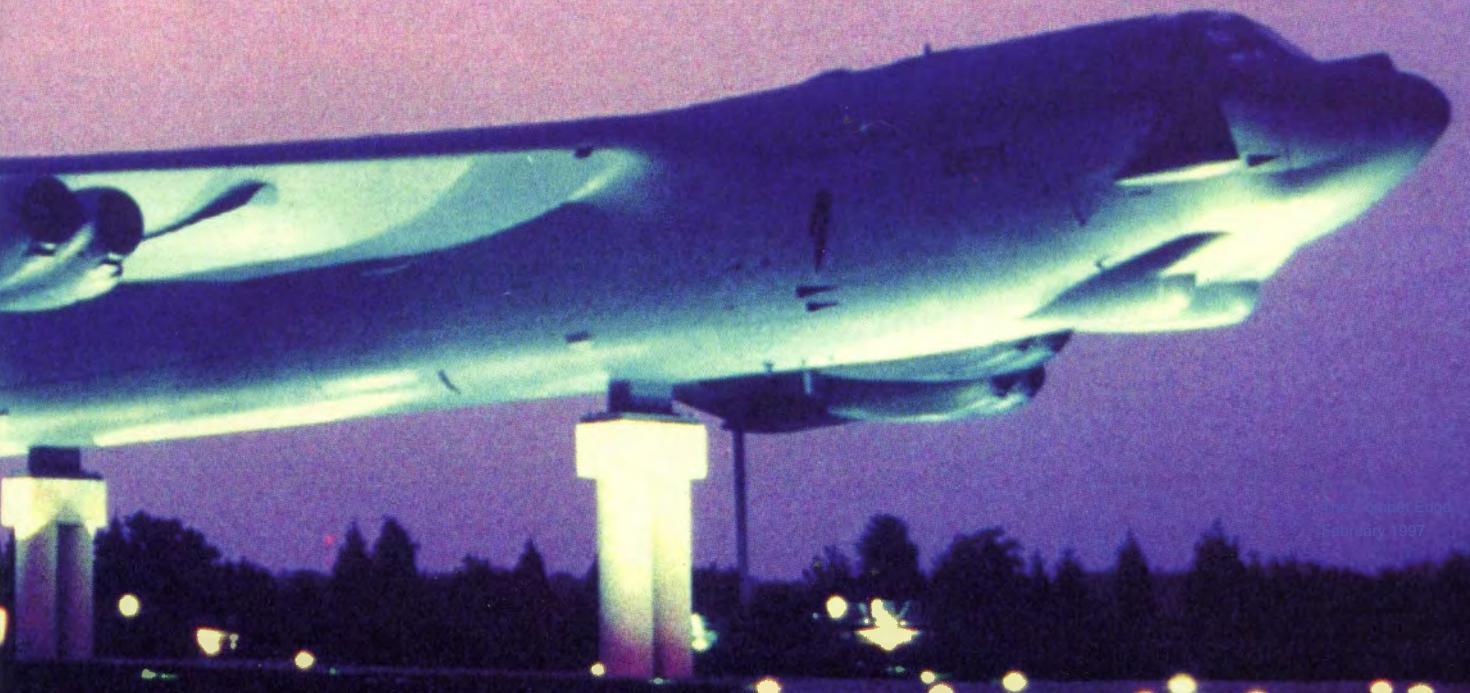


THE COMBAT EDGE

FEBRUARY 1997



The Combat Edge
February 1997

The Combat Edge

AIR COMBAT COMMAND
SAFETY MAGAZINE

Gen Richard E. Hawley
Commander

Col "Turk" Marshall
Chief of Safety

Ron Smith
Executive Director

Lt Col Adrian Robbe
Editor

Barbara Taylor
Associate Editor

SrA Dave White
Electronic Design & Layout

The Combat Edge (ISSN 1063-8970) is published monthly by the Air Combat Command, HQ ACC/SE, 130 Andrews St Ste 302, 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 302, 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 302
Langley AFB VA 23665-2786

Telephone: (757) 764-3658
DSN 574-3658
FAX: (757) 764-6362
E-Mail: robbea@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

FEBRUARY 1997

ACC SP 91-1

VOLUME 5

ISSUE 9

FEATURES

4 THE ENVELOPE PLEASE...

Capt Mark Kirchhoefer
435 FS/DOS
Holloman AFB NM

16 CENTER ART

"Tribute to the Air Force's 50th Anniversary"

SrA Dave White
HQ ACC/SEP
Langley AFB VA

30 STEP OUT AND UP FRONT

Mr. Cal Fai
HQ ACC/SEG
Langley AFB VA

DEPARTMENTS

FLIGHT SAFETY

4

GROUND SAFETY

7, 15, 23

AWARDS

10, 18, 28

ACCOLADES

13

FLEAGLE

14

1996 SURVEY RESULTS

26

BLAST FROM THE PAST

31

Cover photos by

SrA Tim Cook and

SrA Dave McCarrison

feature the B-52 Memorial

at Shellbank Community

Park, Langley AFB, VA.





Accent on Safety



February is the shortest month of the year and it has a federal holiday to boot. Consequently, it is one of the months where we fly the least hours. Nevertheless, it ties as the second worst month for numbers of mishaps occurring since ACC was started five years ago. If you turn that number of mishaps into a rate by dividing by those flying hours, February is clear and away the second worst month for a Class A Flight mishap. The causes run the gamut, but logistics mishaps, especially engine-related, edge out the rest. You could spend a lot of time rubbing your head on that, but I would just offer a couple thoughts. First, the colder winter weather is great for jet performance, but all those extra “thrusties” have got to be pushing and pulling on something. That means more stress and strain which can lead to accelerated fatigue, which can lead to something breaking, which can lead to an operational check of the aircrew’s winter survival. Another thought is that in February the flight line gets to be a pretty cold and more inhospitable place. Fingers get numb right quick and it’s tough to keep your eyes in focus when your teeth are chattering away like a jackhammer. The chances increase that we’ll miss one of those little cues we look for to tell us our machine’s about to break.

Well, I could go on, but this all boils down to the fact that when the conditions get tough, we gotta get even tougher. We really have to concentrate on awareness to make up for what the environment is trying to do to dull our senses. Concentration is work, or at least it seems that way to me, so it shouldn’t be a surprise that you get more tired doing a job now than you would doing the same job later in the springtime. Recognize that, plan for it, slow down and take the time to do it right. And that includes making sure you have the right tools to include wearing the right winter gear!

Last thing before I let you go on to the rest of this month’s issue. Here’s a reminder, Think Cupid! Next to forgetting an anniversary or birthday, there’s nothing worse than forgetting Valentine’s Day. If you miss this one, you might just find yourself out in the cold practicing your winter survival. *Take care and keep safe.*

*Colonel Turk Marshall
Chief of Safety*

The Envelope Please...



Capt Mark Kirchhoefer
435 FS/DOS
Holloman AFB NM

When was the last time you strolled through all of those diagrams and charts in the back of your Dash-1? The AT-38B Dash-1 has over 80 pages of performance data on takeoff, climb, cruise, landing, etc. Some are more user-friendly than others, yet all play a role in mission planning and execution. We can expand on a performance diagram common to most aircraft and include human performance information that could help in mission planning.

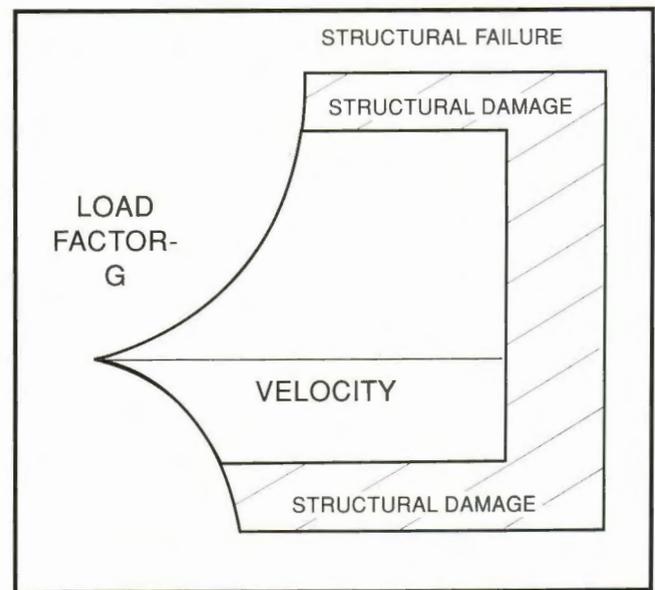
First, let's look at one of these common diagrams found in the Dash-1. Velocity-Load Factor (V-G) diagrams and Energy-Maneuverability (Ps) curves have long been a tool available to the fighter pilot to assess aircraft performance. A comparison of these charts to those of an adversary shows relative strengths and weaknesses that may be exploited. Figure 1 shows a generic V-G diagram with airspeed plotted against load factor, or "G."

