Compatible Contraction of the Co Air Combat Command's Safety Magazine

SEAT BELT **Saves Mother's Life**

Jan / Feb 2007

HELMETS Safety on the Slopes

DECONFLICTION **Avoiding Midair Collisions**

Combat Edge Volume 15 Issue 8, ACC SP 91-1







GENERAL RONALD E. KEYS, COMMANDER COLONEL BILLY J. GILSTRAP, DIRECTOR OF SAFETY

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Safety is About You!

Air Combat Command finished FY06 with the best Class A safety record in the 26 year combined history of ACC and TAC. FY06 is the fifth straight year with ZERO Class A weapons mishaps, and Class A flight and ground mishaps were down 67 and 30 percent respectively from FY05. This clearly demonstrates all of <u>you</u> are focused on the right things, are looking out for each other, and are standing up for what is right.

Our "Wingmen," "101 Critical Days of Summer," and all-terrain vehicle and motorcycle mentorship programs are just a few of the numerous ACC efforts to emphasize the importance of safety. Our dedicated safety officers and NCOs are trained to identify and mitigate potentially unsafe conditions. We perform mishap investigations that seek to identify causes in an effort to prevent future mishaps and unit evaluations to ensure compliance with safety directives. These programs won't work without <u>you</u> and me though ... it is our responsibility.

We continue to emphasize the importance of Leadership, Risk Management, and Accountability in both our operational and personal lives. Each one of <u>you</u> fills a vital role. <u>You</u> and <u>you</u> alone decide not to take unnecessary risks in all of your daily duties and activities. With all of the available programs and processes to enhance safety, it is still <u>you</u> who make the decisions to be safe. <u>You</u> decide to follow established procedures and avoid the temptation to take shortcuts. <u>You</u> decide to

wear your Personal Protective Equipment and <u>you</u> decide when to Knock-It-Off when things don't look right. I need you to step in as a good Leader or Wingman to take control of an unsafe situation, on or off duty.

As we start off this New Year, I applaud each of <u>you</u> for your demonstrated safety vigilance and mission focus. Let's continue those good decisions and rising to the challenge of being involved Leaders and Wingmen.



General Ronald E. Keys ACC Commander



by WgCdr Greg Wilson, Langley AFB, Va.



ith the arrival of winter, thoughts of many turn to planning the next ski

trip. The Air Force is fortunate enough to have bases located in many prime locations with close proximity to some of America's best snowfields. Among our servicemen and women, sports such as skiing and snowboarding are extremely popular and participation rates are growing every year.

Working here at the Office of the Command Surgeon, Air Combat Command, I've had the recent misfortune of having to medically disqualify two promising young aviators because of head injuries sustained during last year's ski season. This brings me to the subject of this article – helmet use in snow sports.

Other than in formal competitions, there are no laws which require the mandatory use of helmets for skiing or snowboarding. In actual fact, the effectiveness of helmets in recreational snow sports is not without controversy. While it appears common sense that wearing a helmet will reduce the risk of head injuries, detractors often state that a helmet increases the likelihood that the user will undertake high-risk behavior because of a sense of invulnerability. They also decree that no helmet offers adequate protection from high-speed collisions with stationary objects such as trees and lift pylons. If you hit one of those at 50 mph, you'll probably be toast anyway.

However, the focus of this article is not on preventing catastrophic head injuries but on reducing the severity and consequences of more minor ones. In this respect the evidence is less controversial. At low-to-moderate impact speeds, the energy absorbing qualities of a modern ski-helmet have been proven to reduce severity of injury. Decreasing the severity of head injuries not only leads to a better clinical outcome, but reducing the classification of a head injury results in less onerous administrative consequences as well. This is particularly the case as far as Air Force medical standards are concerned. The following case will illustrate this point:

Capt Salomon (name changed to protect privacy) is a young fighter pilot assigned to an ACC base near the Rocky Mountains. He has over 500 flying hours in type and was on the fast track for proficiency upgrades. In February 2006 he was skiing alone in a wooded area when he crashed. It is not known exactly what happened or whether he was knocked unconscious since he has no recollection of the incident and there were no witnesses to see him fall.

