet skidded to a violent, fiery stop in less than 2,500 feet.

Capt Murray immediately notified tower and the SOF that their aircraft was on fire and to roll the crash trucks. The crew then applied a dose of common sense that saved the Air Force from a more serious mishap. They elected to keep the engines running, even at great danger to themselves, rather than quickly shut them off and activate their emergency ground egress, until the fire crews arrived. This action prevented unscavenged fuel from being poured on an already serious fire beneath the aircraft. When the fire was extinguished, the crew egressed on the runway. The aircraft was repaired and returned to flying status within days.

# CREW CHIEF EXCELLENCE AWARD

*SrA Kevin R. Hawes*  
*952 AGS, 552 ACW*  
*Tinker AFB OK*



During the lubrication portion of a scheduled aircraft wash, Amn Hawes discovered that the installation of the left fillet flap jackscrew on an E-3 aircraft was incorrect and that the retaining gimbals were missing. He promptly ensured the aircraft was impounded and contacted the wing safety office and Quality Assurance personnel. They directed a one-time inspection of the flap jackscrew installation on all E-3 aircraft. This one-time inspection identified two other aircraft with the same discrepancy. If the fillet flap jackscrew came loose, due to the missing gimbals, it would have

broken off at the mount. The broken fillet flap could have potentially damaged the adjacent flap. If this failure was to occur in flight, it could have generated severe vibration, aircraft roll, and led to an in-flight emergency. Amn Hawes' thoroughness, attention to detail, and astute decision making have directly impacted the flying safety operation of the 552 ACW.

# FLIGHT LINE SAFETY AWARD OF DISTINCTION

*SSgt Jerry L. Horne, Jr., SSgt Gina L. Welch*  
*391 FS, 366 WG*  
*Mt Home AFB ID*

A large group of squadron personnel were gathered on the ramp for a "Fini Flight." Sergeants Welch and Horne were watching the proceedings from the flight line expediter truck. As the aircraft pulled into the chocks, Sergeant Welch noticed an individual from the group pulling the hose from a nearby 150 pound Halon fire extinguisher with the apparent intent of "hosing down" the WSO. Alerted by Sergeant Welch, Sergeant Horne quickly exited the expediter vehicle and intercepted the individual with the fire extinguisher hose. When informed the fire bottle contained Halon and not water as he thought, the individual immediately surrendered the hose to Sergeant Horne. Upon further investigation, the fire extinguisher was found to be fully armed and ready for discharge. A danger tag was attached to the fire extinguisher and the base fire department notified. The quick actions of Sergeants Welch and Horne prevented an otherwise festive event from becoming a serious mishap.

# GROUND SAFETY INDIVIDUAL AWARD OF DISTINCTION

*MSgt Linda M. Haring*  
*55 MDSS, 55 WG*  
*Offutt AFB NE*

Sergeant Haring's diligence in making the hospital a safe place to work resulted in such recent safety awards as the 55th Wing Outstanding Ground Safety Award-Large Unit and the National Seat Belt Honor Roll-90 Percent. The 1995 Joint Commission of Accreditation of Healthcare Organizations (JCAHO) survey resulted in accreditation for the hospital; a large portion of this inspection involved personnel, fire and life safety measures and programs, of which Sergeant Haring has been an integral part of implementing. Her achievements through her leadership of the hospital Safety Program are numerous and on-going to include: oversees safety training for 50 work centers; publishes a monthly safety chronicle for hospital personnel; set up a master hazardous materials inventory and procured a storage disposal site; procured and oversaw installation of high visibility material safety data sheets and eyewash stations in sections using hazardous chemicals; and initiated a safety quiz as a tool to identify areas needing improvements. Due to her outstanding reputation, she was selected as a member of the base Tiger Team to develop an action plan to decrease all ground accidents/incidents by 15 percent. Sergeant Haring became a member of the Greater Omaha Safety Council, where she networks with other hospitals in the metro area to make available the latest safety information and OSHA guidelines.





## PILOT SAFETY AWARD OF DISTINCTION

*1Lt Joseph D. McFall  
389 FS, 366 WG  
Mt Home AFB ID*

On 30 Jan 96, Lt McFall was the number four wingman of an F-16 air combat training mission. The four-ship had just entered the working area and completed their G awareness maneuvers when Lt McFall heard and felt a loud bang. He immediately called for a termination and referenced his engine instruments. All indications were normal at military power and 250 KCAS. As he surveyed his engine instruments, the engine banged again. He immediately pulled the throttle to idle and applied emergency procedures for Engine Stall Recovery while simultaneously turning to Boise Airport, the nearest divert base. As Lt McFall completed his turn to put Boise on the nose, he was low on airspeed and pushed the throttle up smoothly. As the throttle approached MIL, the engine banged a third time and as he pulled the throttle to idle, the engine banged a fourth time. Lt McFall shut the engine off, initiated an airstart, and jettisoned his centerline tank. The engine rapidly restarted with all indications normal. Lt McFall started a climb to get a 1:1 altitude to mileage ratio from Boise and set up for a precautionary flameout landing. As he advanced the engine to MIL, the engine banged a fifth time. He reduced the throttle to mid-range to continue his climb. As he reached a 1:1 ratio, he pulled the throttle to idle and left it there for the remainder of the approach. Lt McFall flew a textbook flameout approach and landing to Boise. Lt McFall then worked with local emergency response personnel to ensure the safe shut-down of his aircraft. His confidence and superb aviation skills were key to saving a critical Air Force combat aircraft.