The left side shows that, at slower airspeeds, the aircraft is physically incapable of reaching maximum G-loads due to a stall. As airspeed increases, higher G-loads are possible up to the engineered load limits. Beyond these lines, structural damage is possible. Passing beyond what engineers call the "ultimate load factor" may lead to structural failure.

Our nation's best slide-rule sliders use technology to develop aircraft with ever-expanding envelopes and increased

performance. The problems associated with matching the limited physical capabilities of humans to highly capable machines in a constantly changing environment are major concerns for everyone involved in the process. This human limitation might be described by a chart similar to the V-G diagram shown above — with a few modifications. Though not in the back of the Dash-1, this may be one of the most important concepts to consider in mission planning. Plotting proficiency against mission tasking might produce a diagram such as the one shown at Figure 2.

V-G Diagram
(Load Factor vs Airspeed)
Figure 1

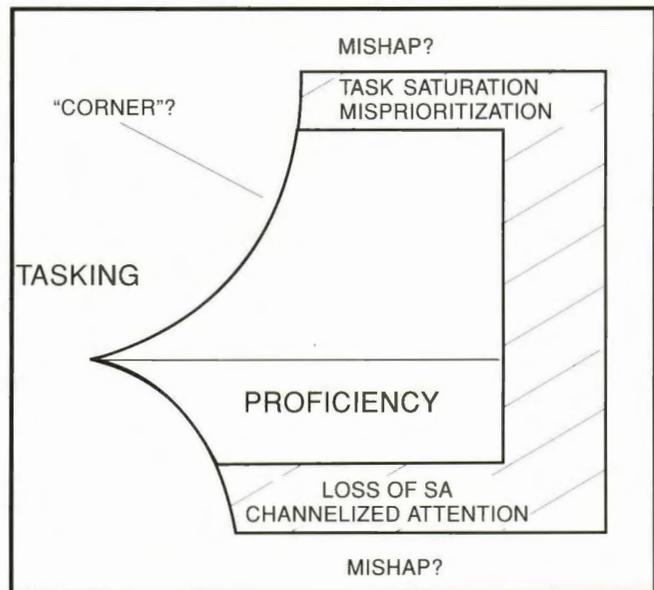


At the start of Undergraduate Flying Training (UFT), proficiency is limited and mission task-loading should be low. The pilot is physically incapable of accomplishing complex mission tasks. Gradually, as experience-levels increase, the ability to cope with more complex tasks also increases. A student pilot may develop a smooth cross-check all the way down to Decision Height in bad weather, or a new wingman may consistently get a good radar sort. At the point termed “corner velocity” on a V-G diagram, performance is optimized. Here, the pilot is a fine-tuned machine—proficient and current at operating all on-board systems, delivering weapons on-time on-target, maintaining formation responsibility, reacting appropriately to threats, and accomplishing a myriad of other tasks that USAF aircrews perform daily around the world.

The V-G diagram is a “snapshot in time” of a dynamic environment. It is based on gross weight, altitude, etc. Just as the aircraft is affected by changes in these parameters, the human envelope is also subject to outside influence. This envelope will continue to expand based on training, proficiency, and experience. Is there a limit to human proficiency as the V-G diagram suggests? This would be difficult to determine, but the significant point to note for all of us is that the envelope’s boundaries change day to day. Respect for those boundaries also grows with increased proficiency and experience.

Any number of influences can shrink the envelope such as the introduction of a new task, a different operating environment, a long lay-off, fatigue, and complacency to name a few. As the envelope shrinks, a mature pilot will recognize it and quickly transition to the

*Human Performance Diagram
(Proficiency vs Mission Tasking)
Figure 2*



basic foundation of flying priorities — aviate, navigate, communicate. All of us need to recognize indicators that the envelope is constantly subject to change. Wingmen should know their limits and have the discipline to speak up and modify the mission

Holloman AT-38Bs fly route formation over New Mexico



accordingly. Flight leads and instructor pilots may have a more developed and refined envelope, but on any given day it may be affected by other factors. We all must be aware of the boundaries of our own personal envelopes and have the integrity to admit that they're not always as all-encompassing as we might think. It's ironic that those who would give the envelope a care-less "push" often need to be "pulled" aside by someone with more situation awareness (SA).

As professional aviators, we all should be attentive to envelope changes in the members of our four-ship, in our crew, in the squadron, etc. Air Force Manual (AFMAN) 11-217 "Instrument Flight Procedures" (the former 51-37) states that, "normally, an unusual attitude is recognized in 2 ways — an unusual attitude 'picture' on the attitude indicator, or unusual performance on the performance instruments." Perhaps we can identify envelope changes in ourselves and others by identifying an unusual "picture" that doesn't match reality or "unusual performance." We can also borrow from AFMAN 11-217 unusual attitude recovery steps to resolve the situation, i.e., recognize, confirm, recover.

Recognize

This may be the most difficult, yet most important step in identifying a potential problem. It's easy to get wrapped-up in day-to-day operations and fail to notice a critical change in our own envelope or those of others. It takes integrity to admit we may not be 100%, and it takes insight to recognize it in others. Showing up late for the brief, inadequate preparation, forgetting or re-doing basic tasks, and missing several radio calls are all indicators of decreased performance. Other external events can make us aware of our envelope limits. Recurrency training, such as the altitude chamber or periodic testing, helps us recall our limitations and recognize areas for improvement.

Confirm

AFMAN 11-217 cautions that regardless of how an unusual attitude is recognized,

verify it by comparison with other instruments. Continuing with the analogy, all we may need to do is ask a question to verify the existence of an "unusual" attitude. Referencing the AFMAN or the squadron standards may be all that is required to confirm that everything is being done right. Confirm that what "looks" like a problem really is one. Get a second opinion, take a step back and look at it from another perspective, or look at other options. Does it really make sense?

Weather is just one of the external factors that affects the mission. A few years ago, a 4-ship had just rejoined off-range and was updating weather at the recovery base. A very busy Supervisor of Flying (SOF) painted a gloomy picture of thunderstorms and lightning moving in; but if we could "land within 10 minutes or so we'd probably get there first." While three flight members double-checked their low fuel states and began picking out a path around the weather, the fourth simply suggested, "I think we should divert." It made sense. In fact, the three other flight members looked at each other, each wishing they had been the one to say it first!

Recover

Here's where we make a decision and stick to it. Even though the IPs are ready to move on, if the wingman isn't ready for a full-up bandit, then keep the restrictions. Pulling yourself or someone else off the schedule is never easy. "Recovery" involves everything from diverting, to aborting, to canceling a mission. Have you ever stepped to fly, knowing full well that you were going to get called back in for a weather cancel? Ask for help when it's necessary. When in doubt, call the Knock-it-off.

Class A mishaps are easily quantifiable; but, unfortunately, many of the good decisions that prevent them are not. Recognizing the limits of our own "envelopes" and of those around us can give us a realistic picture of how to approach the mission. As is usually the case, an occasional step backward to look at the entire picture could save time and lives. ■

DEATH OF A CHEVY



This article was submitted by the 33d Wing Safety Office, Eglin AFB FL. The author requested to remain anonymous.

- Ed.

It was a typical Sunday for the panhandle of Florida, partly cloudy in the upper 80's with rain showers expected by mid-afternoon. My wife and I had driven over to Pensacola to do some mall shopping and were now headed east on Interstate 10. It was close to 4:00 in the afternoon and, sure as clockwork, there was a light drizzle falling. In accordance with Florida laws, we were both buckled in with lights and wipers on. Visibility was still very good - - about 1 mile.

