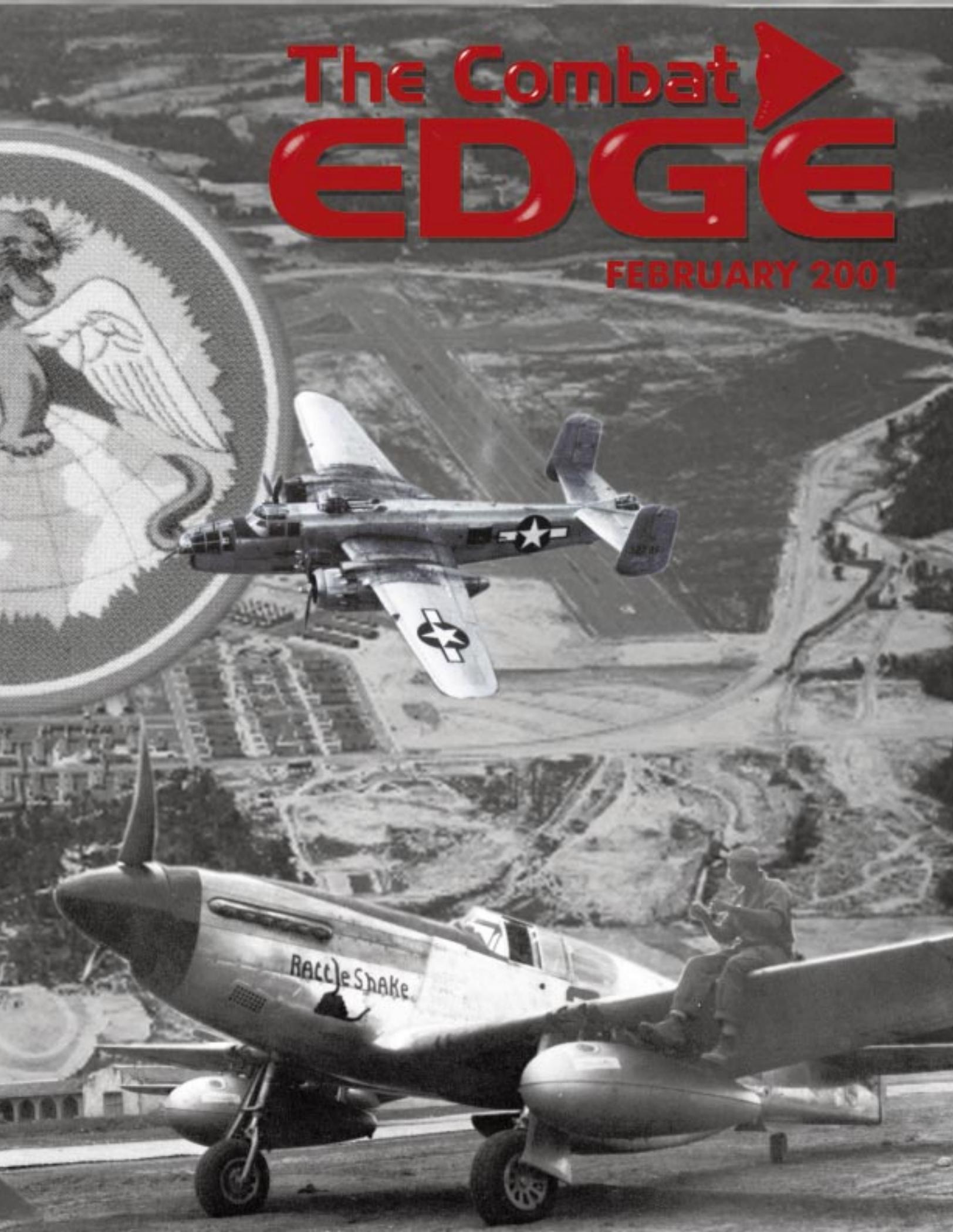


The Combat EDGE

FEBRUARY 2001



The Combat EDGE

Volume 9 Issue 9
February 2001
ACC SP 91-1

Air Combat Command's Mishap Prevention Magazine

GENERAL JOHN P. JUMPER, *COMMANDER*

COL. GREGORY A. ALSTON, *CHIEF OF SAFETY*



The Tuskegee Experience 5

A Tuskegee Airman Speaks... 8

Combat Records For Tuskegee Airmen 10

12th Air Force Safety Programs 11

How Eagles Soar In The Winter 12

Ground Safety Attacks 14

Passing The Pen 22

History Doesn't Have To Repeat Itself 24

Flight Safety Parables 26

Safety Mindset 28

Departments

Awards..... 18

Safety Stats..... 23

Fleagle..... 31

This issue highlights historical programs and events that show how far Air Force safety programs have come. The staff of *The Combat Edge* salutes these veterans and their contributions to the Air Force we all serve in today.

MAJ. DANIELLE COLEMAN
EDITOR

BARBARA TAYLOR
ASSOCIATE EDITOR

MASTER SGT. HENRY BLANCHARD
&
STAFF SGT. NEIL ARMSTRONG
DESIGN & LAYOUT

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

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

DISTRIBUTION: F. OPR: HQ ACC/SEM. Distribution is based on a ratio of one copy per 10 persons assigned. Air Force units should contact *The Combat Edge* staff to establish or change requirements. Other Department of Defense (DoD) units have no fixed ratio and should submit their requests to the OPR.

ANNUAL SUBSCRIPTIONS: Available to non-DoD readers for \$47.00 (\$58.75 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/SEM.

CONTRIBUTIONS: Please send articles, with name, rank, DSN phone number, and complete mailing address, and comments to:

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

Telephone: (757) 764-8808
DSN 574-8808
FAX: (757) 764-8975
e-mail: danielle.coleman@langley.af.mil

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

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

 Denotes images digitally manipulated.



HOW DO YOU SPELL SAFETY?

S-a-f-e-t-y. Of course, we all know this is how it is spelled in the literal sense, but the title was selected to emphasize a point. Safety comes in many forms and in every case it is proactive. Safety is deliberate and must take place before a mishap. Once a mishap occurs, it is too late. We failed. Safety was not present to prevent the mishap or any resulting injury and the opportunity to be proactive was missed. S-e-a-t b-e-l-t is the way I will spell safety to illustrate my point.

I recently attended a Joint Service Safety Chiefs' conference. At this conference the chiefs of safety for the Air Force, Navy, Army and Marines discussed their major safety areas. I was disturbed by the explanations of fatalities in each service. Servicemen and women are being killed by not taking simple steps to prevent mishaps or the injuries they might sustain should a mishap occur. I saw pain in the eyes of the various two-stars as they told us of fatalities that occurred because seat belts were not used. We all know to use seat belts, yet approximately 50 young U.S. military men and women were killed because they did not buckle up. One of the services announced their goal to reduce fatalities by 25 percent without any increase in funding. They then pointed out the obvious. If their people simply wore seat belts, their fatalities would be reduced by 25 percent and they could achieve their goal.

I would like to take seat belt use a step further. Buckling a seat belt is the most basic of steps we can take to prevent injury. Everyone has been taught about the horrible results that might occur if we do not buckle up. The entire nation knows the benefits of using seat belts. My point is this: If a person does not perform the most basic step of buckling a seat belt, then what will motivate them to use the more advanced safety measures such as life vests, elbow pads, helmets, goggles and so forth? To properly integrate safety into our lives, people must start with the basics, and seat belt use is the most basic of safety steps. I predict that if everyone across the DoD would use their seat belts — 100 percent — we would save more than 50 lives and surpass the goal of reducing fatalities by 25 percent. If people become conscientious enough to fasten a seat belt, it will become more natural for them to use the more advanced safety measures, which, in turn, will result in even fewer fatalities military-wide.

As you will read in our feature articles, the military has come a long way on the safety front. It is progress we are all happy to see; however, we have a little bit farther to go and seat belt use is one of the basic safety fundamentals that will get us there.

Col. Greg "Vader" Alston
ACC Chief of Safety



The Tuskegee Experience

*By Maj. William G. Mills
Bomber Basing Plans Branch Chief and
President of the Tidewater Chapter of Tuskegee Airmen
Langley AFB, Va.*

Our country's heritage includes the contributions of more than 13,000 African-Americans who have come to be known as the Tuskegee Airmen. During World War II, 450 combat single-engine fighter pilots, 223 non-combat single-engine fighter pilots, 263 non-combat B-25 bomber pilots and more than 12,500 other Tuskegee Airmen served America stateside and in the Mediterranean and European theaters of operations. Here is a brief synopsis of how this period of history came to be and who was involved, along with some safety insights from some of the original Tuskegee Airmen.

In 1939, mobilization pressures on the Roosevelt administration and Congress led to the passage of Public Law 18, then the Civilian Pilot Training Act. This Act, sponsored by the Civil Aeronautics Authority, established the Civilian Pilot Training Program (CPTP), which created a reserve of civilian pilots to be called in the event of a war emergency. It was out of this program that six segregated CPTP centers were established at African-American colleges in the south. The focal point of this part of the program became Tuskegee, Alabama, where pilot training centers were created at Moton Field and Tuskegee Army Airfield (TAAF). Because of this, the term "The Tuskegee Experiment" was adopted and characterized the period of 1939 - 1949.

Forty-four classes were conducted in Tuskegee from 1942 to 1946. Each one averaged about 21 students per class. It took 36 weeks of training to make the transition from aviation cadet to certified military pilot. In basic flying training, aviation cadets flew the BT-13. In advanced flying training, fighter cadets flew the AT-6 and bomber cadets flew the AT-10. Historically, the graduates of this program have been referred to as Tuskegee Airmen.

During the early years, the TAAF commander, the director of the Tuskegee Army Flying School, all flight instructor billets and key TAAF positions were voluntarily staffed by white officers. This began to change under the command of Col. Noel F. Parrish who served as the third and last commander of TAAF from 1942 to 1946. Under Col.

Parrish, the Tuskegee Airmen who returned from combat were placed in basic, advanced and combat instructor positions. All the non-flying personnel who needed the ground, technical and administrative skills required to operate an Army Air Corps Field were trained at Army posts, Army Air Corps bases, civilian facilities or educational institutions throughout the United States.