## WEAPONS SAFETY AWARD OF DISTINCTION



*SSgt Michael Dimler, SSgt John W. Knowlton,  
SSgt Russell M. Litzau, Sgt Bobby L. Singletary,  
SrA Lee C. Gouge, SrA Tanya S. Williams,  
A1C Shawn E. Greene  
2 MUNS, 2 BW, Barksdale AFB LA*

In support of exercise BULWARK BRONZE, an empty trailer movement was traveling back from the flight line to the weapons storage area. Sgt Dimler (Tow 1) had crossed the north end of the runway and turned onto the parallel east taxi way when a vibration began to emanate from the front of his MB-4 Eagle Bobtail. Even though he eased off the accelerator, the vibration increased until a loud boom came from underneath the chassis and the tug seemed to jump. As Sgt Dimler rolled to a stop, Sgt Knowlton in Tow 6 noticed sparks and an explosion come from under Tow 1. Sgt Knowlton immediately radioed Sgt Dimler that his vehicle was on fire, then ran to assist the crew. Meanwhile, Sgt Litzau and Amn Gouge in Tow 2, Sgt Singletary and Amn Williams in Tow 3, and Amn Greene in Tow 6 grabbed portable fire extinguishers and joined Sgts Dimler and Knowlton in fighting the fire. With seven streams trained on the underside of the tug, the blaze was quickly extinguished. After dealing with the immediate emergency, Amn Gouge notified Munitions Control of the situation and requested aid from response agencies. A safety investigation later found that the yoke on the forward drive shaft failed causing the vibration. Eventually, the universal joint at the front differential disintegrated allowing the drive shaft to strike the ground, lodge in place and shear off the lower half of the transfer case. With the protective case gone, gear oil spewed out onto the hot exhaust and ignited. The quick, decisive and appropriate actions of these seven individuals allowed the crew of the stricken tug to escape without injury, while preventing a \$66,000 munitions tow vehicle and a \$490,000 munitions trailer from sustaining serious damage.

**Fleagle**

WELL, GUYS, HERE WE ARE,  
READY TO DO OUR PART IN  
TH' LAND OF SAND.



IT SURE DO LOOK DIFFERENT FROM ANY  
PLACE I'VE SERVED IN TH' PAST.

SAME HERE.



YOU CAN SAY  
THAT AGAIN.



EVERYBODY SEEMS TO BE RUSHING  
TO GET INSIDE.

YA' THINK WE IS  
UNDER ATTACK?



I...I COULD BE WRONG (SPIT) BUT I THINK  
WE HAS JUS' BEEN THROUGH OUR FIRST  
SANDSTORM. (SPIT)



**Maj Tom "Vegas" Dietz**  
4404 WG (P)/SE  
Dhahran

**TSgt Jeff "Meat" Lohf**  
4404 WG (P)/SEW  
Dhahran

**O**ur squadrons deploy more often, and to more austere locations, than we have in recent memory. Almost always, we find ourselves working out of facilities and airfields that are below our standards back home. Often this includes an aircraft parking ramp that is smaller than required by Air Force Instructions and DoD standards. There is a temptation at this point to ignore the instruction, chalk it up to contingency operations, and "accept the risk."

Think about it though. Is this really what you want to do? Will it be easy to explain to a widowed spouse that "John was killed by an avoidable accident?" Rather than throwing in the towel on safety when space is less than required, a common sense approach and a little planning and knowledge can result in a "conscious minimum risk plan" vice an "accepted risk plan." All it really takes is three basic things; a basic understanding of the "Quantity Distance" (QD) concept, a little bit of preplanning and creativity, and an understanding of common pitfalls.

#### **QUANTITY DISTANCE**

The concept of QD is simple, the rules that go with it are not, but that's why units have weapons experts. Concept understanding is what the average individual, and especially commanders, need to know. Simply stated, the expected damage from an explosion is a function of the quantity of explosive material and the separation distance. To apply this concept to your parking ramp, you need to ensure you know some basic information.

First, know the weapon safety characteristics of your standard munition loads. This includes their net explosive weight, frag patterns, built in safety features, and susceptibility to propagation. Your weapons experts should already know this information. All you have to do is ask.

Next, learn how much spacing you need between your fully loaded aircraft to prevent explosive propagation of an adjacent aircraft's munitions. This is commonly called "intermagazine distance" or K11. If at all possible, you would like to keep your aircraft this far apart.

If this is not possible, "grouping" is an option. It consists of parking your aircraft in groups of two or more. Using this approach, less spacing is used between individual aircraft, with greater distance between

groups. In this case, you are conceding the loss of a group of aircraft should a serious incident occur, but you mitigate the possibility of losing your whole fleet. A total loss may be the case if all aircraft were evenly spaced vice grouped, given less than required parking space.

Next, find out how far away your aircraft need to be from your operating facilities and other aircraft to prevent major damage. This is referred to as "intraline distance" or K18. Incidentally, this is also the distance you are looking for between groups discussed in the previous paragraph. Keeping your loaded aircraft K18 distance from your related facilities, like maintenance hangars and operations buildings, prevents one accident from shutting down your whole operation — a likely scenario if your maintenance facility blows up.

Lastly, know how far your ramp needs to be from non-related facilities, commonly called the "clear zone" or "inhabited building distance." This includes anything from the communications squadron to an elementary school. Realize that individuals in these facilities are largely unaware of the risks associated with your explosive operations and, therefore, cannot be counted on to have the level of awareness of directly involved individuals. Hence the greater distance.

All of the above mentioned distances are based on either the net explosive weight (NEW) or the maximum credible event (MCE) of your munition loads. The explosive characteristics of the munitions determines which figure is used for distance calculations. NEW is simply the sum of the explosive weight of all the munitions on one aircraft and is generally the figure required with bombs loaded. MCE takes into account that some weapons have shaped or directional explosive patterns, eliminating the chance of propagation to other munitions. This is common in missiles. Using MCE when appropriate, permits aircraft to be parked closer together without increasing risk. It pays to know if this criteria applies to your standard loads.

#### **PREDEPLOYMENT PLANNING AND**

Flight line weapons safety at deployed locations

# TY AT DEPLOYED LOCATIONS

## CREATIVITY

All of the information discussed thus far can be calculated with no knowledge of your deployment location. I recommend commanders have their experts calculate these figures and compile the information on a "cheat sheet." You may also ask them to determine the parking ramp area required to load all of your assigned aircraft with your most likely NEW. This will put you in a position to make your preliminary requirements known as soon as you are assigned a deployment location.

At this point you are ready to be assigned a deployment location and tasking. If your desired ramp space is not available, all is not lost. You may not need to load live munitions on all your aircraft simultaneously. Sortie rate, average sortie duration, operating window, integrated combat turn plan, phase flow, and a myriad of other practical requirements may actually reduce the number of "hot spots," and hence ramp space, you actually need. For example, if conducting 24-hour a day operations, you will not have all your aircraft on the ground, loaded live, at any one time. Therefore, you don't need a "hot spot" for every aircraft. The possibilities are too numerous to discuss in one article, but the bottom line is think about your operation and be creative.