About one-half mile prior to mile marker 38, we came over a hill and saw a large car, turned sideways, blocking the right lane and emergency lane about a third of a mile

ahead of us. An individual was waving a black umbrella in front of the car attempting to slow traffic. Two vans had just pulled over in the emergency lane about 20 feet past the car in the right lane. It was obvious there had been an accident only moments earlier. The man with the umbrella was in jeopardy of being hit by passing cars in the left lane, the only lane open. We immediately slowed the car with absolutely no problems as I engaged the emergency flashers. We stopped the car about 50 feet short of the car in the right-hand lane. We were on the far right side of the right lane with the right wheels in the emergency lane. I noticed a number of

people in both vans, primarily women and children, apparently from a church group. I turned off the engine, but left the lights and emergency flashers on. Both of us exited our 95 Chevy Lumina. I verified the flashers were operational and removed an Emergency Warning Triangle from the trunk, left over from a tour in Europe. My wife ran to the man waving the umbrella

and got him back from the traffic. I ran up the emergency lane about 100 yards and set up the triangle in the center of the right lane. This was at least a quarter-mile from the crest of the hill. Traffic was light and moving into the left lane and decelerating with no problems. A number of trucks crested the hill in the left lane going slow. I presumed they were hearing about the accident over CB radios.

Running back to the accident site, I immediately assisted three other men who were attempting to get the wrecked car out of the right-hand lane. The engine would not start and we couldn't get the car to move in neutral. At this point, only about 3 to 4 minutes had elapsed. The man with the umbrella had moved up the interstate about 600 feet waving his

umbrella to continue to slow traffic. He was now in the emergency lane.

Standing behind the car involved in the accident, and still working with others trying to move it, I looked up to see a semi-tractor trailer cresting the hill. This was a nightmare — he was in the right lane and going very fast. Within 1 or 2 seconds, it became obvious he was not slowing down or changing lanes. He was clear to get in

the left lane, but was not doing so. He continued to barrel straight ahead in the right lane with no apparent attempt to slow down or change lanes despite all the warnings. I immediately yelled for everyone to get over the guard rail. Everyone went over the guard rail, some diving, some jumping, and others not stopping there. Some continued running into the woods. I turned to see the vans, still full of people, unaware of the impending catastrophe.

When the truck hit our warning triangle, he was still doing 70 to 75 mph. At this point I knew our car was about to be pulverized. Hitting the triangle must have awakened him as he swerved the tractor hard left. Between this sudden movement and braking, the trailer jack-knifed to his right. Now, all three lanes were full of a speeding mass of vehicle. On the other side of the guard rail, we were all looking at a trailer going sideways and about to flip over on us! The trailer had gone to about 45 degrees, filling the right lane and emergency lane, when it hit our Lumina.

The impact of the center portion of his trailer against our car literally exploded the Lumina and threw the remaining front half of the car up to the accident scene. This caused the trailer to ricochet into the left lane, in-line behind the tractor. The tractor trailer was still moving so fast that all I saw was a Louisiana license plate. Call it a "sixth sense," but I felt this trucker was going to run.

Sure enough, the tractor trailer continued eastbound despite everything that had happened. The people in the vans stepped out unaware of how close they had come to death. I ran out to the right lane and flagged down a van that had pulled up to the site. The man driving said he saw it all and would go after the tractor trailer. Both of us could still see the tractor trailer climbing the next hill. In the meantime, one of the men who had gone over the guard rail was in contact with 911 on his cellular phone and told the operator what was evolving.

The driver of the green van came back about 40 minutes later with the truck's li-

Everyone went over the guard rail, some diving, some jumping, and others not stopping there.

Some continued running into the woods. I turned to see the vans, still full of people, unaware of the impending catastrophe.

cense number. He had also called it in with a description to the Highway Patrol on his car phone. About an hour after the accident, a State Trooper escorted the tractor trailer back to the accident scene. He had caught the trucker about 20 miles from the accident headed east at 70 mph. Debris and parts found at the accident scene were matched to missing parts from the trailer. Amazingly, the driver still denied any involvement. The Troopers completed the paperwork and the remains of our car were towed away.

What did we learn from this?

First, if we had to do it all over again, we would. However, we would park fully in the emergency lane. We would also put the triangle in the emergency lane.

Second, we would get everyone at the accident site out of their cars and vans and on the other side of the guard rail. A trucker asleep at the wheel doesn't know or "care" that he's about to run over vehicles and people. With his elevated cab, he should have had an earlier view of the obstructions ahead compared to cars that would be at the same point on the hill.

Third, our Lumina would have been destroyed no matter where it was located between the triangle and the original vehicle accident scene. Only the warning triangle being hit and awakening the driver prevented further disaster. Had there been no triangle, the semi would likely have gone over our Lumina, through the car in the right lane, and taken out two vans full of people. Troopers at the scene painted a very grim scenario had we not stopped to assist.

Fourth, truckers aren't all bad. After the accident, many stopped to offer assistance and put out flares. By the way, the one that hit us was charged with criminal Hit and Run, and to make his bad case worse, he failed to show for his arraignment a month later. A warrant has been issued for his arrest.

And finally, cars can be replaced, people can't. Don't place yourself or your family in harm's way. Stop and assist others as you would hope others would if you were in an accident. Get everyone as far away as possible from the interstate or highway.

The trucker's insurance company accepted liability and today we have a new car. Besides our first aid kit and warning triangle, we now carry flares as an added safety measure. Losing our car was the last thing we thought would happen while assisting others. I guess there is truth to the phrase "Always expect the unexpected." ■

Give 'em space! — Additional tips for sharing the roadways with large trucks...

Sharing the road with large trucks is a fact of life for most drivers. Unfortunately, motorists often lack an understanding of trucks' limitations and how to compensate for them. The results can be fatal; in collisions between cars and trucks, car occupants are likely to be the losers.

What should you know about large trucks to peacefully coexist with them on the road? Trucks require at least twice as long a distance to stop as cars. Conscientious, professional truck drivers try to maintain a safe stopping distance between themselves and the vehicle in front of them. But, motorists often deprive truckers of this safety cushion by cutting in front of them.

When you share the road with trucks, be aware that your driving must help compensate for the big rigs' limitations:

- *Give trucks their space.* Don't force them to slow down, stop quickly or maneuver around you.
- *Understand truckers' blind spots.* They can't see objects within 30 feet of the rear of the trailer or cars near the right front fender and wheels. Don't tailgate trucks or drive steadily along side them in their blind spot.
- *Be considerate of a truck driver's need for extra turning room.* Watch the trucker's turn signals, and don't try to squeeze by on either side of a turning trucker. The driver cannot see you.

Monthly Awards



PILOT SAFETY AWARD OF DISTINCTION

*Capt Todd J. Flesch
9 FS, 49 FW
Holloman AFB NM*

On 25 Jun 96, Capt Flesch departed Holloman AFB in an F-117A for a planned night Surface Attack Tactics sortie. After takeoff, Capt Flesch found the gear handle would not retract. A chase F-117A reported that all three gear appeared down and locked; however, the right main landing gear was turned approximately 30 degrees inboard. The F-117A Dash-1 checklist contains extensive gear malfunction procedures; however, no procedures covered Capt Flesch's particular problem. Capt Flesch immediately climbed to high altitude to hold above the field while a hotel conference call was initiated and a plan of action was formulated. With sunset imminent, and fuel becoming a factor, Capt Flesch, in concert with the SOF, squadron, and wing leadership, decided to attempt an approach-end cable engagement, never before attempted in the F-117A. Capt Flesch executed a flawless approach and touchdown, engaged the approach-end cable and brought the aircraft to a stop on the runway without further damage to the jet. An after landing inspection of the aircraft found the right strut failed at the upper scissor link point which caused the right main landing gear to rotate 30 degrees inboard. Capt Flesch demonstrated superior airmanship and flying skills in handling a potentially catastrophic malfunction. His actions preserved a valuable combat resource.

CREW CHIEF EXCELLENCE AWARD

*SrA Shane A. Siegfried
952 AGS, 552 ACW
Tinker AFB OK*

On 23 Nov 96, SrA Siegfried was conducting a routine preflight on an E-3 AWACS at Prince Sultan AB in Saudi Arabia. The aircraft was being prepared for a short notice operational mission. Because he was working under conditions of darkness on a poorly lit ramp, he tapped all aircraft panels to assure that all fasteners were secure. These fasteners maintain the structural integrity of the aircraft and pose a FOD hazard when not secure. Amn Siegfried noticed that when one of the panels was tapped, it had a hollow sound which wasn't consistent with this particular inspection. Though it would have been easy to disregard the peculiar sound, Amn Siegfried was determined to find the source of the problem. Lighting was applied and a closer visual inspection was performed, revealing two small holes in the panel. The panel was removed to perform a search for the source of the holes. It was discovered that the holes were caused by a bleed air duct directly above an engine and immediately in front of a fuel tank. The intense heat of the air leaked from the engine duct and burned through the metal. Had this heated air sufficiently damaged the fuel tank, the results may have been catastrophic. The panel and leak were repaired and the aircraft returned to fully mission capable condition. Amn Siegfried's attention to detail and thorough preflight prevented a potential inflight emergency or worse and make him most deserving of this award.