After the CPTP had been established, but before the first class had started, these airmen made history when Eleanor Roosevelt took a flight with Charles A. "Chief" Anderson who was the chief pilot at Tuskegee. Lt. Gen. Benjamin O. Davis, Jr., USAF (Retired), who was the first African-American promoted to the rank of brigadier general, graduated from the very first class, 42-C, on March 1, 1942. Lt. Gen. Davis went on to command the all-African-American 99th Fighter Squadron (FS) and the 332nd Fighter Group (FG) overseas. In June and July 1945, then-Col. Davis and his selected staff from the 332 FG accepted command of the 477th Composite Group (CG), the Army Air Corps' only composite fighter-bomber group. It included the 99 FS, which flew P-47Ds, and two consolidated bomber squadrons, the 617th at Godman Field, Fort Knox, Kentucky, and the 618th at Atterbury Field, Columbus, Indiana. Both of these bomber squadrons flew B-25Js. Lt. Gen. Davis returned to the Tuskegee Institute after retirement to teach military science.

Gen. Daniel "Chappie" James, Jr., USAF (Retired), who was America's first African-American four-star general, graduated from class 43-G. In 1945, he served stateside under then-Col. Davis as a twin-engine B-25 bomber pilot in the 447 CG. In 1947, he served under then-Col. Davis as a single-engine P-47 fighter pilot in the 332 FG. Four hundred and fifty combat pilots from Tuskegee flew P-40s, P-39s, P-47s and P-51s in the aerial war over North Africa, Sicily and Europe under the command of then-Col. Davis. When the first Tuskegee Airmen were sent overseas, they were not replaced at the end of the usual tour of duty so many of them ended up flying more than the normal 50-mission tour before returning stateside. These gallant men flew 15,553 sorties and

completed 1,578 missions with the 12th Tactical U.S. Army Air Force and the 15th Strategic U.S. Army Air Force.

The Army Chief of Staff, Gen. Marshall, had the Army Division of Operations (G-3) conduct an eight-month study starting in July 1943, after receiving some complaints about the 99th Fighter Squadron's performance in the Mediterranean and subsequent recommendations that they be removed from the theater. The G-3 report stated, "An examination of the record of the 99th reveals no significant general difference between this squadron and the balance of the P-40 squadrons in the Mediterranean Theater of Operations." Official records show that the 99 FS and 332 FG continued to perform admirably until their deactivation in July 1949 and October 1945, respectively. The number of unit citations they received for both the pilots and their service and support units reinforced this record. Of the 450 overseas pilots, approximately 150 received the Distinguished Flying Cross.

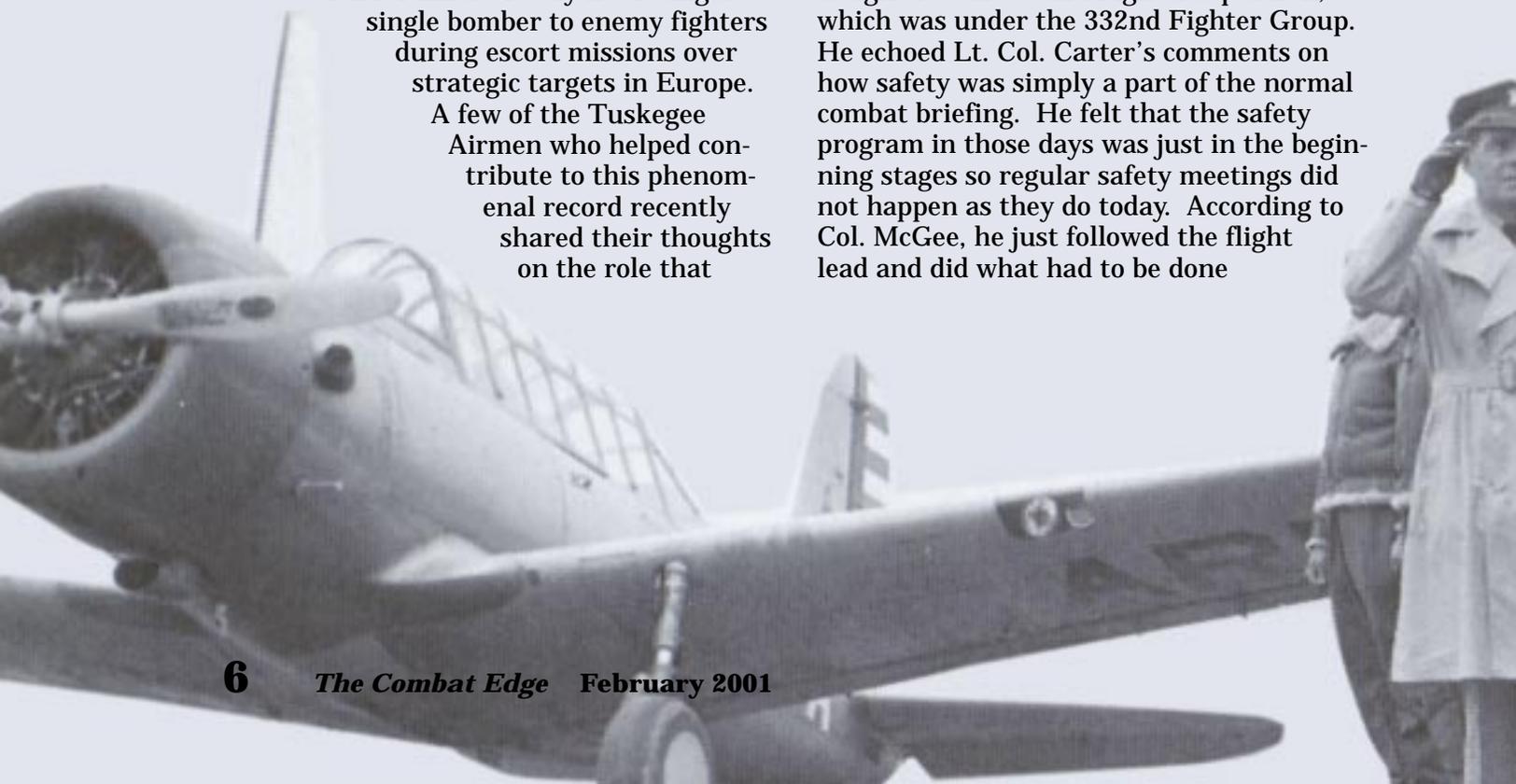
Their success contributed to the reputation they earned among their opponents and fellow servicemen. The Germans, who both feared and respected them, called them the "Schwarze Vogelmenschen" (Black Birdmen). White American bomber crews reverently referred to them as "The Redtail Angels" because of the identifying red paint on their tail assemblies and their reputation for miraculously not losing a single bomber to enemy fighters during escort missions over strategic targets in Europe.

A few of the Tuskegee Airmen who helped contribute to this phenomenal record recently shared their thoughts on the role that

safety played in achieving this record.

Lt. Col. Gene Carter, USAF (Retired), was a fighter pilot and squadron maintenance officer with the 99th Fighter Squadron. According to Lt. Col. Carter, each pilot was assigned to a particular aircraft, which was owned by a crew chief so both the pilots and maintenance personnel took personal pride in their aircraft and its performance in combat. A mission abort was a serious issue and considered unacceptable. As a maintenance officer and pilot, Lt. Col. Carter tried to minimize these by flight-testing all aircraft problems before returning the aircraft to service. He also related that there were no formal safety meetings like the Air Force has today. Flight safety was stressed as a part of the formation briefing. Great emphasis was placed on avoiding mid-air collisions and pre-planned reactions if enemy aircraft like the ME-109 jumped the formation. Air discipline was essential in combat operations. Formation integrity was more important than the number of kills achieved and this was the responsibility of the formation leaders. They had to decide how to rejoin the formation, which was the most critical portion of the flight, and get the formation through the cloud decks and safely on the ground.

Col. Charles McGee, USAF (Retired), was also a pilot and is currently the National President of Tuskegee Airmen, Inc. He was assigned to the 302nd Fighter Squadron, which was under the 332nd Fighter Group. He echoed Lt. Col. Carter's comments on how safety was simply a part of the normal combat briefing. He felt that the safety program in those days was just in the beginning stages so regular safety meetings did not happen as they do today. According to Col. McGee, he just followed the flight lead and did what had to be done