Despite all your imagination, it may not be possible to safely separate your aircraft and facilities. Believe it or not, it is still not yet time for the towel. The "compensatory options" plan is still available. This entails developing procedures to reduce risk. For example, evacuating certain facilities during high risk times or disconnecting umbilical or fire leads until the last practical moment. Once again, creative thinking can greatly enhance safety.

To gain some practical experience, you may want to pick a possible deployment location and tasking and develop a plan based on existing facilities. A practice Phase I exercise may be a good time to accomplish this.

## COMMON PITFALLS

Before I close, let me shed some light on some of the pitfalls that may bite you in a provisional

operation. First, if replacing an existing unit, don't assume that their parking plan is right for your unit. They may have different aircraft, munitions loads, taskings, or just not put enough thought into it. Once you arrive, it's your people and equipment that are at risk — be accountable.

Second, don't wait until you arrive to develop your plan. Once you park your aircraft, any adjustments must fight the "resistance to change." An order from the commander is obviously enough to make change happen, but it will add to the already demanding work load associated with a deployment and beddown. Instability is fatiguing and negatively impacts morale. Do it right the first time and save your greenstamps.

Third, despite having said "do it right the first time," if it's broken, by all means fix it. Contrary to common beliefs, we have had serious weapons accidents in the recent past. I'm personally aware of two missile firings on the ground since 1990. It can happen and the results can be catastrophic. It's worth the effort to adjust your plan, despite the extra work.

Fourth, coordinate your plan with other explosive operations. For example, if your F-15E aircraft loaded with forward firing ordnance are pointed at the F-16 CJ aircraft that provide SEAD capability necessary to get you to the target, you probably don't have the smartest plan. Also, don't forget to coordinate with other services and coalition partners. For example, you don't want your facilities or aircraft right next to a Patriot site.

Last, don't assume that someone else is going to develop your weapons safety plan. Ideally, there is a wing safety office with a highly trained, highly motivated weapons safety expert in place. There's a good chance, however, that he is unfamiliar with your aircraft, operational requirements, or munitions, or so busy that he doesn't get a chance to scrub your plan before you begin execution. It's ultimately the commander's responsibility to ensure his operation is as safe as practical.

In closing, as an individual working on the flightline and especially as a commander, know the basics of weapons safety when parking aircraft, plan ahead to know your unit requirements, put some time and creativity into developing your deployment parking plans, and recognize that it is your responsibility to make the ramp as safe as practical, contingency or not. ■

# THE ART OF MAINTAINING A 90-DAY FOCUS



*By Maj Tom "Vegas" Dietz  
4404 WG (P)/SE  
Dhahran*

**I**t's your lucky day! You've just been notified that you or your unit is the right one for a new job. The new job is a 90-day rotation to a contingency operation in a foreign land with a vastly different culture. Oh by the way, you just PCS'd to your current base and your family is still settling into the local area. It's probably close to the Christmas Holidays or one of your children's birthday. The bottom line is that the timing stinks, but you are the person. You have two choices, you can whine and complain (and still deploy) or kick in your positive attitude and make the most of it. The purpose of this article is to help you

execute option B. In addition to making your deployment easier, a positive attitude will help keep you and your family safe.

The key to maintaining a positive attitude over a 90-day TDY is FOCUS! The art of keeping your mind and efforts on what you are trying to accomplish! Focus put men on the moon, won 30 Super Bowls, won Desert Storm, makes happy families, raises good children, keeps relationships together, solves problems, and the list goes on. With it, there is nothing you cannot do. Without it, you wonder aimlessly. If you are not focused you are ineffective and by definition, unsafe!

Typically, we receive plenty of help regarding mission focus. This is provided by our supervisors and commanders. Often, however, our personal focus is left to chance. Personal focus is what keeps our individual job performance up to speed. It also keeps our personal lives challenging and rewarding, as well as our families back home in good shape. It also helps us weather long separations. To maintain your personal focus you must plan ahead and be creative. Consider the following ideas to ensure you are focused on your next 90-day rotation.

Planning begins when you are first notified of an upcoming deployment. Hopefully you already have some personal goals that you are working to achieve. Learn about your deployed location and determine which goals you will be able to work toward while there. For example, college courses, fitness programs, religious opportunities, or smoking cessation.

Next, discuss your trip with your family. Educate them about where you are going and what you will be doing, if classification permits. Talk to them about their goals during your absence. Guide them in this endeavor if necessary. Be careful not to be directive. They will be more excited about things they want to accomplish vice what you think they should do. For example, I don't recommend tying success to grades in school unless it is something that motivates them. The goal is for your loved ones to be proud of their accomplishments when you return.

As departure time draws near, don't allow negative thoughts to creep into your actions. You'll be busy but make time for some family activities. Fun times will give everyone something positive to look back on during the 90 days of separation.

Once you arrive at the deployed location, scope the place out early. You may want to adjust your goals after you see exactly what is available and have a better idea of how much free time you will have. It is hard to keep on track if your goals aren't achievable. Ensure you set milestones for yourself. For example, if you are taking a class by correspondence, schedule your test for when you plan to be ready vice waiting until you are ready. A deadline will help you stay on track and prevent procrastination. Also, search for others that have the same goals

as you. Work toward them together. You can help each other and provide motivation when the going gets tough. In addition, ensure your supervisor is aware of your objectives, he may be able to factor this into the work schedule.

It is important that you don't drive yourself into the ground by being unrealistic. If your personal goals are keeping you up all night, you are going to do a poor job at work. The theory behind having these personal goals is to make you more effective and make the deployment seem quicker by staying challenged, not to put undue pressure on yourself.

Do not pester your family back home about their goals. They will most likely bring them up if they are on track. Instead, tell them how excited you are about your progress. This is enough of a gentle reminder if they have slipped in their efforts. In addition, they will see how your success is making you feel and it may become contagious. By all means, if they are on track with their plans, heap on the praise. Ensure your delight is genuine; however, if they bring up setbacks, offer words of encouragement.