FLIGHT LINE SAFETY AWARD OF DISTINCTION

*A1C Jonathan Jenkins
4407 RS(P), 4404 WG
APO AE*

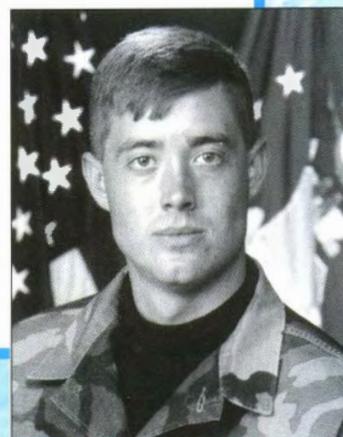
On 27 Sep 96, an operations check was being performed on an Air Cycle Machine (ACM) for an RC-135W. A1C Jenkins heard a hissing noise in the center equipment bay. He proceeded to inspect the area and discovered a leak from the hot air bleed duct on the left side of the center equipment bay. Amn Jenkins quickly stopped the operations check of the system. Further investigation revealed a hole, one inch in diameter, on the duct. If unnoticed, irreparable damage to the aircraft, as well as peril to the aircrew in flight could have resulted. Around the area of the damaged duct are two main fuel lines, aircraft wiring, and in flight pressurization equipment. The danger presented by a leak in the hot bleed air system is the air, in excess of 400 degrees Fahrenheit, can produce a fire. Due to his keen awareness for safety and his outstanding knowledge of electrical and environmental systems, he was able to detect the leak and save a multi-million dollar aircraft from disaster and possible loss of life.

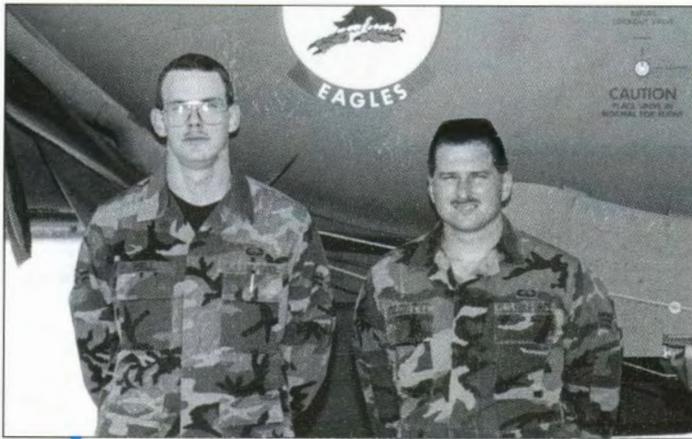


GROUND SAFETY INDIVIDUAL AWARD OF DISTINCTION

*SrA Joseph Williams, A1C Derek Stonic
58 FS, 33 FW
Eglin AFB FL*

On 17 Oct 96, SrA Williams and A1C Stonic were aboard the squadron expediter truck, parked on the 33d Fighter Wing flight line on spot Tango-8, awaiting their aircraft to return from flight. Amn Williams and Stonic then noticed that an F-15, aircraft 85-0110, had made an incorrect turn onto the flight line to return to its parking spot and was in danger of its right wingtip striking a refueling truck parked on the AGE ready-line. Amn Williams told Amn Stonic to stop the taxiing aircraft. Amn Stonic immediately took control of the situation and stopped the aircraft and motioned to the fuel truck driver to move his truck. He then marshaled the aircraft towards its parking spot. The quick thinking and decisive actions of Amn Williams and Stonic prevented what might have been a serious incident, endangering the lives of the pilot, fuel truck driver, and all personnel working on the 33 FW flight line area. Their responsiveness also saved a 30 million dollar aircraft from serious damage.





WEAPONS SAFETY AWARD OF DISTINCTION

*SrA Nicholas Picciotti, A1C James R. Hall
334 FS, 4 FW
Seymour Johnson AFB NC*

On this day, A1C Hall was performing B-man duties on the recovery of an F-15E aircraft. As he was safing the aircraft, he noticed an open end-cap on an MJU-10 flare cartridge in the countermeasures dispenser magazine. The magazine

had signs of burned carbon—leading him to believe the flare was still live and dangerous. Amn Hall quickly notified SrA Picciotti, the other individual who was working the aircraft, and they ensured the flare magazine was safed with the pin, and immediately evacuated the area. They told the nearest flight line supervisor who declared a ground emergency, evacuated the surrounding area, and notified the response teams. EOD personnel arrived on the scene within minutes and promptly removed the hung flare. The biggest concern was that this flare still had the potential for firing. This would have been a danger to the eyes of nearby personnel and would have certainly caused a serious aircraft fire. The entire process—from identifying the hung flare to evacuation—took a mere minute! The quick and decisive actions of Amn Hall and Picciotti saved a valuable combat asset.

UNIT SAFETY AWARD OF DISTINCTION



*Metals Technology Section
388 MXS, 388 FW
Hill AFB UT*

The maintenance professionals assigned to the Metals Technology Section in the 388th Fighter Wing's Maintenance Squadron have perfected the art of providing quality maintenance to their customers while maintaining a "Safety First" approach to doing business. They have taken a proactive approach to safety. The section's long-standing track record of success and

accomplishments attest to this indisputable fact. The safety initiatives developed by the Metals Technology work group are numerous. They

designed a left-hand motor control guard for their metal working lathes that made it impossible for the machines to accidentally energize. They also added a Metals Technology personal protective equipment checklist to

the wing's required deployment clothing checklist. Installation of a safety shield on the Section's belt sander decreased the amount of belt area open to the operator

from 176 to only 22 square inches. This reduction in belt area has significantly diminished the potential for personal injury. The Section implemented a flight line "B-man" training program to instruct Section personnel in the proper performance of fireguard, towing, preflight and postflight duties. This program was instituted when Section members identified the performance of these duties, when TDY, as a potential safety hazard due to lack of any formal training. In addition, the Section built an ejection seat maintenance stand, incorporating the modifications necessary to make it F-16 friendly. The stand allows egress technicians to handle the seat without physical exertion, making it nearly impossible for them to injure themselves or damage the seat. These accomplishments confirm that Section personnel have refused to rest on their laurels and instead have continued to set the example for their unit.

ACColades

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

	TOTAL			ACC			CANG			CAFR		
	DEC	THRU DEC		DEC	THRU DEC		DEC	THRU DEC		DEC	THRU DEC	
		FY97	FY96		FY97	FY96		FY97	FY96		FY97	FY96
CLASS A MISHAPS	0	3	2	0	0	1	0	2	1	0	1	0
AIRCREW FATALITIES	0	10	0	0	0	0	0	0	0	0	10	0
* IN THE ENVELOPE EJECTIONS	0	3/0	2/0	0	0	1/0	0	3/0	1/0	0	0	0
* OUT OF ENVELOPE EJECTIONS	0	0	0	0	0	0	0	0	0	0	0	0

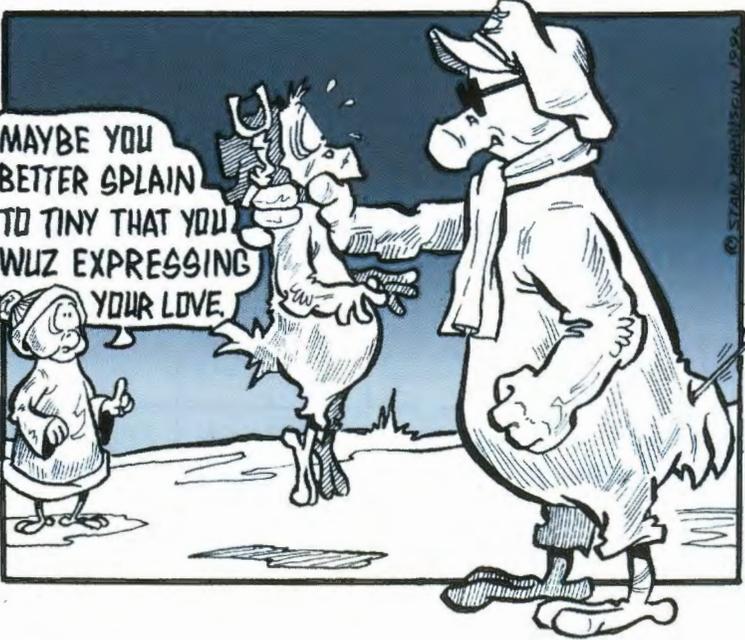
* (SUCCESSFUL/UNSUCCESSFUL)