Eventually he was able to get himself together and skied out into the main trail area where passing skiers summoned the ski patrol. When the patrol arrived, Capt Salomon was confused, agitated, and combative. He had bruising and swelling to his right temporal area. The ski patrol transferred him by air ambulance to a local emergency department where he underwent numerous tests and observations. A brain scan cleared him of fractures and internal bleeding but did reveal a diffuse blunt injury pattern to his brain. Brooks City-Base for an in-depth review and consideration of return to flying status. After considering all available information, Capt Salomon's head injury was reclassified from severe to moderate since the original brain scan was thought to have been misinterpreted. That was the good news. The bad news was that neuro-psychological testing by the ACS revealed some than 1 hour vs. almost 24 hours and not affect his neuropsychological scores, his injury would have been classified as mild instead of moderate. Mild head injury only requires 1 month of grounding and observation compared to 6-24 months for a moderate injury.

In conclusion, the choice whether or not to wear a helmet on the slopes remains up to you as an individual. While



(See AFI 48-123 for more information on "Minimum Observation Periods and Evaluation Requirements" and "Head Injury Classifications.")

Capt Salomon continued to suffer amnesia, and it took him almost a day to regain his memory and orientation. He was discharged after 5 days in the hospital. In accordance with Air Force medical guidelines and based upon the duration of amnesia and findings on his brain scan, Capt Salomon's diagnosis was classified as a "severe head injury."

The local flight surgeon initially grounded Capt Salomon for 6 months, as required by Air Force instructions. During that time, he performed Duties Not Including Flying (DNIF) at his squadron. He was then sent to the Aeromedical Consultation Service (ACS) at subtle deficits. In the presence of these findings, even a moderate head injury requires a 2-year grounding. He was PCS'd out of his flying squadron to a desk job. He can reapply for a waiver in 2008.

So the unanswered question is whether a ski-helmet would have prevented this pilot from being medically disqualified for flying and putting his career into a holding pattern for 2 or more years.

There is no definitive answer to this question. However, the likely answer in this case is yes. If a helmet had absorbed enough force to reduce his Post-Traumatic Amnesia (PTA) to less a seemingly minor knock to the head may not leave you with any permanent disability, it may have an adverse impact on your Air Force medical status. Aircrew, special duty personnel, and members on PRP status are particularly vulnerable to these stringent medical standards, but we are all affected to various degrees. So use your head on your next ski trip and choose to wear a helmet.

Wing Commander Greg Wilson is an Australian Air Force exchange Flight Surgeon working for the Command Surgeon, Air Combat Command, as Deputy Chief of Flight Medicine, Safety, and Human Performance.





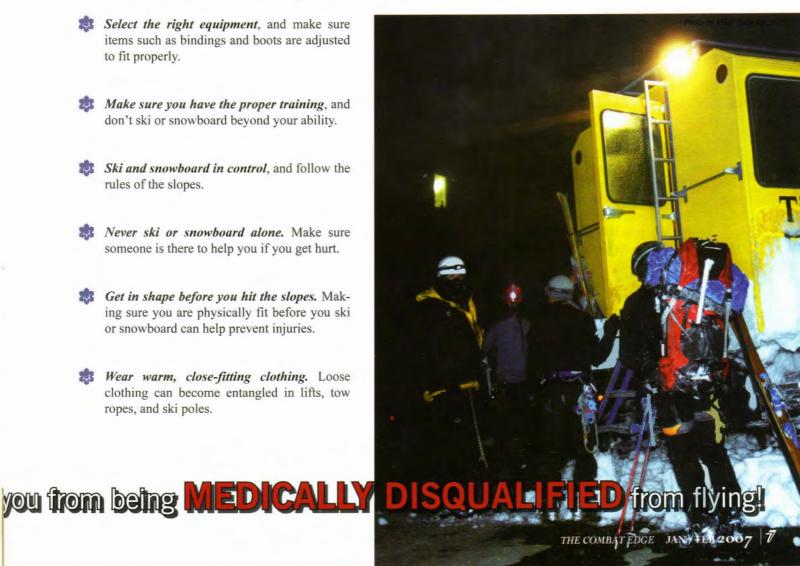
Courtesy of the U.S. Consumer Product Safety Commission