As your deployment draws to a close, honestly evaluate your performance. Did you improve yourself? Did you make good use of your time? Were your initial objectives obtainable? What could you do differently next time? How will you continue your plan at home? Help your family do the same. Once again you must be tactful. It is much better to praise accomplishments than to criticize failures. Compare what was achieved to what would have happened if no goals had been set at all. Any movement in the right direction is a plus.

Extended TDYs are more prevalent now than they have been recently. Unless you plan on separating soon, long deployments will be a part of your life. Grumbling and complaining will just make these commitments more burdensome. Personal goals will keep your free time focused on something meaningful. Statistics prove that most accidents occur when our minds are unoccupied. Having a sharp focus will add meaning to your days, keep you alert, and ensure you return from your trip not only safe and sound, but a better person for it. ■

# A Valuable Lesson Learned

*Lt Col James D. Teigen  
436 TS Director of Safety Training  
Dyess AFB TX*

**D**esert Shield was into high gear when it happened.

Equipment, assets, and people had been deploying at an incredible rate. Every seat and every pallet was full en route to the desert. The sole focus was on getting to the fight and being ready for the fight before the fight happened. The field units and the headquarters staff were focused. All thought and action was directed toward

focus, and yet we forgot a valuable lesson — and that's the rest of the story...

It was during the hours of darkness, on that ramp thousands of miles away from the headquarters building, where I worked. While everyone was focused on the needs of the mission, it happened. The crew chief had worked long and hard getting the airplane ready ahead of schedule, so there was still a little time left before the crew was to show. The heat was still oppressive, even though it was late in the night. The crew

was still stifling hot. Unbeknownst to the rest of the workers and duty personnel that early morning, the crew chief settled in and went to sleep — never to awaken again.

Somewhere at that location was another set of individuals, in a bread van of sorts. They too were working long hours and were in the process of completing items getting ready for the morning launches. In addition to this pending mishap, the readers must remember that the ramp lights were not on due to war preparations. Or maybe it was because by moving the

making sure every spot, space, and pound of equipment going to the desert was to fight the war we would later fight. All this

chief was tired. With the thought of preparing for the launch of the mission ahead, the crew chief decided to grab a short cat-nap. The most obvious place was under the

masses of assets to a forward location, we ran out of illuminated ramp space. At any rate the crew chief slept in a darkened area, on a darkened ramp, on a dark piece of concrete.

The inevitable happened. The bread van made a trip

# Flight Safety and Contingency operations

*Capt Jim Hardin  
4404 WG (P)/SEF  
Dhahran*

**H**ow many times have you heard the saying "safety first"? Well, let me say that safety is not first! This is especially true for contingency operations — the mission comes first. My philosophy on safety can best be said as "doing the right things, the right way, at the right time." By virtue of this definition, safety is a natural by-product. The basics to flight safety, or any safety discipline, are merely identifying hazards to operations, communicating these hazards to the appropriate individuals, and recommending courses of action to abate the hazard. Once a course of action has been selected, follow-up to see if, in fact, the hazard is negated. In essence, we help the leadership with risk awareness and management. Achieving a high level of risk awareness is a tremendous challenge for any wing, but this is especially true for a wing such as the 4404th in Dhahran, Saudi Arabia. There are three keys to risk awareness: job knowledge, communication, and teamwork. Now that we have Ragin's philosophy out of the way, I would like to go into more detail on the basics, as I see it, of flight safety in contingency operations.

The first and most important basic is identifying hazards. As the flight safety officer it is imperative that you fly, in order to witness possible hazards first hand, and speak from a position of credibility. Next, you and your FSNCO have to get out from behind your desks and talk to the flyers, maintainers, SOF's, ATC personnel, and, probably most importantly, the host country safety personnel. The more often you are able to do this, the more mutual trust and respect you build. This can go a very long way in identifying hazards. As we all know, the process of building mutual trust and respect can take a long time, and during contingency operations you may only be there for 90 days. Therefore, it is critical that you start the process early and do it often. The key to identifying hazards is first-hand job knowledge.

The next basic, according to Ragin, is communicating the hazard to the appropriate individuals. The importance of this basic cannot be over emphasized. My impression is that "word-of-mouth" (WOM) just doesn't cut it! Individuals tend to believe this is just your opinion. Also, due to the high turnover rate of indi-

viduals and units during contingency operations, flight safety needs to ensure there is written guidance. This will help ensure that the ball doesn't get dropped when you leave and your replacement takes over. We need to incorporate our job knowledge and clearly express it in writing. Of course, we reference appropriate OI's, use our experience, and for good measure use common sense. This communication process can manifest itself in many forms, from correcting the hazard on the spot to developing a risk assessment using all available resources. This all depends on the hazard and its severity. Communication is the key to risk awareness.

Now that we have identified the hazard and communicated the hazard to the appropriate individuals we should provide solutions to negate the hazard. This step is sometimes easily overlooked as "not my job." On the contrary, proposing solutions is a very important part of the safety professional's job! Off my soap box now; depending on the severity of the hazard the courses of action could vary. First, as safety officers/NCOs we should suggest appropriate actions to minimize the hazard now.

# A Valuable Lesson Learned

Then, incorporating our job knowledge and common sense, develop a plan of action to eliminate the hazard from flying operations. Since the safety folks don't own the aircraft, commanders are responsible for selecting and implementing the correct solution. However, we need to provide the pros and cons to each course of action provided. The key to risk awareness is teamwork.

Now that a course of action has been selected our job is still not complete. We must continue to monitor the potential hazard to see if it indeed continues to be a hazard. The safety spot inspection program is an outstanding tool for monitoring the hazard. Additionally, this ensures that the course of action selected has been implemented appropriately or highlights when some fine tuning is required.

By incorporating these basics into contingency operations, as well as everyday operations, safety should be able to stay ahead of the eight ball. All of this is accomplished through job knowledge, teamwork, and communication. Using these keys, we can keep our risk awareness at a high level and ensure that we take risk only when absolutely necessary to accomplish the mission. ■

*(Continued from page 20)*

to the aircraft on that darkened ramp. The driver made a pass around the aircraft in a decreasing turn radius. As the vehicle passed under the wing, near the engine pod, the van ran over and killed the crew chief. It was the first loss of life in Desert Shield. It was a peacetime accident. It wasn't supposed to happen. The driver, ramp workers, supervisors, command leaders, and next of kin were all devastated.