CLASS A MISHAP COMPARISON RATE

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

	FY 96	0	1.1	0.8	0.6	0.9	1.2	1.0	0.9	1.0	1.4	2.1	2.0
	FY 97	0	0	0									
8 AF	FY 96	0	0	0	0	0	0	0	0	1.2	1.0	1.7	1.5
	FY 97	0	0	0									
9 AF	FY 96	0	0	0	0	0	1.1	1.0	0.8	0.8	2.1	1.9	1.8
	FY 97	0	0	0									
12 AF	FY 96	0	3.4	2.4	1.8	2.9	2.3	2.0	1.7	1.5	1.4	3.1	2.9
	FY 97	0	0	0									
DRU	FY 96	0	0	0	0	0	0	0	0	0	0	0	0
	FY 97	0	0	0									
CANG	FY 96	0	1.9	1.3	2.2	1.8	2.2	1.9	1.7	2.0	1.8	2.0	1.9
	FY 97	0	3.8	2.6									
CAFR	FY 96	0	0	0	0	0	0	0	0	0	0	0	0
	FY 97	0	6.3	4.2									
TOTAL	FY 96	0	1.3	0.9	1.0	1.1	1.4	1.2	1.0	1.2	1.1	1.9	1.8
	FY 97	0	1.9	1.3									
MONTH	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	

(BASED ON PROGRAMED HOURS FLOWN)



Mountain Air ... A Camping Tragedy

Chaplain Thomas Azar
35 FW/HC
Misawa Air Base, Japan

The snow had melted and the roads were clear for the long awaited spring voyage into the pristine mountains of the Orient. The jeep was loaded up, and the two men kissed their wives goodbye as they departed on their much anticipated camping trip.

Marty and Mike were well known, respected, hard workers on the job as well as good fathers and husbands at home. They were also two of the finest Boy Scout leaders on base. When they didn't return home on Tuesday night, their wives contacted one another and asked if either had heard from their husbands since they departed on their camping trip. Both of their answers were, "No." They began to worry and called a few friends to see if any had received a phone call from their husbands. Once again, nobody had heard from the two men. The wives then called their husbands' First Sergeant, who, in turn, contacted the local police. They sent a message to the campground police to see if anyone fitting the description of the two men might have shown up, either at the police station or hospital.

The park police searched the campgrounds; a radio call later came in from the higher elevation that the two men were found asphyxiated in their tent. Their bodies were black, rigid, and frozen in their final sleeping position. Somehow, the tent was zipped so tight that the lantern burning inside consumed all the oxygen.

Did the campers know about the dangers associated with burning a lantern in a completely sealed tent at night? Were they ever instructed in how to avoid such a safety mishap? How could two scout leaders become victims to the very dreaded end that they themselves taught others to avoid? These and other questions emerged after the funeral. The answers will not bring these men back from the grave; but, hopefully, lessons learned from this tragic event will help protect others from a similar disaster. ■

Lessons Learned

The following are a few safety tips campers can benefit from as they prepare for spring and summer camping trips.

1. - People: Regardless of who you are traveling with, always talk honestly and openly regarding your level of expertise. Learn what your team's strengths and weaknesses are. An ounce of humility is worth a pound of life. Never engage the outdoors alone! Use the buddy system.
2. - Products: Discuss with your teammates how all camping equipment is used and how each piece contributes to safety. Let every person handle each item so they can become familiar with each piece of equipment and how it functions and operates. Examples of such equipment include a cooking stove, lantern, as well as any type of specialized, camping tool.
3. - Plan: Talk to other campers about the environment, weather, and wildlife. Plan out your strategy (i.e., - who will carry out the plan, how and when); pay special attention to areas that could be unsafe. Get feedback on your camping plan.
4. - Party: Alcohol and the outdoors don't mix. Alcohol is a thief that steals away the mind and prevents one from being safe. Remember, major land and boat accidents usually involve drinking.

Conclusion

As a chaplain, I have concluded that funerals are for the living. The surviving spouse and children have to carry on without the deceased. They have to make sense out of the mishap; senseless deaths create the greatest amount of pain. In the military, we are always taught to be safe, smart, and sharp. Unfortunately, tomorrow is never promised, and even the most prepared campers can meet up with an unexpected factor - person, product, or plan - that catches you off guard and brings you prematurely before your Maker.

THEN



This is a tribute to the United States Air Force's 50th Anniversary. The illustration depicts the transition of air power over half a century.

*The aircraft at the top right is an early model F-84 "Thunderjet" and at the bottom left is an F-117 "Nighthawk." Look for follow-on "Then and Now" articles in future issues of **The Combat Edge**.*

U.S. AIR FORCE



1947 - 1997



INNOVATION

David White

Annual ACC Awards



COMMANDER'S AWARD FOR SAFETY

8 AF
Barksdale AFB LA



SAFETY SUSTAINED SUPERIOR PERFORMANCE AWARD

MSgt Michael Janca
55 WG, Offutt AFB NE



SAFETY OFFICE OF THE YEAR - CATEGORY I

4 FW
Seymour Johnson AFB NC



SAFETY OFFICE OF THE YEAR - CATEGORY II

33 FW
Eglin AFB FL

DISTINGUISHED CHIEF OF SAFETY AWARD

Lt Col Patrick T. O'Brien
55 WG
Offutt AFB NE



DISTINGUISHED PILOT SAFETY AWARD

Capt Christian H. Rose
121 FS, 113 WG
Andrews AFB MD



DISTINGUISHED AIRCREW SAFETY AWARD

Maj Ted E. Sprague, Capt Kun-Kuei Lee
435 FS, 49 FW
Holloman AFB NM



OUTSTANDING ACHIEVEMENT SAFETY AWARD

27 FW
Cannon AFB NM



OUTSTANDING ACHIEVEMENT SAFETY AWARD

314 AW
Little Rock AFB AR



OUTSTANDING ACHIEVEMENT SAFETY AWARD

928 AW
O'Hare IAP ARS IL





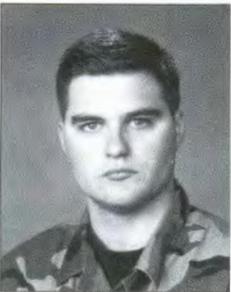
DISTINGUISHED FLIGHT SAFETY OFFICER AWARD

Maj Phillip P. Taber
33 FW
Eglin AFB FL



DISTINGUISHED FLIGHT SAFETY NCO AWARD

MSgt Kevin K. Bailey
388 FW
Hill AFB UT



DISTINGUISHED CREW CHIEF OF THE YEAR AWARD

A1C Steven H. Hillier
4 FS, 388 FW
Hill AFB UT



DISTINGUISHED FLIGHT LINE SAFETY ACHIEVEMENT AWARD

MSgt Michael S. Preston, SSgt Craig A. Podwel
SSgt Pasquale V. Taricani, Jr., SSgt Bradley T. Powers, SSgt. Paul T. Johns
4 OSS, 4 FW
Seymour Johnson AFB NC