This fact sheet provides tips on how to prevent accidents when skiing or snowboarding, and how to protect yourself from serious injury if you do get into an accident. By taking these simple precautions, you can help make your next trip to the slopes a fun and safe one.

The U.S. Consumer Product Safety Commission (CPSC) recommends that skiers and snowboarders wear helmets to help prevent head injuries from falls and collisions. In a recent study, the CPSC concluded that helmet use by skiers and snowboarders could prevent or reduce the severity of 44 percent of head injuries to adults, and 53 percent of head injuries to children under the age of 15. The CPSC study estimates that 7,700 head injuries -- including 2,600 head injuries to children -- could be prevented or reduced in severity each year by using skiing or snowboarding helmets. The study also shows that helmet use could prevent about 11 skiing and snowboarding-related deaths annually.

In addition to wearing helmets specifically designed for skiing or snowboarding, the CPSC recommends these safety tips:

- Select the right equipment, and make sure items such as bindings and boots are adjusted to fit properly.
- Make sure you have the proper training, and don't ski or snowboard beyond your ability.
 - Ski and snowboard in control, and follow the rules of the slopes.
- Never ski or snowboard alone. Make sure someone is there to help you if you get hurt.
- Get in shape before you hit the slopes. Making sure you are physically fit before you ski or snowboard can help prevent injuries.
 - Wear warm, close-fitting clothing. Loose clothing can become entangled in lifts, tow ropes, and ski poles.



by Lt Col Sam Shaneyfelt, Eglin AFB, Fla.

ny good fighter pilot story starts with "There I was ...," so There I was, doing mission prep for a simple two-ship red air sortie for the 3rd Wing's operational readiness inspection. Our Eielson F-16s were fragged as the second two-ship with a tanker to support several "vuls" (vulnerability periods for air defense coverage) for the Elmendorf Eagles. The brief was straight forward, but something made me pay more than lip service to the Air Force Instructiondriven subjects to include emphasis on spatial D. Not sure why because the weather was forecast not to be an issue; high thin cirrus and scattered clouds in the 20 to 30,000 foot block.

I took off as RACK 01 and rejoined my wingman. As I did, the words of my Director of Operations were echoing in my skull, "... and don't land late, we've stretched the day out long enough and maintenance needs the jets back on time." OK, simple sortie (actually a "yawner"): fight-tank-fight and get the F-16s back on time. No problem.

Flying south out of Fairbanks, Alaska, towards Denali, Alaska, in the late afternoon sun, the weather picture was slightly different than the forecast. The preceding flight reported that the overcast extended from 7 to 10,000 feet up to 35,000-plus feet. With plenty of room to work underneath, I began checking into Stony airspace, pulling my wingman into close and took vectors from Anchorage Center to descend to Visual Meteorological Conditions (VMC).

Our Blue Air adversaries checked in and we proceeded to rage around the Alaska Range, playing MiG-29 Fulcrums for 30 minutes. Then it was the rejoin down a bit. This "milk-bowl" effect caused me to feel the "giant han l" on my skull several times, so realled out hight parameters to my wingman often enough to try to keep our skulls caged.