The very next morning at our headquarters building thousands of miles away, the morning staff meeting started with the four star sitting at the end of the table. As the briefer got to the news of the loss of life, the general became more focused. His facial expression changed, the weight of the loss evident in his solemn look and somber demeanor.

He leaned forward and asked the question of the day, "Where was safety?"

The question of the four-star echoed in the room. It was a very tense moment for everyone in the room.

Nobody had a good answer, yet everyone knew. In the massive effort to get folks, machines, assets, and weapons into the theater, safety had taken a back seat. It had taken the loss of a life to bring to focus the need and the requirement to always have a safety presence.

For the next 2 days, safety folks from all over the country were joining the lines at the mobility counters and out processing to flood into the Desert Shield operating area. Safety became a priority in filling outbound chocks. There were additional UTCs and aircraft reservations made in those 2 days to help re-focus our safety oversights.

Safety is not a peacetime only concept. It preserves our warfighting capability. Today, that lesson has been placed into the warfighting guidance from the top down. We must never forget that safety enhances warfighting!

Today, when a unit deploys to a bare base forward location, it is tasked to deploy with ground and weapons safety expertise. The flight safety expert is deployed as a primary aircrew member, who can immediately fill the flight safety role upon arrival.

We cannot forget the hard learned lessons of the past: Benjamin Franklin's quote comes to mind.

For want of a nail, the shoe was lost;

For want of a shoe, the horse was lost;

For want of a horse, the rider was lost;

For want of the rider, the battle was lost. ■

# The Health Threat in the AOR

*Maj Charles "TACAN" Ellis  
4404 WG (P)/FS  
Dhahran*

**Y**ou are climbing out of Dhahran to flight level 240, en route to the skies of Iraq and you suddenly realize that what you thought was gas, is not gas. OOPS! You wouldn't be the first crew member in this predicament, and you probably won't be the last. However, with a few simple steps, you can reduce the chance of this uncomfortable and embarrassing situation occurring to you. Gastroenteritis (GE), or the trots, squirts, or runs to name a few codewords, has been the number one health problem in this AOR for military forces throughout this millennium.

There are several common sources of GE here in the AOR. The one everyone always thinks about is eating food from downtown, which is the most concerning one. This is a problem since the sanitation practices here are not the same as at home. The resulting illness will generally go away on its own; but in some cases, such as Salmonella or Shigella, the illness may require antibiotics or even hospitalization.

The food on base is wholesome and good. However, the menu does not offer a lot of variety; so most people start looking to downtown restaurants shortly into their rotation. Some things to consider if an off-base restaurant appears too tempting to pass are:

- \* Only eat at a restaurant that appears clean.
- \* Eat only foods served steaming hot.
- \* Drink only bottled water or canned beverages that you witness the seal being broken.
- \* Do not drink beverages served over ice since you cannot be certain of the origin of the water used to make the ice.
- \* Inspect the utensils for cleanliness before using.
- \* Wash your hands before eating, this also gives you a chance to look around at the restaurant.
- \* Make your flight surgeon check out the kitchen.
- \* Lastly, consider having the lowest ranking Lieutenant sample the food first.

Following the above practices alone does not ensure immunity. Recently in the AOR, a number of people have been getting sick without going downtown. This is due to a viral GE making its rounds. In fact, since we live in close quarters with a large number of people, all contagious illnesses have the opportunity to spread rapidly. This makes good hand washing very important. A number of the dining facilities even have hand washing stations at the start of the line.

Awareness and precautionary measures are the key to health safety in this neck of the world. Practice these few simple steps and your time here will be much more enjoyable and safer. ■

# CONSISTENT TANKERS IN

*Capt Jean Voigt  
4408 ARS (P)/SEF  
Dhahran*

**T**he KC-135 Stratotanker has been involved in Southwest Asia air operations since before the Gulf War. During that time, the 4408th Air Refueling Squadron (Provisional) has flown thousands of sorties and offloaded millions of pounds of fuel. But those numbers have no meaning by themselves. That's because the role of the tanker is force enhancement. The tanker's job is to help its receivers perform better, no matter what their task. The KC-135 can conduct more reconnaissance, the AWACS can control the area longer, and fighters can patrol the no-fly zone for longer periods using fewer aircraft because of the tanker contribution. When these receivers get their jobs done as planned, the 4408th is doing its job well.

The KC-135 has a tradition of consistent reliability in the Area of Responsibility (AOR). "When the Joint Task Force begins to plan a day's activities, they've already assumed that the tanker will be there," said Lt Col Dennis M. Kaan, commander of the 4408 ARS(P). "In their eyes, we're a constant, not a variable." But it takes a dynamic team to live up to that expectation, especially in the AOR. Like most deployed units, the 4408th has the same organizational setup as in the United States, but on a smaller scale. This requires everyone to work harder to get the mission accomplished.

The rubber hits the road with an operations staff that ensures everything runs smoothly on a day-to-day basis. They keep crewmembers updated on intelligence, safety, and technical information pertinent to AOR flying activities on a 24-hour schedule. In addition to planning many multi-ship redeployments for homebound aircraft, planners and schedulers design a mission package for each operational sortie flown. The staff also keeps crewmembers informed

on other issues in the AOR ranging from terrorist threat activity to intramural sports events. They do as much as possible to remove the distractions that keep crews from flying safely.

The maintenance personnel are perhaps most responsible for upholding the tankers' reputation. Maintaining aircraft that are fast approaching 40 years old is no easy task. The minimal facilities available in the AOR only make their work more challenging. Finding alternative sources for equipment and making the most of those resources are their specialty. "Our troops always seem to find a way to make it (the mission) happen despite the limited resources here," said 1st Lt Mark Janicki, 4408 ARS(P) maintenance officer. "They'll prepare an extra spare at a moment's notice anytime a sortie needs to get off the ground." Work goes on around the clock so a sudden surge of sorties doesn't overtask the squadron. Even if some of the jets experience problems, they can generate multiple sorties each day from a single aircraft.

Fighting complacency is a constant battle for the operators. In some respects, flying in the AOR is the easiest mission for the tanker. Each sortie follows similar navigational routes, proceeding to the same areas, with the same refueling routine. The only variables are the duration of the sortie and the type of receivers. But the AOR has more than its fair share of pitfalls waiting to trap the unwary crew.