DISTINGUISHED GROUND SAFETY ACHIEVEMENT AWARD

SSgt David L. Hansen
65 TS, 65 ABW
Lajes Field Azores



EXCEPTIONAL GROUND SAFETY LEADERSHIP AWARD

TSgt Rodney F. Robinson
33 FW
Eglin AFB FL

SUPERIOR PERFORMER IN GROUND SAFETY AWARD

Ms Karen D. Rogow
366 WG
Mt Home AFB ID



CMSGT PAUL A. PALOMBO AWARD FOR DISTINGUISHED GROUND SAFETY NEWCOMER

MSgt (Sel) Mark W. Nichols
49 FW
Holloman AFB NM



ANNUAL UNIT GROUND SAFETY AWARD - CATEGORY I

49 FW
Holloman AFB NM



ANNUAL UNIT GROUND SAFETY AWARD - CATEGORY II

33 FW
Eglin AFB FL



ANNUAL TRAFFIC SAFETY AWARD - CATEGORY I

49 FW
Holloman AFB NM



ANNUAL TRAFFIC SAFETY AWARD - CATEGORY II

33 FW
Eglin AFB FL





EXCEPTIONAL WEAPONS SAFETY OFFICER AWARD

Mr. Robert D. Lynam
314 AW
Little Rock AFB AR



EXCEPTIONAL WEAPONS SAFETY NCO AWARD

MSgt Trent D. Smith
366 WG
Mt Home AFB ID



DISTINGUISHED WEAPONS SAFETY ACHIEVEMENT AWARD

4 EMS, 4 FW
Seymour Johnson AFB NC



OUTSTANDING UNIT WEAPONS SAFETY AWARD - CATEGORY I

4 FW
Seymour Johnson AFB NC



OUTSTANDING UNIT WEAPONS SAFETY AWARD - CATEGORY II

33 FW
Eglin AFB FL

HEARING CONSERVATION

*SrA AnnaBelle White
1 AMDS/SGPM
Langley AFB VA*

Noise Induced Hearing Loss

Loud noise is hazardous to your health, can lead to permanent hearing loss, and is the leading cause for loss of hearing in the United States. However, noise induced hearing loss is preventable by wearing proper hearing protection. As noise levels increase, the amount of time you can be exposed without being harmed decreases. Other factors that impair the hearing are age, ear trouble, or time and distance from the source of sound. Hearing effects are cumulative; the more noise your ears are exposed to (on and off the job), the more hearing you may lose. Hearing loss progresses very slowly and is not obvious at first. The problem is that by the time you're aware of the hearing loss, it's too late. The damage occurs to the delicate *hair cells* in the inner ear.

Hearing loss due to noise exposure is permanent and cannot be corrected by surgery or medicines. Hearing aids just amplify distorted sounds heard without the hearing device. To determine if hearing protection is required, a good guide to follow is the 3-foot rule. It is a method of identifying if noise levels are loud enough to cause harm. You can be certain you are in a hazardous noise environment if you have to shout at a distance of 3 feet (arms length) or if you have to raise your voice at 1 foot to be understood. You should always use earmuffs or properly fitted earplugs to reduce the noise getting into your inner ear.

If you are exposed to a hazardous noise area at work, your supervisor is required to provide you with form fitted earplugs, adjustable earmuffs, or foam earplugs. Fitted earplugs can be obtained from the Occupational Medicine section within your local Public Health office on base.

About Hearing Protection

Proper use of hearing protection can prevent hearing loss. Be aware and simply avoid being exposed. However, when exposure is unavoidable, use earplugs or earmuffs to protect your ears from most common noise sources. An exception is for personnel working immediately adjacent to aircraft while on high power settings; in this case, earplugs and earmuffs should both be worn.

**Sound is measured in decibels (dBA).
For example:**

- Whisper - - 30 dBA
- Conversation - - 60 dBA
- Average Background - - 80 to 90 dBA
- Power Tools - - 100 dBA
- Jet Engines - - 130 to 140 dBA

*Levels greater than 85 dBA are considered
hazardously loud.*

Earplugs should be worn whenever exposed to hazardous noise, both on and off duty. If earplugs are worn daily, they should be washed daily. Wash in warm soapy water, rinse and air dry. Do not use rubbing

(isopropyl) alcohol for cleaning. In addition, if you lose your earplugs, just drop by the Public Health office anytime and get more. You don't need an appointment or audiogram to receive them.

Some Common Questions About Noise

Question - How much noise is hazardous?

Answer - You can develop hearing loss if you are exposed to 85 dBA for 8 hours per day.

Question - Are all kinds of noise equally hazardous?

Answer - No. The most hazardous is pure tone noise in which you can distinguish a single tone. The next is broad band noise, where you cannot distinguish one particular tone.

Question - Is off-duty noise hazardous?

Answer - Yes. For instance, a rock concert, model aircraft flying, weapons firing, motorcycling, or even mowing the lawn can be harmful to your hearing. Remember, the more noise you add, the more hearing you subtract.

Question - How can I protect myself?

Answer - Be aware of your surroundings, and avoid being exposed. When exposure is unavoidable, wear proper hearing protection.

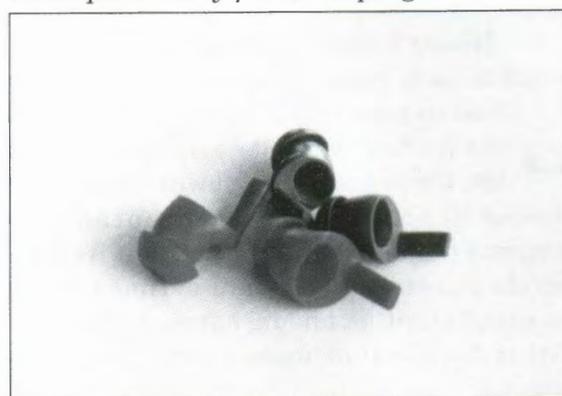
Question - Are there any symptoms of overexposure?

Answer - Yes. You will most likely experience a "ringing" in your ears. This is due to trauma to the ears. This is normally temporary, but repeated exposure can make this permanent.

Types of Earplugs

V51R and Triple Flange personally fitted earplugs have two advantages over the E-A-R single use foam earplugs. The benefits of personally fitted earplugs are that they are good for use up to 6 months and are inserted quicker and easier than E-A-Rs. To insert E-A-R plugs, you must

V51R personally fitted earplugs

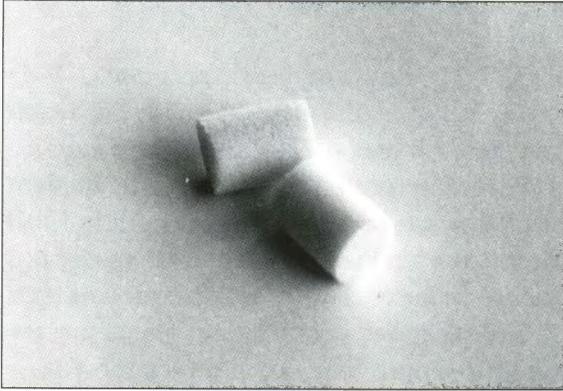


roll them in between your fingers until they are the thickness of a pencil. They are then inserted into the ear and held until the plugs expand (usually 1-2 minutes in warm weather and 2-4 minutes in cold weather). The directions are also on the E-A-R container. To properly place the V51R earplug, simply insert it into the ear and rotate it to the rear. To properly place the Triple Flange

Triple Flange personally fitted earplugs



E-A-R single use ear plugs



plug, insert it so that the largest flange touches the outer rim of the ear canal. In all cases, when inserting earplugs, you should straighten the ear canal by lightly tugging the ear up and back. Also, in order to preclude unnecessary buildup of bacteria, do not lick or moisten the earplugs with your saliva before placing them in your ears. Moreover, you should wear only approved earplugs or earmuffs.

Hearing Conservation Program Requirements

Air Force medical personnel are very much aware of hearing loss problems. As a result, there is a continuous and comprehensive program to reduce personnel noise hazards throughout the Air Force; this program is called the Hearing Conservation Program and includes:

1. Periodic hearing tests to detect hearing loss before it becomes permanent.
2. Educational briefings and distribution of information letters or pamphlets to acquaint personnel with the hazards of noise.
3. Design of less noisy ground equipment and aircraft.
4. Design of enclosures to attenuate noise from equipment that cannot be internally modified.
5. Issue of earplugs/muffs and other specialized protective equipment to personnel when noise attenuation is either economically or technically not feasible.

All Air Force members are required to follow the guidance set forth by the Hearing Conservation Program. In fact, failure to comply with current standards could result

in disciplinary action against an offender and supervisor under the new Air Force Occupational Safety and Health (AFOSH) Standard 161.17 "Standardized Occupational Health Program."