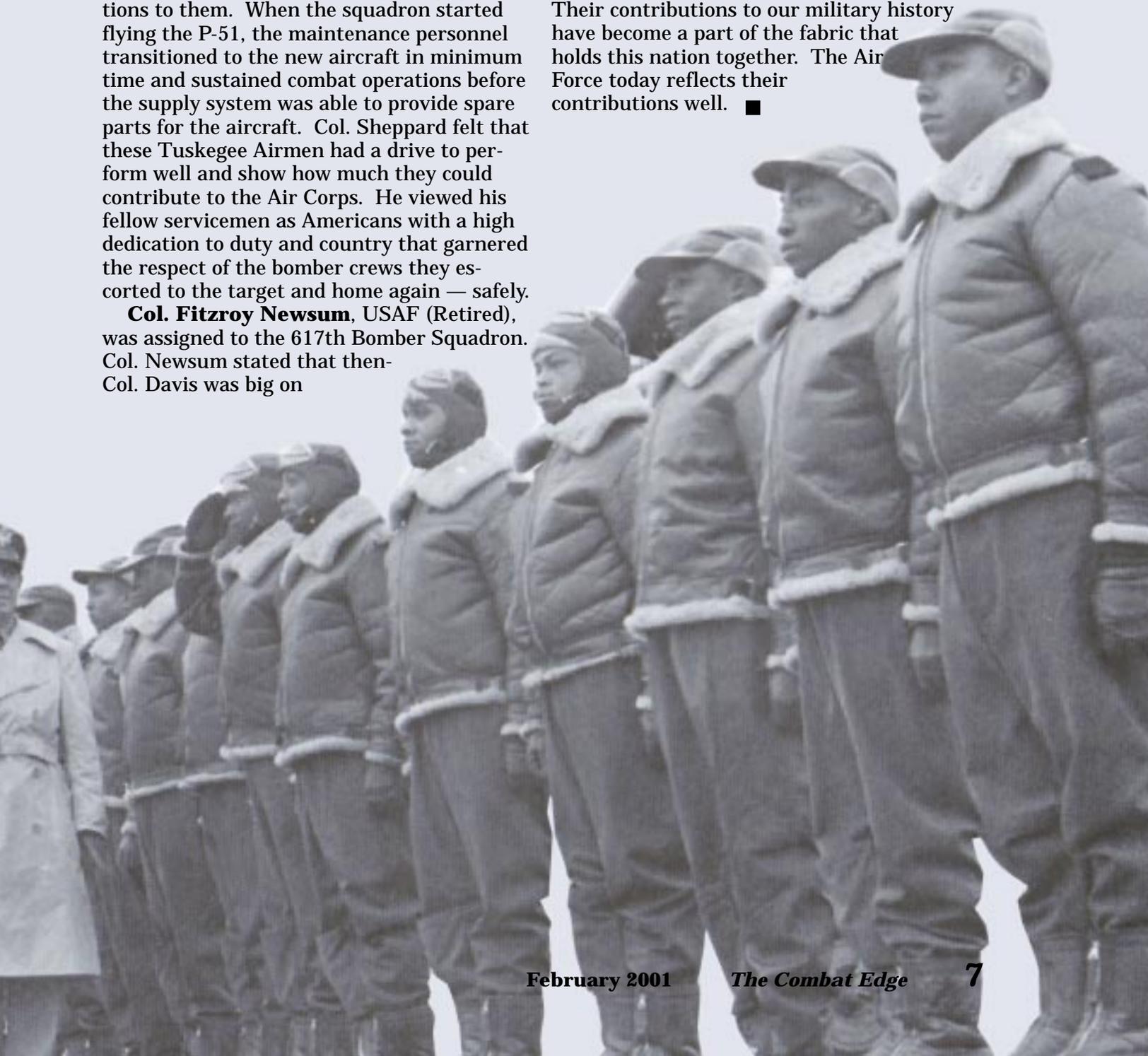
to accomplish the mission. The pilots made sure their life support gear checked out correctly before takeoff. Just like today, an emergency at high altitude was not the time to find out their oxygen masks were malfunctioning. While there was pilot fatigue at the end of the missions, this was normal and did not prevent safety from being adhered to in all ground and flight operations.

Col. Harry Sheppard, USAF (Retired), was a fighter pilot and maintenance officer in the 302nd Fighter Squadron. He had high praises for the maintenance personnel and contributed the success of the flying operations to them. When the squadron started flying the P-51, the maintenance personnel transitioned to the new aircraft in minimum time and sustained combat operations before the supply system was able to provide spare parts for the aircraft. Col. Sheppard felt that these Tuskegee Airmen had a drive to perform well and show how much they could contribute to the Air Corps. He viewed his fellow servicemen as Americans with a high dedication to duty and country that garnered the respect of the bomber crews they escorted to the target and home again — safely.

Col. Fitzroy Newsum, USAF (Retired), was assigned to the 617th Bomber Squadron. Col. Newsum stated that then-Col. Davis was big on

safety and let everyone know that it was his personal priority. The directive to maintain good air discipline came right from the top. Col. Newsum related that if a pilot was caught flying too low during a dive-bombing run, that pilot would probably have a face-to-face with the colonel. That is how serious a breach of air discipline was considered. Then-Col. Davis was concerned that too many of these breaches would jeopardize the Tuskegee program.

The Tuskegee Airmen were pioneers that had the dedication and love of country to overcome obstacles and make a difference. Their contributions to our military history have become a part of the fabric that holds this nation together. The Air Force today reflects their contributions well. ■



A Tuskegee Airman Speaks Out on Safety - Then and Now

By Maj. Danielle L. Coleman, Editor, *The Combat Edge*
Langley AFB, Va.

One of the more than 13,000 original Tuskegee Airmen retired on Dec. 15, 2000, from the 377th Air Base Wing Weapons Safety Division at Kirtland AFB, N.M. Before retiring, Mr. John E. Allen sat down with Chief Master Sergeant Sadie Stewart from the Air Force Safety Center to share some of the safety wisdom he has gathered during his 55 years of military and civil service.

Mr. Allen joined the Army in 1945. He was placed in the Army Air Corps because he scored a 97 on the entrance exam and became part of "The Tuskegee Experiment" in Alabama. Following this training, he joined the 332nd Fighter Group as a pilot. In 1947, when the military began to draw down from its former wartime strength, it started disbanding the Tuskegee Airmen. Mr. Allen took that opportunity to separate. The following year he re-enlisted in the military and was assigned to the Strategic Air Command where he spent most of the remainder of his 27 years of active duty working in maintenance and weapons. Mr. Allen joined the military after World War II ended so he missed flying in combat; however, he benefited from being taught by those who had. He also gained invaluable weapons experience while serving during conflicts in Korea, North Africa and Vietnam.

While Mr. Allen did not have specific information on the safety record of the Tuskegee Airmen, he had some interesting insights on how the military handled safety at that time. He mentioned that when the Tuskegee Airmen first started, they had to develop their own internal organization, which became easier as their own flight leaders got trained. As they gained more combat experienced people, the safety awareness of all the people increased. He did feel that safety was a lower priority during wartime because everything was geared toward accomplishing the mission. "If an aircraft broke, it wasn't a matter of going through all the safety steps. If you were out revving up for a mission and you realized you had a flat tire, the job was

to get that tire changed ASAP. If you were working with ordnance and they made a check and found something was wrong with a gun, the objective was to get it fixed...Do it safe, but by the same token don't take a lot of time for it in that particular area. The emphasis on safety was much higher during peacetime because we had time. There was no one standing over our shoulder telling us to get to this aircraft and make the mission cut...We were able to do things a lot better and take our time. Even though safety was not briefed, we had more time and, if you have more time, you can look and see things around you."

While safety might not have been as prominent as it is in today's Air Force, Mr. Allen did remember some of the sayings that were used during the early days. His favorite safety saying from his munitions days was "never stick your head in a lion's mouth because sometimes lions bite." The most famous saying in explosive ordnance disposal (EOD) was of course, "when in doubt, always cut the red wire." He did emphasize that they all "had a good understanding of Murphy's Law" and how it could impact their lives. Also, during his Tuskegee Airmen days, he remembered having post-flight get-togethers to discuss things that had happened during a sortie and the lessons learned from them. He did feel that safety was stressed on the flying side of operations more than in other areas. In fact, he could not remember receiving a ground safety briefing either in the Army or the Air Corps during that early period of time.

Mr. Allen shared a couple of stories of when a safety briefing or two might have come in handy. One of these stories was about being told to drive a military vehicle for the first time. He had joined the service after leaving his family farm so he knew the fundamentals of driving from operating a tractor. However, the military just assumed he could drive and did not bother to check his skill level before putting him behind the wheel of a truck, on the side of a hill, and telling him to drive. In addition, there was no

briefing on what to do if the truck lost its brakes or any other contingency that might happen. When it came to leave or rest and relaxation tours, there was only a standard venereal disease briefing and a warning to not go out and get drunk. Major safety campaigns like the "101 Critical Days of Summer" one we have today did not exist back then.

Mr. Allen is very encouraged by all the safety consciousness that exists in today's military. "We give newcomers safety briefings. We give specific safety training to supervisors. We give motorcycle training to motorcycle riders. We go out and give '101 Days' briefings to everyone before the '101 Days' period starts. We give driver's training. We give operational risk management (ORM) training to everyone. We give flight safety to those who fly. We have a comparison to past years as far as safety is concerned and the comparison has been great. I've talked to a lot of people who've been around and have seen changes in the career field from the ground side of the house, to flight safety and weapons safety. There have been tremendous changes and I've been glad to see them."

His favorite change in the safety world was the implementation of ORM. He felt that applying the ORM process to each test ensured the safe operation of the control firing area at Kirtland AFB where he spent his last years of civil service. It is a requirement for each user of the facility. Great emphasis is placed on writing good safe test plans, good operational instructions and good checklists. He felt this is much more critical in a weapons environment than maybe on the flight line where a plane can still take off even though a minor problem is discovered that does not affect flight safety. "When you are working with ordnance, you can't afford to take that particular chance."

Because of what he has learned over the last 55 years, Mr. Allen does a sideline project where he talks with first term airmen. He stresses American military history and the role that the Tuskegee Airmen played in preserving the freedoms we now enjoy. He also shares a couple of nuggets of safety wisdom that can be applied to both operational and personal risk management in today's Air Force. This first one is to "be aware of your surroundings at all times." In his early days of flying, he was taught to project himself ahead in a situation, to visualize being 400 to 500 feet ahead of his aircraft. To do this,

he had to constantly know and think about what he would do if a particular thing happened. He summed it up by saying "always have your 'what if' already planned." He also stresses that every one needs to be conscious of safety. He enjoys using the example of an administrative clerk who gets a paper cut, which gets infected and could result in the amputation of an extremity. "I tell everybody, from the lowest to the highest, to be aware of any and all situations they're in as far as safety is concerned."

Mr. Allen has seen and experienced a lot over the last half century. He was part of the historic Tuskegee Airmen. He salvaged 24 MK-82s from a tarmac in Guam when a B-52, supporting Vietnam operations, jettisoned them from the wing pylons while on the ground. He lost his first EOD officer at Bien Hoa in Vietnam. Also while stationed on Guam, he helped to remove an armed 117 that had punctured the bomb bay door of a B-52 that had taxied into the hot area for reloading. This is just a snapshot of the role Mr. Allen has played in our nation's history, but he really likes to tell the story of the work he did on the B-52. He became involved with its predecessor, the XB-52, a test project at Fairchild AFB, Wash., three years before the B-52 came into the Air Force inventory. "When I look at the latest mission progress and note that the B-52 is going to fly until the year 2037, it's amazing. I'm always proud of that bird. I cut my eye-teeth on them and I can remember loading them back when we had to almost man-handle ordnance on them. I'm real proud to know that they've been around as long as I have and will be around a few years longer."