In the summertime, the heat is the most obvious hazard and very often the first to be ignored. No one can do their job at all if they're in the hospital for severe dehydration or heat exhaustion. The constant sun can also take its toll on personnel in other ways. It's hard enough to concentrate on a job with a nasty sunburn, let alone with temporary eye damage caused by the glare

# RELIABILITY THE DESERT

of sunlight off the pavement. A situation like that is dangerous for anyone, but it could be disastrous for a flyer.

The summer heat affects the airframes just as much as it affects the people flying them. Cockpit temperatures can easily reach higher than 140 degrees F before 0900. "It gets so hot that a crew can cook a whole MRE on the tanker glareshield during a normal 30 minute preflight," said Capt Mark Welter, 4408 ARS(P) pilot. What the heat does to an MRE, it also does to sensitive electronics and avionics. In addition to popping circuit breakers and making the crew uncomfortable, the heat takes away some of the safety margin for normal flight operations. Pilots must closely monitor engine starts to prevent overheats. Sorties that require heavy fuel loads often put the aircraft at maximum takeoff weight. Any temperature rise forces the crew to re-evaluate takeoff capability. Some situations even require downloading fuel just to get off the ground. Even when the jet can get airborne, crews find themselves much closer to the departure end of the runway than they normally prefer.

Obstacles still abound even after the crew is safely airborne and the flight deck has cooled down. Most of these obstacles involve the taxing ATC environment. The language barrier is the problem easiest to recognize since most controllers speak heavily accented English as a second language. If the sortie goes as planned, there is no problem. But when something out of the ordinary happens, both parties can quickly become confused. A crew has to be persistent in getting answers to questions about unusual situations or clearances to avoid any conflict.

The same common sense rules apply when flying in Saudi airspace as when flying anywhere else overseas. Patience and

understanding are the most valued commodities. Lack of them usually buys the crew the infamous penalty vectors and/or a stony silence.

Cultural differences present a different type of problem. The role of women in the Islamic culture is considerably different than in the West. The concept of a female pilot is something totally alien to them. Therefore, when speaking on the radios, a female crewmember should be aware of Saudi sensibilities. Depending on the situation, they may be treated differently. One copilot has adapted well to speaking with the controllers. "They are just like anyone else," she said, "if you speak nicely to them, they are much more receptive than if you act like you have a chip on your shoulder."

These problems emphasize the need for crews to be especially vigilant in the AOR. That vigilance extends into the air refueling area as well. AWACS and GCI do an admirable job of controlling the airspace, but even they can get task saturated. Aircraft are constantly entering and exiting the area at different points, altitudes, and times. In addition, an airliner will occasionally shoot through the MOA unannounced. The tanker is ill-equipped to detect other aircraft, so the main method of deconfliction is good situational awareness, listening for other aircraft on the radios, and a constant visual scan out the window. If anything doesn't look or sound right, a crew can't assume it's been deconflicted. They have to query the controller—for their own good.

The 4408th ARS takes great pride in its contributions to Operation Southern Watch. They are also very proud to accomplish this mission safely. "Safety has to be our number one concern — in flight operations and in our daily lives," said Lt Col Kaan. "Without it, we wouldn't be able to do the job day in and day out." ■



**Col Allen G. Craton**  
**USCENTAF Chief of Safety**  
**Shaw AFB SC**

# SAFETY <sup>in the</sup> DESERT

**A**s USCENTAF Chief of Safety, I couldn't be prouder of the extreme safety awareness that each deploying unit brings to the Southwest Asia AOR. Their safety record during the incredibly fast paced environment of Desert Shield, Desert Storm, Southern Watch, and Vigilant Warrior has been outstanding. I firmly believe it's a direct result of their bringing with them a focused, disciplined approach to accomplishing the mission, one that's made safety part of the mission. They've trained for this kind of tasking, they're ready, and their execution has been superb. The fact that our people take the high standards that they maintain at home and export them over to those less than perfect conditions and sustain them with enthusiasm, commitment, and dedication, is something that makes our Air Force unique. It certainly pays huge dividends.

While I'm proud of the way we've done business in the past, I do have some concerns that need to be understood by all who deploy to our AOR. Our ability to maintain full combat capability is only achieved by ensuring the safety of our people and the protection of our limited assets. When we deploy forward, under fairly austere conditions, there is an inherent increase in risk. At every level we try to do all we can to minimize those risks. Many of the hazards encountered in the AOR involve rapidly changing situations and compressed working environments that many of our people have never been exposed to. Everyone has been taught basic safety principles, and it's critical that they are not compromised when we deploy.

One of the major problems we encounter in the AOR is what we call the "TDY syndrome." Everyone is there TDY for 90 days and tries hard to make things work and get the job done. Sometimes there is a natural temptation to take short-cuts. The fact is, we cannot afford to take these shortcuts, especially when we are operating in an unfamiliar environment. We must continually stress that the only acceptable reason to deviate from normal safety practices is when there is no other way, and then only when supervisors and commanders are involved in a risk management process. Once these deviations occur, we cannot let them become "ops normal." Approved deviations are





only temporary. As soon as the requirement to deviate no longer exists, commanders and supervisors must ensure normal practices are reinstated. Simply put, it's all about people using their heads, thinking things through, and doing the right thing. So far, our front line people have been very successful at identifying those hazardous operations.

With our successes come continuing challenges for each safety discipline. As we maintain our presence in the AOR, many units have rotated there so often that the environment and tempo may seem routine. At first, a unit or individual is very sensitive to the difficulties and, consequently, maintains superb focus and discipline. However, after a few rotations, there is a tendency to become less sensitive to the operating environment and it's easy to let the guard down and succumb to complacency, poor judgment, and stress.

Our challenges for Flight Safety are continuation training and a long logistics trail. Since Desert Storm, the coalition has flown nearly 100,000 sorties. During this entire time there has only been one Class A flight mishap, and it was caused by a rare F-15 dual hard-over rudder. All of our deployed units have trained the way they intend to fight; and when you execute according to plan, you minimize losses. Our people have risen to the challenge; and due to their constant diligence, we have accumulated this extraordinary safety record. However, due to the tasking our deployed forces are faced with, we have limited opportunities to fly continuation training sorties. As a result, aircrews can regress in some proficiency areas because they don't have a chance to practice. Each unit needs to realize that fact and generate a spin-up program when they get back to home station. On the maintenance side, we are sometimes faced with a shortage of parts due to the logistical difficulties of distance, delayed diplomatic clearances, etc. When this occurs, we can experience the obviously increased turmoil of higher CANN and lower MC rates.