Remember, hearing loss from exposure to loud sounds is permanent and irreversible. It is preventable when you wear hearing protection. You are the only person who can care for and be responsible for your hearing. Don't let yourself down! Lastly, if you ever have any questions concerning noise or occupational health, please contact the Public Health office at your base. That's why we're here - - to be a help and service to you. ■

Some Misconceptions about Noise

1. Noise induced hearing loss can be cured. True or False?
- False. Once hearing loss due to noise has become permanent, there is no surgery or medication that can help recover one's hearing.
2. Use of earplugs while working creates a safety hazard. True or False?
- False. It is more of a safety hazard to work without them. Earplugs/muffs reduce the high frequency noise that damages your hearing. They do not interfere with those frequencies involved in speech.
3. Single use E-A-Rs are better than personal fitted earplugs. True or False?
- False. Both types of earplugs give you adequate protection. However, as mentioned earlier, personally fitted earplugs are easier and quicker to insert.
4. I can borrow my buddy's earplugs when I need them. True or False?
- False. This is not a hygienic practice. Also, personally fitted earplugs come in various sizes and are custom made to fit each individual. Proper fitting is provided by Public Health personnel.

1996 SURVEY RESULTS

In our September 1996 issue, we asked you to participate in a survey so we could measure how well we're meeting your needs as a customer. We need your inputs to improve **The Combat Edge** and better serve you. To all the people who took the time to send us their opinions, **THANK YOU**. We enjoyed reading your thoughts (yes, we read every survey) and appreciate your honesty. To everyone who didn't send us a survey, we can only assume that we're satisfying your needs; otherwise, you would have told us.

Applicable portions of the survey have been reprinted along with your responses. For questions 1-3, 5 and 43, the numerical entries are percentages (i.e., 42 percent of our survey respondents read the magazine very often, 42 percent - often, 8 percent - sometimes, etc.) Question 4 reflects the order of preference for reading determined from the surveys. The responses listed for questions 7-41 are numerical averages and reflect how well we rated on the scales included in the survey. Remember, for

questions 7-21, low numbers are good. We will continue to analyze the data and use the results in planning future issues of **The Combat Edge**.

Overall, we interpreted the data to indicate that **The Combat Edge** has been fairly successful in fulfilling its charter. Our goal is to prevent mishaps by providing accurate and useful information concerning flight, ground and weapons safety. The magazine staff is committed to improving our product for you -- the customer. We intend on doing just that, based on your responses.

Again, thanks to everyone who filled out a survey and now... how about an article? You can help make us better and correct the shortfalls you identified by sharing your experiences and expertise with your fellow readers. We are completely dependent on **YOUR** articles.

*The Staff of
The Combat Edge*

1. How often do you read this magazine?

- | | |
|-----------------------------|----|
| a. Very often (every issue) | 42 |
| b. Often (most issues) | 42 |
| c. Sometimes (some issues) | 8 |
| d. Seldom (very few issues) | 8 |

2. How do you normally obtain this magazine?

- | | |
|-------------------------------------|----|
| a. Official USAF distribution (PDO) | 54 |
| b. GPO subscription/direct mail | 8 |
| c. Library | 0 |
| d. Co-worker, associate, friend | 8 |
| e. Other | 30 |

3. How much of each issue of this magazine do you read?

- | | |
|----------------------------|----|
| a. All | 31 |
| b. Most | 42 |
| c. About half | 15 |
| d. Some | 8 |
| e. A little | 0 |
| f. Look at but seldom read | 4 |
| g. None | 0 |

4. List the following magazines in your order of preference for reading (i.e. - which one would you read 1st, 2nd, etc.) Consider information most appropriate to duties, style, content, lessons, basic interests, as well as professional interests.

- | | |
|---------------------------|---|
| a. The Combat Edge | 1 |
| b. Flying Safety | 2 |
| c. Road & Rec | 5 |
| d. Mobility Forum | 6 |
| e. Approach | 4 |
| f. TIG Brief | 3 |
| g. The Torch | 7 |

5. How soon do you see a copy of this magazine after it is published?

- | | |
|---------------------------|----|
| a. One week or less | 52 |
| b. One to three weeks | 24 |
| c. Three weeks to a month | 20 |
| d. A month or more | 4 |

6. What magazines or newspapers do you regularly read? **Daily Paper, Base Newspaper, Airman**

We are interested in your assessment of **The Combat Edge** magazine. When choosing an answer, write in the number corresponding to the extent you agree or disagree with each statement.

<i>Strongly Agree</i>	<i>Agree</i>	<i>No Opinion</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
1	2	3	4	5
7. The Combat Edge satisfactorily presents safety information.				1.88
8. The Combat Edge is as interesting as other publications I read.				2.04
9. The Combat Edge is as informative as other publications I read.				1.96
10. The level of reading in The Combat Edge should not be higher.				2.40
11. The articles in The Combat Edge are technically accurate.				2.40
12. Overall, the appearance of The Combat Edge is good.				1.48
13. Coverage of flight safety issues is adequate.				2.08
14. Coverage of ground safety issues is adequate.				2.19
15. Coverage of weapons safety issues is adequate.				2.38
16. The number of photos, illustrations and charts in The Combat Edge is sufficient.				2.08
17. The Combat Edge articles are informative.				1.96
18. The Combat Edge articles are interesting.				1.92
19. The Combat Edge magazine is useful to me personally.				2.19
20. Article topics are in tune with important trends.				2.08
21. The Combat Edge is an effective mishap prevention tool.				2.04

For the areas listed below, please rate each using the following scale:

<i>Poor</i>	<i>Fair</i>	<i>Satisfactory</i>	<i>Good</i>	<i>Excellent</i>
1	2	3	4	5
22. Covers		4.19	32. Article thoroughness	3.59
23. Layout (professional appearance)		4.27	33. Article variety	3.65
24. Article quality		3.69	34. Awards coverage (number and frequency)	3.69
25. Photographs		4.08	35. Award write-ups	3.50
26. Illustrations		3.92	36. Usefulness in my job	3.27
27. Information value		3.73	37. Timeliness of articles/issues	3.64
28. Use of color		4.23	38. Accuracy	3.60
29. Thought provoking nature		3.69	39. Usefulness in increasing expertise	3.62
30. Type (size and style)		3.96	40. Attractiveness	4.27
31. General interest/entertainment value		3.65	41. Overall value	3.96

42. Has a **Combat Edge** article ever saved your life or kept you from doing something dangerous?

YES -- 0 MAYBE -- 3

43. How would you rate this magazine in comparison with other publications dealing with the same or similar subject matter?

a. The best	29	c. Average	21	e. The worst	0
b. Better than most	46	d. Worse than most	4	f. Don't know	0



FLIGHT SAFETY AWARD OF THE QUARTER

*Capt Paul Gallaher
55 WG
Offutt AFB NE*

Capt Gallaher continues to set the standard for Flight Safety Officers. He distinguished himself by serving as the Chief of Safety/Flight Safety Officer for the 4409th Operations Group at Riyadh and Prince Sultan Air Bases, Saudi Arabia. His dynamic management and strong leadership of the safety program, for over 2,500 personnel in Saudi Arabia, Kuwait and the U.A.E., resulted in zero Class A or B mishaps during this unusual 95-day rotation. He conducted periodic flight safety meetings for aircrew members, providing them with AOR specific hazards and areas of concern. Squadron Commanders were kept "in the loop" on flight safety issues with his newly designed flight assessment worksheets. These were completed after each of his flights with their squadrons. His assertiveness and ingenuity led to a higher mission capable rate for KC-135R tankers by ensuring the sharing of more powerful air conditioning carts, normally used by AWACS and RC-135 aircraft. This action resulted in less equipment failures and better morale for the aircrews in the 130-degree temperature cockpits. During periods of runway construction at Riyadh Military Airfield, he continuously met with Saudi Safety and Airfield Management counterparts to ensure safe operations in a high-FOD potential environment. These actions resulted in zero FOD incidents for the duration of his tour. Additionally, he maintained RC-135 Instructor Navigator proficiency by regularly flying Operation SOUTHERN WATCH missions.

Due to security considerations midway through his tour, all coalition aircraft assigned to Riyadh and Dhahran Air Bases were directed to move to Prince Sultan Air Base under strict timelines. Capt Gallaher was chosen as the flight safety representative to assess Prince Sultan Air Base prior to the arrival of coalition aircraft. Upon inspection, he found that the airfield needed considerable attention prior to use. He immediately requested deployment of Airfield Management personnel to increase the safety margin for an airfield that had not been used by coalition aircraft since Operation DESERT STORM. He met regularly with RED HORSE, Air Traffic Control and CENTAF Civil Engineering officials to review airfield discrepancies and their status. He was lauded by British, French, Saudi, and U.S. officials for negotiating the crucial air traffic deconfliction of approximately 50 coalition Operation SOUTHERN WATCH sorties per day from the new operating location. Again, hard work was rewarded with results which, 30 days prior, had seemed unattainable. 4409th Operations Group aircraft arrived on time and flawlessly flew their first SOUTHERN WATCH mission the day after arrival. The "move," which had earlier been estimated to take 6 months, was rapidly completed in 45 days with no reportable mishaps.