It is from this font of knowledge and wisdom that the following comes. "We have got to look at safety as not just another day on the job. We've got to look at it as being a lifeline - the thing that is going to put ordnance on the target safely and effectively. And the experience that I've had with safety over the years, I guess I must have done something right because I still have all my fingers. So, in closing, we have to encourage our youngsters to think safety no matter when or what they are doing. Be it cook, ditch digger, electrician, beauty technician, EOD technician or munitions loader, we have to ask them to look back at the accomplishment of the Tuskegee Airmen and take that as an example of what you can do with determination." ■

COMBAT RECORDS FOR TUSKEGEE AIRMEN

JUNE 9, 1945

Total Number of Pilots Graduated from Tuskegee	993
Total Number of Pilots Sent Overseas	450
12 AF Total Number of Missions	1,267
12 AF Total Number of Sorties	6,381
15 AF Total Number of Missions	311
15 AF Total Number of Sorties	9,152

TUSKEGEE AIRMEN BATTLE DAMAGE ASSESSMENT RECORD

	Destroyed	Damaged	Total
Aircraft (aerial)	111	25	136
Aircraft (ground)	150	123	273
Barges and Boats	16	24	40
Boxcars, Other Rolling Stock	58	561	619
Buildings & Factories	0	23	23
Gun Emplacements	3	0	3
Destroyers	1	0	1
Horse Drawn Vehicles	15	100	115
Motor Transports	6	81	87
Power Transformers	3	2	5
Locomotives	57	69	126
Radar Installations	1	8	9
Tanks on Flat Cars	0	7	7
Oil & Ammunition Dumps	2	0	2

TUSKEGEE AIRMEN COMBAT AWARDS

Legion of Merit	1
Silver Star	1
Soldier Medal	2
Purple Heart	8
Distinguished Flying Cross*	95
Bronze Star	14
Air Medals and Clusters	744

(* Total number of Distinguished Flying Crosses awarded to African-American pilots estimated at 150, according to Charles E. Francis, *The Tuskegee Airmen*, 1988)

By Col. Frederick H. Thompson
12 AF Chief of Safety, Davis-Monthan AFB, Ariz.

12th Air Force has a very active safety program focused on operational and personal risk management (ORM and PRM). We have four major programs designed to make sure our people are aware of the risks involved with their on- and off-duty activities and understand their responsibility to apply the appropriate risk mitigation measures. Ground safety is a primary focus. We use a three-pronged thrust targeted at areas where we have seen our most serious injuries and fatalities. The first prong is a “War on Driving Under the Influence (DUI).” The second is a seat belt utilization campaign. Thirdly, we have a quarterly push of information relevant to typical activities for each quarter—we call it our “Ground Safety Attack.” Other areas of primary focus are flight safety, weapons safety and PRM.

Until we began our “War on DUI,” we had no statistics to tell us how serious the drinking and driving problem was in 12 AF. We only counted the number of motor vehicle mishaps in which alcohol was a factor and, unfortunately, most of those mishaps involved a fatality. To resolve that, the judge advocate began gathering the numbers of DUIs reported in 12 AF. Our Safety office compiled statistics from those numbers and worked closely with unit commanders, supervisors, and safety offices to provide educational materials and other types of crosstell information.

Another trend we found when looking back at fatal traffic mishaps over the years was that far too many involve drivers or passengers not wearing seat belts or, in the case of motorcycles, not wearing a helmet. Though the protective equipment could not have saved a life in a few of those mishaps, there were no mishaps where the protective equipment caused fatal injuries. As a result, 12 AF unit commanders and supervisors are emphasizing regular seat belt checks on their bases. The checks are accomplished in unit parking lots and at the base gates, both inbound and, more importantly, outbound. In 12 AF, more than 117,000 seat belts were checked last fiscal year. Almost 97 percent of vehicle occupants were wearing their seat belts. Unfortunately, that means over 3,800 people were not buckled in. These rates indicate that on any given day 900 people in 12 AF are not properly

restrained and, by doing so, are accepting an unnecessary risk.

The third prong of our ground safety program is a quarterly “Ground Safety Attack” week where we focus on a specific safety area. Each quarter we push specific safety information timed to help our people prepare to handle upcoming environmental risks. In the fall, we focus on winter hazards. In the winter, we focus on vehicle safety. In the spring, before the start of the “101 Critical Days of Summer” campaign, we ask our folks to focus on outdoor recreational safety. We do this because people in many areas of the country are beginning summer activities before the start of the “101 Days” campaign. In the summer, we want to remind our folks to think about safety on the job.

Our second area of primary focus is the flight safety program where the key aspect is our “Flight Safety Parables.” The intent is for Operations Group commanders to pass “There I was”-type lessons learned from previous mishaps to aircrews at quarterly safety meetings. 12 AF picks topics based on relevant issues such as weather and nighttime operations; flight discipline and judgment; and deployment and deployed operations. The expectation is that if crews know where others got into trouble, they could avoid making the same or similar mistakes.

12th Air Force’s third area of primary focus is our weapons safety program. Our weapons safety experts are outstanding and they make sure our installations and personnel are applying the appropriate procedures day-to-day. As a result, our weapons mishaps are few and our exposure remains low. We remain vigilant in that area.

Finally, we continue to stress to our folks that they must employ PRM, both on and off duty. Commanders, supervisors, and safety personnel can fix hazards found on the job - that is part of our mission. It is the off-duty environments that challenge us. We can only point out the risks and make our people aware of ways to avoid those risks through training opportunities. Implementing control measures to mitigate these off-duty risks is sometimes outside of the Air Force’s scope. Instead, it is the individual who must do this. ■

12 AF SAFETY PROGRAMS



HOW EAGLES SOAR IN THE WINTER

*By Capt. Adrian Spain
27th Fighter Squadron Assistant Chief of Weapons
Langley AFB, Va.*



We have had a little bit of a break this year in that “the heavy stuff didn’t come down for quite some time.” This allowed us to get well into December without much trouble involving weather. However, complacency during this time of year leads to accidents and deaths so we have got to keep our guard up until the sun decides to come back out sometime in April or May. Anti-exposure suits (or poopy-suits), bad weather and single runway operations all require some unique planning considerations to ensure the Eagle Drivers in the 1st Fighter Wing operate safely.

The poopy-suit is the bane of existence for every cold weather, over-water flying, fighter pilot in the country. Nonetheless, we wear them because they will probably provide us with those precious few minutes needed to pull ourselves into our life raft should we have to eject into sub-50 degree water that is typical during these winter months. For those of us not busy ejecting (knock on wood), the poopy-suit takes some getting use to. It constricts at the neck and wrists, it restricts lateral movement, and it’s HOT! With that said, fatigue is a huge issue when wearing these suits. This is especially true on surge days where we typically fly two to three sorties before taking a break. Pilots need to not only gauge their jet’s performance, but also how their body feels to make sure they are not getting dehydrated prior to their next flight.

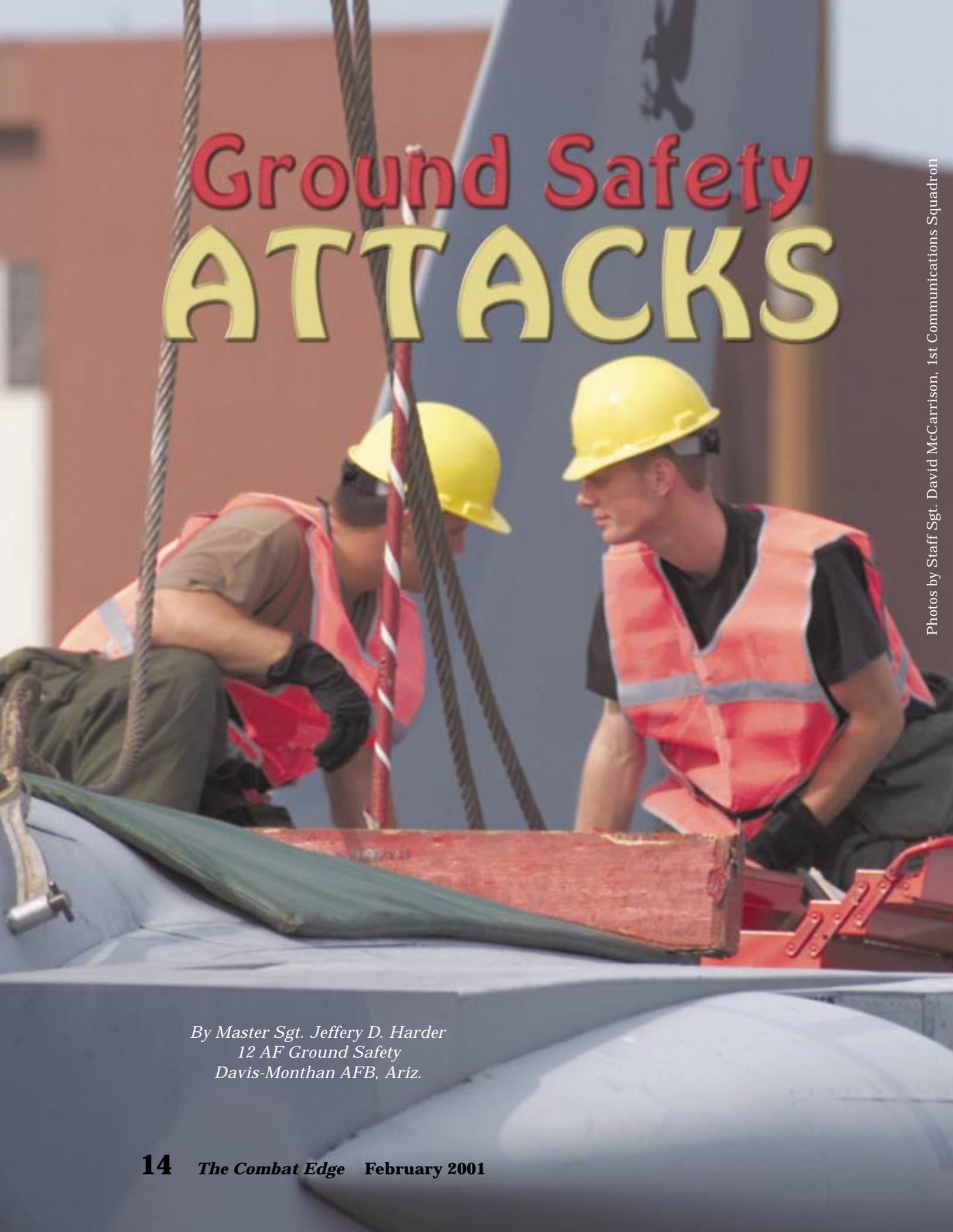
Bad weather is something that we have all dealt with at one time or another and it tends to pop up at the most inopportune times. The best way to combat the effects of unpredictable weather is to realize the mission is not finished until you are back in the squadron bar with a frosty beverage in hand. Until that happens, you must always be prepared to fly the approaches down to your minimums and understand what your available options are if forced to

divert to another airfield. Most of this is done in the pre-flight planning of each mission; however, weather around here is extremely unpredictable at times. It can go from clear to pea soup in a matter of minutes. Knowing the closest alternate bases and the fuel requirements for getting to them will pay dividends when sea fog or something else forces the supervisor of flying to close the field just as you are returning home.