Weapons Safety challenges involve the safe

and expeditious beddown of incoming forces during build-ups like Vigilant Warrior. This is especially crucial when trying to smartly fit a large number of aircraft and weapons into limited space. The same deadly weapons that we are using day-to-day to deter Iraqi aggression can wreak havoc on our ramps if we don't pay attention to Explosive Safety Standards. Quantity Distance (QD) rules are constantly being worked to prevent an accidental explosion from one location detonating other explosions or destroying valuable resources. There are some situations that have developed in the AOR where we just don't have the room to meet all QD requirements. When this happens, these exceptions must be raised to wing commander level, and acceptable alternatives have to be found to minimize the risk. Then everyone exposed to this risk must understand the implications of QD violations.

For Ground Safety, just like stateside, the number one killer in the AOR is traffic related. Driving in Saudi Arabia is, without a doubt, one of the most challenging activities in the AOR. We have lost 8 valuable Air Force professionals to traffic mishaps since Aug 90. We have also been involved in 4, non-DoD, traffic related fatalities. Defensive driving is an absolute necessity. Since cultural differences exist regarding the expected handling of unusual traffic situations and conditions, our drivers must learn to anticipate the unexpected. For those of you that may be tasked to support future operations in the AOR, I strongly recommend you perfect your defensive driving techniques and never let down your guard.

In general, we've been very effective in making safety awareness and practices an integral part of USCENTAF's demanding and dangerous mission. It goes without saying that by successfully protecting our people and equipment, we maximize our warfighting capabilities. ■

# IN THE ARENA

**Brigadier General Terryl J. Schwalier**  
**Commander**  
**4404 Wing (Provisional)**  
**Dhahran**

*in the arena challenge & Opportunity*

**M**ore than 5 years have passed since coalition forces decisively defeated Saddam on the battlefield and sent him running back into Iraq. Since that time — and still as a coalition effort — forces have remained in Southwest Asia to enforce the conflict's termination agreements and UN sanctions. The responsibility for directing the southern half of that effort, "Operation Southern Watch," (OSW) currently belongs to the commander of the Joint Task Force-Southwest Asia (JTF-SWA). The USAF's contribution to OSW, and to JTF-SWA, is the 4404th Wing (Provisional), headquartered in Dhahran, Saudi Arabia.

The wing's flag was first unfurled in March 1991 at Al Kharij, Saudi Arabia, shortly after the 4th Fighter Wing returned home. Initially, the wing was made up of 5 types of aircraft charged with patrolling Iraqi airspace and enforcing the terms of the cease fire agreements. In July 1991 the wing moved to Dhahran. In the 5 years since its birth, the 4404th has been a key player in a continuing



# CHALLENGE & OPPORTUNITY

scenario of events throughout the CENTAF AOR... from downing Iraqi aircraft violating the no-fly zone... to attacking missile sites south of the 32d parallel that were tracking coalition aircraft... to being involved in noncombatant evacuation efforts... to receiving and bedding down forces during Vigilant Warrior. In those 5 years, the wing has grown to 11 sites in 4 countries. At this writing, we're flying 14 types of aircraft and have about 5,000 Air Force professional men and women assigned. The great majority wear the 4404th patch for 90 days and come to the AOR from bases all over the world. In addition to our flying operations, we run a Ground Tactical Air Control System (GTACS) with its associated radar, and maintain a 1,900 square acre War Reserve Material munitions and vehicle storage area.

Conditions at the wing's locations vary significantly — from tents and clamshells... to trailers, hangars, and "quite adequate" hotels. At 2 of our locations, we drive 45 minutes through some "fairly exciting" traffic to get to work. At others, we are close enough to walk. Temperature varies from a cool 50 degrees in the winter to 120 plus on the ramp in the summer.

Through it all, and with this collection of Air Force assets, the 4404th flies combat and combat support missions 7 days a week, 365 days a year.

If the sight picture you have now of the 4404th Wing (Provisional) is titled **"In the arena,"** you are exactly on target. The challenges are many... and the opportunities are great.

#### **CHALLENGE**

The first challenge for our units and people coming to the 4404th is to be prepared

on arrival. While 90 days will teach them many things, formal training is not in the wing's charter — or manning. We need new arrivals to be "full up" when they step off the rotator... supervisors who have learned as much as they can about the AOR and thought through the problems they might face... and individuals who are "qualified" and "capable" in their assigned area of expertise. Being able to conduct the 4404th's mission safely begins with people being ready and able to do the job they've been sent to do... be it flying airplanes... or building up munitions... or driving a humvee. In few words, "this is the varsity match." Our 5-year 4404th history shows how "ready and able players" have successfully dealt with an adversary who has continuously tested the limits. We have a powerful legacy to continue.

The second challenge begins immediately on arrival. Stepping into



100 plus weather for 6 months of the year... working out of a clamshell or a GPS... living in a tent. Working in a culture that is significantly different from ours... being in an area of heightened terrorist activity... being involved with an organization whose ops tempo seems to never let up. All require a bit of what my son once referred to as an "attitude adjustment" to give your best — and get the same from your time spent with the 4404th. An "attitude adjustment" that requires higher day-to-day vigilance both on and off the job. An "attitude adjustment" that requires special consideration for "those that follow" (which could be you again in a year or so). We challenge new arrivals to "leave their work places — and themselves — better than when they came." You only have to look around at the improvements made from rotation to rotation to sense the pride of personal goals accomplished while here... to know the great majority of "graduating" 4404th members have taken on the "attitude adjustment" challenge — and succeeded.

The third challenge hits once the "newness" of being in this part of the world — and its pace — wears off. Some refer to that next phase as the "ground hog days." Of all the challenges, this may be the most serious. When the "newness" of building and moving live munitions, or flying with live weapons, or driving to and from work through a "high threat" traffic environment wears off — 3 sure things remain. We're still building and moving live munitions, and flying with live weapons, and driving to and from work through a "high threat" traffic environment. If the "newness" wears off and takes with it even a small amount of alertness, chances for a serious accident increase tremendously. This challenge, "avoiding complacency," requires your best leadership — and self discipline.