GROUND SAFETY AWARD OF THE QUARTER

*MSgt Thomas P. Harmon
55 SUPS, 55 WG
Offutt AFB NE*



MSgt Harmon has aggressively labored to make the Fuels Management Flight Safety Program the best in the Air Force. He was instrumental in transforming the 55th Supply Squadron Safety Program into one of the best on base. He developed comprehensive AFOSH briefings for each element. His AFOSH format was adopted squadron-wide. He completed an extensive self-inspection of the entire flight on a quarterly basis. In addition to the inspections, Sgt Harmon performed over 570 no-notice safety spot inspections in the last year. Sgt Harmon also developed an automated tracking system to ensure all personnel, shifts and tasks were given equal attention. His efforts have paid great dividends for the flight. During the Air Combat Command Quality Air Force Assessment, the flight received a virtually error-free report; and during the Annual Wing Safety Inspection, the flight had no safety discrepancies. Sgt Harmon developed a Fuel Vapor Indicator training program for personnel required to enter confined spaces. This program guarantees all safety requirements are met. He streamlined the flight's AF Form 55 program to ensure all requirements were properly documented.

Sgt Harmon identified a potential hazard during a construction project on the Fuels Flight bulk storage tanks. High level apparatus was being installed on the steps leading to the top of the tank in such a way that personnel would have to lean over the railing to get by this equipment. The apparatus was moved closer to the tank and the brackets cut off to allow people to move safely around this area. His quick thinking and attention to detail eliminated the need for a design deficiency being submitted and the possible risk of injury to our people.

Sgt Harmon's outstanding reputation led to his selection as the Squadron Alternate Safety NCO. His keen awareness of safety requirements was evident in the Wing Inspection. The squadron received laudatory comments in 14 assessed areas—the best squadron report to date. The Inspector, SSgt Holiday, stated: "This is the best program I've seen in the AF," and Lt Col O'Brien, Chief of Safety, concurs that the Mishap Prevention Program is "second to none." Sgt Harmon's efforts in ensuring the safety of the supply personnel and equipment should be recognized. His briefings have provided valuable data to personnel and reduced major mishaps and lost duty time due to injury.

STEP OUT and UP FRONT

Mr. Cal Faile, HQ ACC/SEG, Langley AFB VA

In this day and age of manpower reductions, increased mission requirements and taskings, you wonder sometimes where will it all end and how will we accomplish all the taskings we have. Then, a brand new requirement comes down; now, what do you do? Do you just throw up your hands, complain loudly and blow off a lot of steam; or do you sit back, take a deep breath, count to ten, plan your actions and go on from there?

Many of us have had to do just that lately. There is no real light at the end of the tunnel for the manpower situation, and added safety related program elements and issues keep coming in. We cannot just create more qualified individuals when there are just not any candidates out there, and this situation is not going to improve greatly or go away in the very near future. So, as a true professional, you must ensure that you train your existing personnel properly and utilize them in the most effective way possible to accomplish the mission safely. You must also develop positive and professional ways to adjust to and improve your unique situations. Your main concern should be to ensure your unit's mishap prevention program is working and the commander is on top of things that are necessary to safely accomplish the assigned mission.

I realize that this is not easy, but it is within everyone's capability. As professionals, we have been called upon many times to resolve issues and get the job done in spite of unfavorable circumstances. So, what we are dealing with now, on a day-to-day basis, is no different. Recently, I have been required to make sacrifices and surely you will too. However, if we work together with common goals, we can solve almost anything. Communication is the first step to achieving understanding and problem solving, but you have to

remember communication is a two-way street. Everyone has a right to complain, but only the wise, proactive professional will provide ideas to eliminate problem areas. If you have a better way to accomplish the job, don't hide it; let everyone involved know. Someone you help today may be there to help you tomorrow. Let's all consider "Stepping Out and Up Front" to make working in ACC safer and better for everyone. ■

This is my last article for The Combat Edge as a member of the HQ ACC Safety team and family. It has been a wonderful 13 years working with all of you safety professionals. I will surely miss the good times that we have shared throughout the years, and I will miss each of you. However, there comes a time we all must consider "stepping out and up front" and moving on to other challenges. Today it's my turn; tomorrow it may be yours. I look forward to serving in my new position as an Air Force Career Program Manager at Randolph AFB, Texas.

I sincerely believe that you have the best headquarters safety team in the Air Force here at ACC. It has been a pleasure working among and with them. I would also like to express my appreciation to The Combat Edge team for allowing me the space to express my views in several articles that they were courageous enough to publish. Where else can you find a command publication branch that supports all disciplines of safety the way they do? Nowhere, guaranteed!

I will continue to be in touch with some of you during the coming years. For those of you I may not see again, may the cold winds of time always be at your back and a warm soothing breeze favor your new adventures wherever you may go. Good luck and may life be good to all of you.

- Cal Faile

BLAST FROM THE PAST

A black and white photograph of a human skeleton sitting in a military flight simulator cockpit. The skeleton is wearing a flight suit with a harness and is positioned as if ready for flight. The cockpit is filled with various instruments, dials, and control panels. The background shows a door with a window. The entire scene is framed by a rough, hand-drawn style border.

EXCUSE ME, SIR.
IS THIS TEST GOING TO
TAKE MUCH LONGER?

THIS IS A B-52 STRATOFORTRESS. THE BOEING COMPANY TRANSFORMED AN AIR FORCE VISION... "TO BE CAPABLE OF CARRYING OUT THE STRATEGIC MISSION WITHOUT DEPENDENCE UPON ADVANCED AND INTERMEDIATE BOMBS CONTROLLED BY OTHER COUNTRIES..." INTO A GRAND TOTAL OF 743 B-52s. SINCE THE AIR FORCE RECEIVED ITS FIRST "BUFF" IN 1955, THESE SUPER, LONG RANGE BOMBERS AND THEIR CREWS HAVE CONTRIBUTED IMMEASURABLY TO THE PEACE AND SECURITY OF OUR NATION. THIS "G-MODEL," THE SEVENTH OF EIGHT INCREASINGLY MORE CAPABLE MODELS OF B-52s AND ONE OF 193 B-52Gs DELIVERED BETWEEN 1955 AND 1981, WAS OPERATIONAL FOR OVER 80 YEARS. ON ALERT, BOTH IN THE AIR AND ON THE GROUND, RESOLUTE AND READY, IT SERVED AS A PRIME DETERRENT AGAINST NUCLEAR AGGRESSION DURING THE LONG YEARS OF THE COLD WAR. B-52s ALSO CARRIED THE FIGHT TO THE ENEMY IN SOUTHEAST ASIA AND, DURING THE 1991 GULF WAR, HELPED BREAK THE BACK OF IRAQI INDUSTRY AND ITS GROUND FORCES. NO LONGER ON DAILY NUCLEAR ALERT, THE B-52 WILL CONTINUE TO PROVIDE COMBAT POWER FOR AMERICA AND AIR COMBAT COMMAND WELL INTO THE 21st CENTURY.

STATISTICS

BUILDER	BOEING
ENGINES	PRATT & WHITNEY J57-P-43WB
MAX THRUST	103,000 POUNDS
LENGTH	157.6 FEET
WING SPAN	185 FEET
MAX TAKEOFF WEIGHT	488,000 POUNDS
MAX AIRSPEED	850 MPH
CEILING	60,000 FEET
UNREFUELED RANGE	7,600 MILES
ARMAMENT	GUNS: 4-50CAL M-2
	MAXIMUM BOMB LOAD: 60,000 POUNDS
	MISSILES (AS PART OF MAXIMUM BOMB LOAD):
	UP TO 4 ADM-20 QUAILS
	2 AGM-28 HOUND DOGS
	UP TO 20 AGM-89 BRAM
	UP TO 20 AGM-86B ALCMs
	UP TO 8 AGM-84 HARPOONS