Another problem we face at Langley during the winter is the flight level winds out of the west. They work great for us going to the airspace; but, when we want to come home and we are a little lower on gas than we would like to be, 110 knots of wind staring you in the face is not very comforting. A good technique to counter these conditions is to pad the in-flight guide fuels by 500 to 1,000 pounds. This will ensure everyone gets home safe and will definitely reduce the pucker factor.

Finally, another bonus of flying the world’s greatest air superiority fighter out of Langley AFB (the F-15C, of course) is that we operate from a single runway. This simply means that, at ANY time, someone returning to base could have an emergency and shut down the runway. This would make it unusable for an indeterminate amount of time. Knowing this makes it even more important to adhere to the planning considerations previously mentioned.

These issues are nothing new, but they are definitely worth a refresher every now and then. The pilots and leadership of Air Combat Command realize our business is to fly and fix jets so that we are prepared to go to war when that time comes. Let’s continue to fly tactically smart and administratively safe through these winter months so that we are all here to laugh in the general direction of our enemies when the warmer months arrive. ■

A photograph of two workers in safety gear (yellow hard hats and orange safety vests) working on a large metal structure. They are wearing black gloves and are focused on their task. The structure appears to be part of an aircraft or a large industrial component. The background is a blurred industrial setting.

Ground Safety ATTACKS

*By Master Sgt. Jeffery D. Harder
12 AF Ground Safety
Davis-Monthan AFB, Ariz.*

Like you, the personnel in 12th Air Force have been at war - a war against mishaps. Our battles have focused on nearly every aspect of daily life as we continue to try and make personal risk management a part of everything we do. To carry the battle to our personnel in the trenches, 12 AF has adopted quarterly Ground Safety Attack weeks.

These safety weeks provide a Numbered Air Force-wide focus on key areas of concern. For one week each quarter, the wings attack a specific area of interest on all fronts (from the flight line to the base exchange). The objective is to remind our folks of the dangers that await them and to provide specific training where possible. During these weeks, supervisors at all levels allow personnel to attend specialized training classes that they normally might not be able to squeeze into the daily routine.

Training classes, such as basic swimming and lifesaving, hunter safety, and survival, are offered. To prepare the people psychologically, there is a media blitz both on and off base. In many cases, this involves daily e-mails focused on a specific aspect of that particular week.

Base Services organizations, the base exchange, and even local merchants also support the effort by offering special discounts on items involved in the focus like outdoor rec equipment, automotive parts and first aid kits. Finally, commanders and supervisors get involved by carrying the fight to everyone. Thanks to the efforts of our wing personnel, these weeks are more than “just another safety briefing.” They are an interactive, hands-on approach to risk awareness and mitigation for all personnel: active duty, civilian, and dependents.

In addition, the Ground Safety Attack weeks augment regular safety programs and Air Force initiatives. In January, the attack focuses on vehicle safety for both government- and privately-owned vehicles and includes inspection checklists and training: “What’s a dipstick? How much air goes in them thar tires? You mean the lights and wipers are supposed to work?” Vehicle survival kits are

key to this week — are people prepared if they get stuck in a snowstorm someplace? In April, we prepare for the “101 Days of Summer” campaign with an Outdoor Rec Week. The goal here is to get everyone thinking about outdoor training and safety before they actually take that boat out for the first time or take the family on that first big camping trip. Besides, out west here, the sun shines warmer and people engage in “summertime” activities long before Memorial Day. Remember last year, the Air Force had five drowning fatalities before the “101 Days” campaign even kicked off. In July, we focus on industrial mishaps. While the “101 Days” campaign focuses a lot on off-duty activities, the heat, operational tempo, and efforts to get the most fun out of that off-duty time, greatly affect how we approach our on-duty activities. Therefore, we use this week to focus on those daily duty



activities and the safety precautions we can take on the job. It is a good time to get out of the “business as usual” routine and make sure we have not let bad habits develop into procedures. Finally, in October, we focus on winter safety. It is our chance to get everyone thinking about all those added risks that

winter and wintertime activities bring. Again, these Ground Safety Attack weeks are not intended to be the only way we approach mishap prevention. On the contrary, they are focused efforts that complement and support our other programs.

Trying to be proactive in mishap prevention is not easy, but it does pay dividends. Because common sense is not always common, we must take personal risk management to the people — it is our key weapon. Thanks to the dedication, skill, and creativity of unit safety offices, everyone’s attention gets focused on how they can hurt themselves, their families, and friends when they fail to assess the risks in their lives. These Attack weeks use innovative ideas to highlight the risks and challenge our peers and leaders to lead-turn and prevent the next mishap. Through the Ground Safety Attack program, everyone has buy-in and a real chance to make a difference. ■



Frank J. Powell 477 Bomb Sq
 Gilbert A. Burton, 477 Bomb Group
 Clarence J. Brown 477 Bomb Sq
 William E. Beaumont 477 Bomb Sq
 Charles E. Bennett 477 Bomb Sq
JEAN P. ESQUERRE 477 Bomb Sq
 William Batten 477 Bomb Sq
 Leo W. Fassman 477 Bomb Sq
 Alfred J. Wood 477 Bomb Sq
 Robert Wallace 477 Bomb Sq
 Warren E. Army 477 Bomb Sq
GEORGE L. BING 477 Bomb Sq
GEORGE C. HARDY 477 Bomb Sq
 William A. Johnston 477 Bomb Sq
GEORGE WATSON 477 Bomb Sq
 HAROLD O'NEAL 477 Bomb Sq
WILFRED R. DeFOUR 477 Bomb Sq
 Cecil M. Ryan - Flight Instructor - 477 Bomb Sq
Philip F. Lee - Flight Instructor
 James E. Stokes, 477 Bomb Sq
 Young Downman - 477 Bomb Sq

Conrad Hopper Jr. 477 Bomb Sq
GEORGE S. REED 477 Bomb Sq
 Small C. Johnson 477 Bomb Sq
 Curtis C. Robinson 477 Bomb Sq
 Leonard Jackson 477 Bomb Sq
 Charles E. Washington 477 Bomb Sq
LAMELL V. CLEAVER, Maj. 477 Bomb Sq
CLAYTON F. LAWRENCE, LTC. 477 Bomb Sq
 Donald E. Richardson 477 Bomb Sq
 William H. Holloman II 477 Bomb Sq
WALTER J. PALMER Flight Leader 477 Bomb Sq
SPANN WATSON 477 Bomb Sq
CLARENCE L. SIMPERS 477 Bomb Sq
 W.L. Williams 477 Bomb Sq
 Edward F. Driscoll 477 Bomb Sq
Arthur Furlingham
 1155 M 726 Sd-
ANDREW J. KEYES M.C.O.
 T.A.A.F. CONTROL TOWER
 Richard C. Pollan 477 Bomb Sq
 Harry T. Stewart - 477 Bomb Sq

Ted Campbell 477 Bomb Sq
 Bill P. Wank 477 Bomb Sq
 Signal Bentley Henderson 477 Bomb Sq
 George W. Hagan 477 Bomb Sq
ROYAL W. WATCOCK, Sr. 477 Bomb Sq
RUFUS L. BULLUP, Maj. Gen. USAF
Fred Archer, CMS. USAF - 477 Bomb Sq
 Le Roy F. Gillard, Pt 477 Bomb Sq
Alexander Jefferson, 477 Bomb Sq
 Robert L. Martin 477 Bomb Sq
Robt H. Daniels, Jr. 477 Bomb Sq
 Edward W. Woodward 477 Bomb Sq
FLAZELL MOORE 477 Bomb Sq
 V.V.AYWOOD 477 Bomb Sq
 George L. Hubert, Col. 477 Bomb Sq
Henry B. Peckler 477 Bomb Sq
KENNETH A. WILSON, Col. 477 Bomb Sq



MONTHLY AWARDS

AIRCREW SAFETY AWARD OF DISTINCTION

*Cpts. Ed Lengel, Kate Hene and Steven Gregure
Tech. Sgt. Derek Pinkerton, Staff Sgts. Kevin Stewart,
Patrick Slavin and Richard Dixon
66th Rescue Squadron, 57th Wing, Nellis AFB, Nev.*



While on alert for Green Flag at Nellis AFB, the HH-60G crew of Air Force Rescue 008 was notified that Viper 04 had ejected after a midair collision with another F-16. The crew immediately performed a scramble launch for the recovery. Viper 03 was the initial on-scene commander until he had to bingo for fuel at which point Boar 01 took over. Information was passed to Air Force Rescue 008 that Viper 04 was located on a sheer cliff face on the north side of Mormon Mountain at approximately 5,200 feet mean sea level. He seemed to be in good condition, but radio contact could not be established. Boar 01 vectored Air

Force Rescue 008 to Viper 04's location where the crew made an observation pass and discussed the hazards associated with picking Viper 04 off the side of the cliff. Preliminary power calculations for Air Force Rescue 008 determined that power was not available to hover at Viper 04's location. Air Force Rescue 008 left the scene twice to dump fuel so they could lower their gross weight and increase the power available. The initial attempt at dumping fuel was unsuccessful so they decided to attempt another fuel dump. This time the fuel dump operation worked and they were able to dump 2,000 pounds of fuel. But they still did not have enough power because swirling wind conditions required more power than the maximum that had been reached. The crew then decided to further lighten their load by off-loading the flight surgeon, one PJ, and the fast rope approximately 1,000 feet below Viper 04's location. This worked and a successful approach was made to Viper 04. The crew held the HH-60G at a 50-foot hover in order to provide enough clearance from obstructions on the cliff and to prevent Viper 04's parachute from re-inflating and dragging him off the cliff. While the pilot flew the hover, the co-pilot called power, and the flight engineer began lowering the PJ down to Viper 04 while calling out the aircraft position. Succinct position calls by the flight engineer and precision flying by the pilot was required because the main rotor blades were so close to the face of the mountain. The stable platform allowed the flight engineer to maneuver the PJ over to Viper 04. The PJ swung over to Viper 04 and secured him to the Forest Penetrator, asked him if he was ready; and then released his parachute. The flight engineer received a thumbs-up from the PJ and began hoisting them up to the helicopter. After confirmation that both the PJ and Viper 04 were safely on board, the pilot exited the hover, picked up the remainder of the crew and returned to Nellis AFB. En route the PJs and flight surgeon secured Viper 04 on a backboard and continually assessed his condition until turning him over to the base hospital. The professional airmanship, coordinated risk management, and superb crew resource management of Air Force Rescue 008 were instrumental in the safe return of Viper 04 to his family and to the United States Air Force.