### **OPPORTUNITY**

Challenges aren't the only thing facing new members of the 4404th. The AOR is an "opportunity rich" environment also. While we may not be structured for formal training, training opportunities abound. Within the wing you can find expertise on just about every aspect of the application of airpower. If you are a wing F-16CJ pilot,

you can crosstalk with the wing's rivet joint aircrews. If you are a wing F-15C pilot, you can see what goes on inside an AWACS by flying an OSW mission on board one of the wing's E-3s. If you are a wing A-10 pilot, you can "walk the ground" with one of the wing's FACs supporting the Army... or monitor a scope with a GTACS controller charged with getting you to and from your target area. Add lessons to be learned from our sister services — and nearby coalition partners — to those from "putting it all together" at Joint Task Force headquarters in Riyadh and you have a great opportunity to learn about airpower and its employment. In all, a truly unique training ground — yours for the learning.

Another opportunity readily available at the 4404th is the chance to test — and improve — your leadership skills. A significant percentage of our people here are supervising a section... or a flight... or shift for the very first time. Some of our squadron commanders are getting their first opportunity to command. I've heard previous commanders describe the 4404th as a great leadership laboratory — and couldn't agree more. The lessons learned — and confidence gained — by NCOs and officers filling their particular leadership position for the very first time will make our Air Force even better.

Perhaps the opportunity that I hear the most about is doing what you've been trained to do. From supporting and flying aircraft ready to employ live munitions... to building up and maintaining air base defenses to protect against a terrorist attack... to working out of and improving bare base facilities — time spent with the 4404th will give you a chance to do what you've been trained to do... and a little more.

To the thousands of Air Force professionals who have been "in the arena" with the 4404th Wing (Provisional) in Southwest Asia through 20 "rotations" over the past years, this article salutes you. Your legacy is a proud one — something those of us currently holding the wing's flag work hard to continue. To those soon to join the 4404th, get ready. Both challenge and opportunity await! ■

**MSgt Steven P. Pena Sr.**  
**Superintendent ACC Safety Training**  
**436th Training Squadron**

**I** was one of those Safety guys brought into the country after everything was up and running. I arrived at one of the forward operating locations at King Khalid Military City (KKMC); after the air war was in full swing. I was sent to the AOR by U.S. Central Command Air Forces (USCENTAF) to ensure that all munitions and explosives operations were correctly set up and met standards.

As I went about my business, I witnessed several areas of concern. Now, I had to figure out how to institute changes without becoming a hindrance to the mission. At KKMC, there was an F-16 parking/loading ramp with 8 turn spots, turning 4 MK-84's per aircraft on a very small ramp. There were munitions trailers with "next go" loads sitting on the back of the ramp. These loads exceeded the standards for Net Explosives Weight and proper quantity distance. I also noticed some undiked, large fuel bladders close to the loading operations. I felt if one were to burst, the aircraft and personnel would have been covered with jet fuel.

Additionally, I noticed some Saudi facilities dangerously close to ongoing explosive operations. I wondered if the Saudi's had been briefed on the existing ramp dangers? Another problem I detected was that Security Police patrols were frequenting dining facilities and base exchange facilities while wearing 40 mm High Explosive rounds attached to their vests. I don't blame the Security Police. In the heat of the battle we tend to stretch the rules in order to do the best job we can do, no matter what that job entails.

So how does a Safety guy who comes into an operation after everything is up and running tell someone you can't do that? You don't! You tell them there are better ways to do it. If I had tried to tell folks what they couldn't do, I would have been on the next smoker out to who knows where. Instead, I decided to tell the senior leadership some ways to do things better with slightly less risk to everyone involved.

First things first. The problem I wanted to work first was the excessive amount of munitions on the ramp. So, I talked to the munitions flight chief and asked if we couldn't hold back the next aircraft munitions load, until the loaded aircraft had taxied for take-off, thereby cutting the munitions load on the

ramp in half.

The next issue was the fuel bladders. They were very close to the operations, which could have been a real problem in itself; however, these bladders, as I said earlier, were not diked. If they were diked, the dikes would at least contain the fuel if one or more of them burst. Again, I went to the senior leadership and told them that for the safety of operations and personnel (sometimes you also need to become a diplomat), we should put priority on getting dikes built around the fuel bladders. Shortly thereafter, the civil engineers were out with front end loaders and bulldozers building dikes.

Next stop, the Security Police. Once again, I went to the senior leadership of the Security Police and told them there was a better and safer way for them to operate. So between the cops and myself, we decided that when the patrols were in public areas such as dining facilities or the base exchange, they would relinquish their field munitions to another patrol until they departed the public areas. Now, we could avoid breaking the Golden Rule of Explosives Safety: exposing the minimum number of personnel to the minimum amount of explosives for the minimum amount of time.

We were very good during Desert Shield and Desert Storm — and we got better. We had millions of pounds of munitions/explosives brought into the country and slammed together in very limited space. Despite this, we didn't have any major accidents. However, there were some minor incidents which I attribute to the poor layout of the explosive operations. The expertise that a weapons safety manager could have provided USCENTAF weapons managers was not always evident at the sites. It is our job to ensure the commanders making the decisions are well informed of the risks involved, not only with war time operations, but in everyday operations on their installations.

These were just a few of the problems encountered during Desert Storm. These problems can occur in everyday operations throughout the Air Force, but we have experts at every installation to reduce or mitigate the risks or hazards. I was very fortunate we had good, hard-working people and senior leadership willing to listen, even in the heat of a "real" battle. This story could have been entirely different had they not listened. ■

# FLIGHT SAFETY AWARD OF THE QUARTER

Capt Robert H. Russell  
28 BW  
Ellsworth AFB SD



# GROUND SAFETY AWARD OF THE QUARTER

TSgt Graylan W. Hodge  
28 MS, 28 BW  
Ellsworth AFB SD



# WEAPONS SAFETY AWARD OF THE QUARTER

TSgt Barry C. Morris  
55 WG  
Offutt AFB NE