PILOT SAFETY AWARD OF DISTINCTION

Capt. Britt K. Hurst

94th Fighter Squadron, 1st Fighter Wing, Langley AFB, Va.



Capt. Hurst was number one of two on a basic fighter maneuvers sortie when his F-15 experienced a catastrophic engine failure. While initiating the first step as the defender, he selected afterburner and immediately received a voice warning that the left engine was over-temperature. He immediately terminated the engagement, retarded the throttles and initiated a turn towards the nearest divert field, NAS Pensacola. Capt. Hurst directed his wingman to join him in chase position and perform a battle damage check. The wingman noticed fuel streaming from the right engine bay. All engine instrument indications remained within limits except for the right engine fan turbine inlet temperature (FTIT) that indicated 140 degrees Fahrenheit, well below normal temperature for any power setting. With anomalies existing for both engines, he decided to shut down the left one because of the persistent FTIT over-temp voice warning. With a severe fuel leak, an inoperative engine and abnormal indications on the remaining engine, Capt. Hurst wisely executed a high-speed recovery which enabled him to land before his fuel was totally depleted. After a difficult, but well-performed, approach and landing, he safely accomplished an emergency ground egress. Post-flight evaluation of the aircraft revealed that a left engine fan blade had failed and had penetrated both the fan case and center fuselage structure. The accessory wire harness had also been severed causing the faulty FTIT indication on the right engine. In addition, the main fuel feed lines for both engines had been damaged resulting in the massive fuel leak. Capt. Hurst and his wingman superbly performed effective corrective actions during this compound emergency for which checklist procedures do not exist. His exceptional systems knowledge, rapid decision-making and overall outstanding airmanship clearly prevented the loss of an irreplaceable fighter aircraft.

CREW CHIEF SAFETY AWARD OF DISTINCTION

Staff Sgt. James W. Smith

60th Fighter Squadron, 33rd Fighter Wing, Eglin AFB, Fla.



During an hourly post flight 2 inspection on aircraft F-15C 80-0031, it was discovered that the right aileron would operate normally under utility pressure, but was not moving under hydraulic power control (PC) 2 system pressure. In emergency mode, the aileron switching valve assembly hydraulically determines if there is enough PC2 system pressure available to over ride utility system pressure to drive the aileron and flap actuators on their respective wings. If there is enough PC2 system pressure, then the switching valve sends PC2 pressure to the actuators. If there is not enough pressure, the valve sends utility pressure to the actuators. Sgt. Smith used Technical Order 1F-15C-2-27FI-00-1 to troubleshoot the problem and saw no improvement after changing the aileron-switching valve. When he reached the end of the troubleshooting tree, the problem persisted. He then relied on his extensive hydraulic system experience and discovered the PC2 system pressure and return lines had been reversed at the connections below the switching valve assembly. When the lines are reversed, the PC2 pressure port does not receive pressure from the PC2 system which forces the switching valve to send utility pressure to the aileron and flap. Had the aircraft taken off in this condition and experienced an in-flight utility system failure (the most common of hydraulic systems failures), the pilot would not have had any right aileron or flap control. This would have turned a serious situation into a potentially catastrophic incident. Sgt. Smith's intuitive troubleshooting and expertise with hydraulic systems almost certainly saved the 33 FW a valuable combat asset and quite possibly at least one human life.

WEAPONS SAFETY AWARD OF DISTINCTION

*Master Sgts. Darren Walker and Ray R. Culey
Tech. Sgt. Gary M. Spangler, and Staff Sgt. Darren C. Bergsing
28th Bomb Wing, Ellsworth AFB, S.D.*



During a scheduled inspection of a Conventional Rotary Launcher (CRL), Sgts. Walker, Culey, Spangler and Bergsing discovered structural damage to a \$750,000 graphite composite tube. The team immediately checked the Technical Order (T.O.) for further guidance in correcting this matter. To their dismay, the T.O. only referenced a small portion of the damaged area. Realizing the broader scope of the situation, they immediately contacted the Air Force item manager and a Boeing structural specialist for assistance. In a joint effort, this team of armament technicians worked directly with the item manager and Boeing engineers to resolve this problem and

identify any additional areas of the launcher tube that needed repair criteria established. A one-time special inspection was initiated on assigned CRLs. Of the 16 inspected, all 16 were found to have some structural damage. After further investigation of the damaged areas, it was discovered that the original CRL upgrade kit design for the Joint Direct Attack Munition had a flaw. During weapons loading operations, the attached sway brace was able to contact the CRL graphite tube face. This oversight was determined to be the cause of the structural damage. After researching different redesign ideas, it was concluded that the development of a sleeve insert was the best solution. Currently the sleeve is being tested in the field. However, due to the 12 to 15 months needed for testing, approval, and disbursement to the field, an interim solution was needed. This team of armament technicians put their knowledge of the system together and proposed to ACC a quick and inexpensive fix. Their solution was approved by ACC and is currently at the engineering level for final approval. At a repair cost of \$3.00 per launcher, their insightfulness will ensure that no further damage to the graphite tubes will occur during the sleeve testing period. Furthermore, their outstanding ability to quickly assess a hazardous situation and take immediate, wide-ranging action has prevented a possible inadvertent weapons release.

GROUND SAFETY AWARD OF DISTINCTION

*Senior Airman William M. Holmes
99th Reconnaissance Squadron, 9th Reconnaissance Wing
Beale AFB, Calif.*

Amn Holmes displayed extreme professionalism in the discovery of several hazards within building 1025. Amn Holmes found the floor in the Sortie Support Flight industrial work area to be an unsafe, slippery-when-wet surface and the lighting in the shop to be insufficient. He took immediate action by notifying his supervisors, Unit Safety Representative and fellow shop members. He also submitted AF Form 332 work order requests and initiated AF Form 457 hazard reports. In addition, while conducting a scheduled fire drill for the building, Amn Holmes discovered the fire detection/notification and suppression systems were inoperable. He immediately up-channeled these findings, notified the base fire department, resubmitted an AF Form 332 work order request, and filed an AF Form 457 Hazard Report. Finally, Amn Holmes worked with the base bioenvironmental team and conducted a full AFOSH inspection of his flight work area to ensure compliance with safety standards. The initiative and leadership displayed by Amn Holmes reveals he is a conscientious individual who is safety-minded and dedicated to promoting a positive, healthy environment for all members of the 99 RS.

UNIT SAFETY AWARD OF DISTINCTION

*99th Civil Engineer Squadron
99th Air Base Wing, Nellis AFB, Nev.*

The 99 CES EOD flight continues to have the Air Force's largest and most hazardous day-to-day EOD mission in support of the Air Warfare Center's 3.1 million acre Nevada Test and Training Range (NTTR) and the 57 WG. During this one-month period, the flight cleared over 1,000 hazardous dud-fired munitions items. On two separate occasions, there were overflights during this clearing operation which resulted in the team initiating two AF Forms 457 advising senior leadership of the potential loss of aircraft and crew during clearing operations. In addition, flight crews were briefed during Safety Day on the importance of remaining above the altitude restrictions. The EOD flight also supported the CAPSTONE firepower demonstration. The team simulated a cruise missile attack by detonating three 200-pound explosions using the shock tube initiation system for the first time. The shock tube provided precise timing, which allowed the aircrews to fly at minimum levels above the ground, and it did not become a hazardous waste like the previously used time-fuse initiation of shots. The EOD flight supported the Bureau of Land Management (BLM) in Alamo, Nev., by safely recovering, neutralizing, and disposing of a sensitive MJU-7 flare pellet which had been found in a nearby recreational area. The quick efforts of the team allowed the local community and the BLM to return to the area with minimum impact to recreational activities and no damage to the surrounding areas. EOD flight members also supported the Defense Threat Reduction Agency (DTRA) and the Department of Energy (DOE). Using global positioning systems and the MK-26 ordnance locator, they located and excavated large munitions that had failed to function as designed and had overshot the target. Their timely assistance helped DTRA and the DOE to quickly reduce the safety cordon which reduced wasted man-hours and allowed primary assets and personnel to return to their respective areas of responsibility. The EOD flight continues to improve their weapons safety practices. An intensive quality assurance program evaluates EOD technicians on a weekly basis to ensure technical data procedures and safety precautions are adhered to. Their top-notch performance continues to add to the "Outstanding" rating this flight received during their annual weapons safety practices.

FLIGHT LINE SAFETY AWARD OF DISTINCTION

*Staff Sgt. Jeffrey A. Evey and Senior Airman Corneilus D. Wells
28th Operations Support Squadron, 28th Bomb Wing, Ellsworth AFB, S.D.*



Sgt. Evey was the watch supervisor and Amn. Wells was the local controller on duty as the tour crew when a flight of two B-1B aircraft taxied to runway 13 for takeoff. After Amn. Wells cleared the lead aircraft, Satan 21, for takeoff, Sgt. Evey noticed large chunks of foreign material blowing behind the aircraft on the runway. He immediately told Amn. Wells to cancel takeoff clearance for the number two aircraft, Satan 22. The tower crew then alerted base operations of possible foreign objects on the runway and passed the information to radar approach control so they could advise the crew of Satan 21 that their aircraft possibly had lost something on takeoff. The Satan 21 aircrew was unaware of any problems, but began to check

the aircraft. Ground safety then reported that approximately 30 pounds of tread had been found on half the length of the runway. The Satan 21 aircrew determined that they had probably blown a tire and declared an emergency. After they landed safely, the large amount of tread missing from the number 10 tire confirmed this assumption. If it were not for the alertness, attention to detail and teamwork of Sgt. Evey and Amn. Wells, Satan 22 would have rolled through the debris on takeoff and Satan 21 would have landed without any foreknowledge of the bad tire.

Passing The Pen

1st Lt. Erin Bradley
Former Editor, Langley AFB, Va.



Though the time has gone by in a blur, nearly a year and a half has passed since I was introduced as the new editor for *The Combat Edge*. Now it is my turn to pass on the editor's mantle. My entire Air Force career thus far has been spent at Langley and, while I feel very blessed to have been able to enjoy this area for so long, I am excited about the new experiences that await me over distant horizons.

My first two years here at 1st Fighter Wing Public Affairs forced me to get out of the office a lot and learn about the base and its community. I worked with many of the local media to cover Air Force events, wrote and edited articles for the base newspaper, and gave tours to groups of visitors, just to name a few things. My jobs at the 1 FW and my job as editor for *The Combat Edge* taught me much about priorities, deadlines, and the value of a knowledgeable and talented staff. My job, here at the magazine, not only gave me a glimpse into the world of safety, it also gave me a headquarters-level view of how Air Combat Command works as a whole. I will remember the stories I've heard and the lessons I've learned for the rest of my Air Force career — and life.

As I pack up my household goods and plan for my new job as the 100th Air Refueling Wing Readiness and Inspections deputy branch chief at RAF Mildenhall, UK, I have been reflecting on what I would like to leave with you, our readers (other than a new editor). Always keep a sense of humor, and know when to use it. Nothing will ever be perfect, but that doesn't mean that you should not strive for perfection, as long as you know when to walk away, and can do it with a smile.

I would also like to introduce you to Maj. Danielle Coleman, the interim editor of *The Combat Edge*. She started out her Air Force career in intelligence and ended her more than 12 years of active duty as a budget program analyst. A year ago she joined the Reserves and this year she answered our call for an interim editor. While she has not had any formal training, she enjoys the process of editing, has done it informally, and will benefit from being surrounded by an experienced and professional staff. Despite the talent and enthusiasm that Maj. Coleman brings to the table, each month's edition still depends on the articles and safety experiences of our readers.

Thank you for making my time at *The Combat Edge* enjoyable and educational. Whenever I see a copy of the magazine, I will remember the many different ways the magazine has changed my life, as well as others' lives. Don't forget to send in your articles and, as always, stay safe! ■



Flight Safety Stats

ACC & ACC-Gained Losses for FY01

1 Oct 00 - 31 Dec 00
Class A Flight Mishaps

8 AF	
9 AF	
12 AF	
AWFC	
ANG	
AFR	
Aircrew Fatalities	

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

* Non-Rate Producing

HISTORY DOESN'T HAVE TO

During the evening of July 17, two Navy transport ships, the *E.A. Bryan* and the *Quinalt Victory*, were being loaded with high explosives and ammunition. Suddenly, a gigantic explosion rocked the pier killing hundreds of Americans in a single blast. The explosion totally wrecked the naval base and heavily damaged a small town located one and a half miles away. The disaster at Port Chicago Naval Base, Calif., is now on record as one of the most horrific disasters in our history.

The year was 1944 and America's Armed Forces were deep in the midst of WWII. Fighting to preserve democracy thousands of miles away was on the minds of Americans across the U.S. During this time, priority was given to mission objectives that supported war duties, and the risks associated with those duties were accepted as necessary to get the job done. Regrettably, the high cost associated with operating and handling explosives became evident on July 17.

The *E. A. Bryan* was a Liberty ship that had been moored at Port Chicago taking on ammunition and explosives night and day for four days. By 10:00 p.m., the ship had been loaded with approximately 4,600 tons of munitions including 1,780 tons of high explosives. The *Quinalt Victory* was a brand new ship that would be making its maiden voyage. It was being prepared for ammunition loading that was to start later that evening.

When most of the enlisted men arrived at Port Chicago, they were fearful of the explosives they were expected to handle because there was a lack of training, handling equipment, and safety oversight. However, over a period of time, many of them simply got accustomed to the working conditions and discounted the risks of an explosion. In addition, their superiors assured them that the munitions could not explode because they did not have detonators installed. Loading explosives pier side is inherently hazardous by its very nature; however, the

overcrowding at Port Chicago compounded the risks. The pier had almost 400 men, loading equipment, and a 16-boxcar train full of additional explosives. These assets were all exposed to approximately 430 tons of various bombs and projectiles waiting to be loaded on the two ships. The hazards of this environment violated today's cardinal rule of exposing "*the minimum amount of people to the minimum amount of explosives for the minimum amount of time.*" But times were different then, and this was, after all, "WAR."



Just before 10:20 p.m., on the night of July 17, 1944, the unimaginable happened. Two explosions occurred at the pier. There was a "smaller" one, equaling 400,000 pounds net explosive weight (NEW), which was quickly followed by a massive catastrophic explosion equaling 3,806,000 pounds NEW. This detonation was so massive that it equaled the force of an atomic explosion, which this country had never before, or since, experienced.

The devastation was complete. Smoke and fire from the explosion reached 12,000 feet into the night sky while half-ton steel fragments were thrown one and a half miles away. The explosion could easily be seen approximately 35 miles away in San Francisco. The blast created a crater 66 feet

REPEAT ITSELF

*By Master Sgt. Kenneth E. Washington
HQ ACC Command Explosives Manager
Langley AFB, Va.*

deep, 300 feet wide, and 700 feet long, in the river bottom. Several small boats located over a half-mile away reported being hit by a 30-foot wall of water. The 7,212-ton *E.A. Bryan* was literally blown to pieces. The *Quinalt Victory* was lifted out of the water, turned around, and broken into pieces. Not a single piece of the 12-ton train and boxcars on the pier that night could be found. Homes within 1,100 feet were totally destroyed. Homes as far away as 4,500 feet were severely damaged. And windows, in



homes as far as 25 miles away, were blown out. Property damage alone was estimated at \$12 million (in 1944 dollars); however, no dollar figure can be attached to the lives that were lost and broken that night. Very few bodies were ever recovered from the carnage. Three hundred and twenty men on the pier and aboard the two ships were killed instantly, while another 390 men were injured. Of the dead and injured, 200 African-American enlisted men were killed and 226 injured. This tragic mishap accounted for 20 percent of all African-American naval servicemen who died during the course of the war.

There remains a lot of speculation and controversy surrounding the explosion at Port Chicago. Did the officers carry out their duties

without proper knowledge of the extreme dangers of handling explosives? Were the men on the pier doing their jobs competently? Was it sabotage? None of these allegations has ever been proven or completely disproved because of the lack of evidence and testimony from survivors close enough to the explosion. Following the explosion, controversy grew as the enlisted men refused to work under the same unsafe conditions that had generated the catastrophic explosion.

We have learned much from the Port Chicago event. Fifty-six years later, the military is a place of opportunity, fairness, and, most of all, safety. Today, we can be assured that although our missions are still just as essential, the safety of our men and women performing duties in service to their country is just as much a priority. All of the military services currently place great emphasis on explosive safety standards. Agencies such as the Department of Defense Explosive Safety Board survey approximately 260 military installations per year. Their overall goal is to identify and ensure safety compliance for all DoD installations. An average of 20 ammunition and explosive accidents are reported to the Board. This is a small number when compared to the population exposed to hazardous explosives and munitions operations. While there are still hazardous jobs in the Air Force, the risks associated with performing them are decreased through effective safety training and the application of safety techniques like operational risk management. In addition, the dedicated efforts of weapons safety managers throughout the armed services ensure safety policies, now in place, will be updated, reviewed, and enforced. This ensures the safety of our missions, as well as the safety of our military personnel. Although past mistakes cannot be erased, they can be taken as lessons learned and applied to today's mission. This way, the history of the Port Chicago accident "doesn't have to repeat itself." ■

Photos by Naval Historical Center

FLIGHT SAFETY

Maj. Scotty Selman
12 AF Flight Safety
Davis-Monthan AFB, Ariz.

History is a great teacher. This basic concept is the core of why we safety people exist. The 12 AF commander directed a plan to develop Numbered Air Force (NAF)-wide discussions on lessons learned the hard way, which initiated our quarterly Flight Safety Parable program. As aviators, we cannot afford to repeat the mistakes of others.

Each quarter, we provide a set of "Flight Safety Parables" for the wing operations group commanders in 12 AF to use during their quarterly flying safety meetings. We blow the dust off some old mishaps, paraphrase the events, and provide discussion items and/or topics for review. Initially, our primary focus was on the judgment and discipline aspects of the mishap. "Why did good aviators allow this mishap to happen?" We now tailor the themes to concentrate on certain areas or aspects of flight. Example topics have included Judgment and Flight Discipline; Deployment Operations; Weather Problems; Night Vision Goggle Operations; and Spatial Disorientation. We also try to cover all the airframes flown in 12 AF and that includes virtually every type of aircraft found in the Air Force inventory. The only airframes not flown in 12 AF are the T-37, B-52, B-2, heavy airlift and executive support aircraft.

Now, it might seem that there is no way we can find all that information, but there is a central resource we can all use. It is called the

Air Force Safety Center. With a little notice and a topic to guide them, they can search their database and find the mishaps that fit the bill. Our first request asked for a set of mishaps that covered each airframe in the NAF and cited "flight discipline" as a cause. The response was overwhelming. We had so much stuff to choose from that it took some time to select the mishaps that provided the best lessons learned. In subsequent requests, we narrowed the search by specifying operation types and received a much more manageable selection of mishaps.

Another valuable source of information is from the old craniums that are still in the game. Everyone who has been around a while has a "favorite" mishap-the one that sticks in their memory. Using basic information about the incident (i.e., when it happened, where it happened, and a few other details), the Safety Center has been able to research their database and produce the actual mishap report. Another key source of data are the "There I Was..." stories that did not necessarily result in a mishap report but came real close. Instead of telling these stories only at the O'Club happy hour, these near misses can be turned into valuable learning tools that can be shared throughout the NAF. We try to capture these stories and use them as lessons learned.

Following is an example of a Flight Parable that addresses weather issues. As always,

TY PARABLES



information in our parables are sanitized to ensure safety privilege is maintained.

LONG LANDING-RUNWAY DEPARTURE

A two-ship was scheduled for a range mission at a deployed location. Weather conditions included lightly blowing snow and a temperature around freezing. Mishap flight was unable to accomplish any weapons delivery due to weather. The flight returned to base and split up for separate parallel (PAR) approaches. Mishap pilot (MP) broke out of the weather inside of two-mile final and took over visually for the remainder of the straight-in approach. The MP fixated on blowing snow in the underrun and descended well below PAR glide path. The final controller called this and MP corrected back toward glide path. The MP landed 1,000 to 2,000 feet beyond the runway threshold at 15 to 20 KIAS above the airspeed recommended by the technical order. MP thought he had retarded the throttles to idle but had, in fact, left them at 83 percent core RPM. MP delayed applying wheel brakes until 3,600 to 4,600 feet from the end of the runway and then only applied light wheel braking. MP attempted several wheel-braking techniques to include pumping the wheel brakes, but was unable to slow the mishap aircraft sufficiently. MP initiated a successful ejection at approximately 200 to 300 feet from

the end of the overrun.

We provided the following thought provoking questions for this particular mishap:

- Why did the pilot quit following the instrument approach guidance after acquiring the runway environment in reduced visibility? Remember all those landing illusion and transition to landing training tapes?

- Throttles not in idle? Remember, habit pattern changes can lead to errors-reduced visibility, anxiety about landing on a wet/icy runway, and a botched approach to a long landing. This is not the first case of forgetting to retard the throttles and most likely will not be the last — don't be the next.

- Braking technique? We land regularly on long, dry runways, but remember on wet runways it is critical to get slowed down early and make one smooth application on the brakes — let the anti-skid cycle to avoid hydroplaning.

- Pubs Check? Though not a factor in this mishap the Instrument Flight Rules Supplementation, En route Charts, and Tactical Air Navigation (TCN) were out of date. Guess what? The divert bases were in the TCN.

REMEMBER: Mishap prevention data is worthless unless people who need the information get it and use it. Repeating history is dumb — help your fellow aviators learn from, rather than relive, your past mistakes. ■

Safety Mindset

*By Tech. Sgt. John A. Bontempo, Jr.
12 AF Weapons Safety NCOIC
Davis-Monthan AFB, Ariz.*

Safety, what kind of word is it? I have been in the Air Force for 18-plus years and I will be the first to admit that when I was a little bitty airman, safety was the last thing on my mind.

Airmen in the beginning. I still remember the days when my mindset was not the best. I would say to myself as a brand new one striper, "Spotter, I don't need no stinking spotter." The day I helped with a storage operation soon changed that notion. Back then the operative word was "should," as in being told that I should have a spotter. Talk about getting scared straight on spotter use.

I was standing on the opposite side of a trailer where the actual downloading operation was going on. I was picking up and rolling tie-downs. The noise of the forklift drowned everything else out. Then, without any warning, two cans of BSU-49 fins fell off the tractor-trailer and landed a foot behind

me. These containers combined weigh well more than 1,000 pounds! Why did they fall? Because the forklift driver on the other side of the trailer thought he did not need a spotter. The cans he was lifting blocked his view of the cans on the far side. It was these cans that got caught on the forks and landed behind me. Talk about a change-your-shorts kind of moment!

Now that I have established the need for a spotter, let me go further by talking about spotter training. A spotter that has not been trained on the proper procedures for spotting can be just as dangerous as not having one at all. The spotter and forklift driver should know what hand signals will be used and the meaning of each.

Fired up with safety. Many weapons or ammo folks find the job of weapons safety manager (WSM) thrust upon them. This was the case during my first tour in weapons safety. When I received

orders to Korea, I went from being a simple munitions inspector to the WSM. Not only was I walking into new territory, but, as they said at the safety school, "You're going to the base with the worst weapons safety record in all of PACAF." I showed up in Korea as the first school-trained WSM on the base. All of the previous WSMs were self-taught. I had no choice but to dive headfirst into the job. I was quickly nicknamed "The Shadow" because I was there at all hours and never announced my visits. I took to heart what the safety school taught: 80 percent of your day should be spent out and about doing spot checks or just being visible to the troops.

I had much to learn as well. I was going from B-52s at my first base to an A-10 base. This was a different platform, had different munitions and had a different way of doing business. The first challenge was to break the people's mindset that they were there for only one year and could not really make a difference. I was repeatedly told, even from the leadership, that I was in the REAL Air Force now. My return comment was, "*Oh, OK. Then does this mean the REAL Air Force doesn't follow Air Force Regulation (AFR) 127-100?*" (This is known today as Air Force Manual or AFMAN 91-201.) I never did get an answer to that question.

I attacked this mindset head-on, but it was not always enough. One situation that haunts me still to this day occurred with a simple BDU-33 practice bomb. Even some in the safety community seem to think this bomb is nothing to be concerned with. It happened when I was conducting swing and mid-shift spot checks. I was in a flow-through aircraft shelter watching an upload of a 12-each BDU-33 sortie. The loading was going fine, but the line delivery was a different situation.

The Line-D driver seemed to think he was more knowledgeable than the people that wrote the technical order (T.O.). I noticed that he would pull two BDUs from his trailer by the tails and carry them, one in each hand, to the jet. Most people might say no

big deal, but the T.O. says one bomb and two hands. I politely informed him of the deviation and returned my attention to the loaders, who were conducting themselves according to the T.O. Once again I noticed the Line-D driver handling two BDUs at the same time, one hand for each. Again, I informed him of the T.O. instructions. When I turned around a third time and saw that the Line-D driver still was not following the T.O., I was obviously upset. I started to approach him, but before I could speak one word he lost his grip on one of the BDUs. It fell, struck the trailer, and, with the safety block in place, fired. I was struck by the blast dead center in the chest. The explosion caught me off-guard and caused me to stumble backwards and fall to the ground. It was providential that I had been just the right distance away to only get a scorched shirt. As the smoke cleared, I saw the afraid and panicked Line-D driver run from the scene. The load team ran to help me thinking the situation was more serious than it actually was. To say the least, my emotional and professional attitude was not in the best military form at that moment. Quite simply, I was fit to be tied!

Calling the chief and lieutenant out at 3:00 a.m. was not the most pleasant situation, but it did put fear into both of them. What would have happened if I had been one, two or three feet closer to the driver? When I arrived at my next duty station, I was assigned as a maintenance crew chief. The airmen who worked for me could not understand why I had such a pet peeve about BDU-33s. It took only one re-telling of this story for them to clearly understand my position.

Ex-Safety, oh no. At my next duty station, it was interesting to note that there seemed to be a stigma attached to people with safety backgrounds. I would hear comments about every little thing being a safety problem. They even talked about things that are not ever talked about in safety (i.e., paper cuts, lead poisoning from pencils, etc.). It did not bother me.

I guess I just expected it. Once again, it seemed that the overall mindset was a little off the mark. When I brought a safety problem to my supervisor, he said, "This is a training base, we don't do that here." I found this attitude had permeated all of the flight supervision personnel. Again, I would respond, "Show me in the AFMAN where it says training bases are different." I kept reminding them that our base had three combat squadrons in addition to the three training squadrons.

The airmen that I worked with were not in a position to change or question their supervisors. But I was so I started at the bottom and worked my way to the top. I would ask, "What's the difference between the 2.75 rockets we train with and the ones we use in war? What's the difference between the MK-82s our pilots drop in training and the ones we drop in war? The difference is NONE." While the airmen understood my point, the leadership still struggled. As the leadership changed so did this mindset. The new leadership understood that we should train like we fight and we should fight like we train. This change could not have come at a better time.

Trouble in the Storm. It came just before my unit deployed to Desert Storm. When we arrived, the chief of the munitions area asked what prior positions we had all held. He showed a lot of interest in my safety experience, my five years as a munitions inspector and, finally, my maintenance crew chief experience. He took me aside and said he had a challenge for me. He assigned me to the storage section and a special crew. I should have realized then that there was a big difference between a **special crew** and a **particular crew**.

My new crew was special all right. They were responsible for over 50 percent of all accidents in the storage section. These airmen and NCOs seemed to think that we had an endless supply of stockpile items so

it did not matter if they dropped a few here and there. I had to constantly remind them that we did not have an unlimited stockpile and fighting a war with damaged and destroyed munitions would be very difficult. Their tie-down and load stability procedures also left much to be desired. They were routinely transporting loads that required four tie-downs with only two tie-downs. I found myself working on yet another mindset conversion, which I am happy to report was very successful.

The experience I gained during this time was again providential. I deployed three more times to the Middle East. Each time my safety experience was called upon time and again. The call sometimes came by request and at other times was self-initiated as I strived to ensure the safest environment possible.

You, me and everyone. The safety circle has now been completed. I was brought into the wing safety office and am now at the Numbered Air Force safety office. Once again, I am trying to lead by example. Things have changed since the first time I walked into that safety office in Korea. AFR is now AFMAN, and safety is more than just a word. It is a way of life. We have gone from typewriters, forms and rulers to computers and computerized site planning.

AFMAN 91-201 is not black and white; there are many, many shades of gray. It is up to the WSM and staff to weed through those shades of gray and pass guidance on to the personnel at the wings, flights and sections. When questions arise, we need to be here for them. When the AFMAN is confusing, it is the weapons safety community that is trained, should step forward, suggest changes, ask the tough questions, and get involved in making the AFMAN the best it can be. The phrase "*it's always been that way*" is not the answer. It is a sure sign that some mindsets need to be changed. ■

Feagle



THE G SK S T