I let RACK 02 take on gas first since he was approaching bingo. When I came off the boom, I pulled over to bose route formation on his right side (both of us on the right side of the tanker). This is a fairly standard practice, but it



time to hit the tanker. I checked out and went south to get gas, which is where the fun started

The in-cloud visibility was barely a mile at best and caused me to slow is a bit awkward for the wingman, who is concerned with keeping track of the tanker (on the left) and simultaneously rejoining me (on the right). Due to the extended time in the Air Refueling (AR) track, we were running about 5 minutes behind schedule, but now was not the time to rush things.

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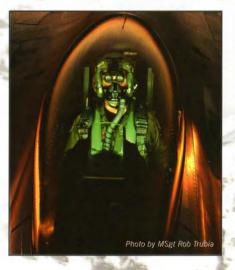
I started a climb to the top of the AR block and leveled off with RACK 02 in close for the instrument meteorological condition descent. The "milk bowl" had not gotten any befter. As I turned back north and started the descent, I kept a close eye on my wingman, who now started to stack high on my left wing. Initially, he was just a bit higher than normal, but then he made an abrupt move up. I could see more of the belly of he giper than the rest of him! In fact, I could barely see the visor on his helmet as he peered over the canopy rail!

At this point two things were clear: one of us was screwed up and it wasn't me. I can clearly remember the bone-headed call I made on the radio, "Dude! Do you have spatial D or what!" RACK 02's response was immediate (key the mic), "... pfthe ... uhh ... yeah!" Then he banked/pushed straight into ME! Since this is the action portion of the story: "There I was ...," 20,000 feet at 0.8 mach looking at a face full of jet screaming at me from slightly more than close formation.

Since I still had my camera on, I could verify that I pushed forward to negative 1.8 Gs and simultaneously lit the afterburner. I was thinking, "This is going to hurt," while at the same time straining against the harness straps to lean forward as far as they would allow and bracing for impact.

Amazingly, he missed. As he reappeared on my right, I immediately gave him the lead, started calling out parameters, and called for a recovery on the round dials. He recovered without any other incident, and I directed him to continue the descent to VMC to re-cage his skull.

Instead of knocking-it-off for the day and climbing back up into the soup, I thought it best to fight the second vul and then return to base. This would give my wingman a chance to have a clear horizon and pull some G's to reset his brain/body. The adversaries needed us for a few minutes longer than planned, but I thought this too would help. I decided I could make up the time difference on the way home to Eielson.



The climb out back through the schmeeze (French for bad weather) in radar trail was uneventful until I realized that the wind had shifted. I had no gas left to push it up and make up the time difference back to Eielson ... "don't land late." Well, I had no choice in the matter now.

Eielson's runway is unique in many ways. It's over 14,000 feet long (trust

me you need it when the runway condition reading hits less than 10), has no overruns, and widens from south to north. One runway is 150 feet wide at the approach end and the other is 300 feet wide. Upon landing to the south on the wider one, I kept my speed up to the end in a vain attempt to make up the time I had lost. I won't pretend that I wasn't still thinking about how to debrief my wingman on our near-death experience. As the runway narrowed to the south, I attempted to take the shortest route to de-arm and lost track of the taxi lines. In fact, the taxi lines at the approach end of the narrower runway are misleading enough to have caused two of us in the past year (I was the second) to be confused.

I cut the turn early, inside of what I thought was the taxi centerline, but too late to see the 12-inch tall blue taxi light right in my way. I slammed on the brakes, but was going too fast to turn abruptly or stop in time. Approaching the light, there was no point in braking anymore so I let off. I didn't feel a thing as I passed it and thought "don't look back, you missed it." I was wrong of course. Looking back over my shoulder, there was the light, shattered into a million blue glass pieces.

So, what lessons did I learn? After my perceived heroic act of saving two jets from a spatial D incident, I put on the size 18-inch shoes and became the star of my own clown act. Where did I go wrong? I was in unfamiliar territery; we don't often land on the south runway. I never should have attempted to leave the runway without being show enough to avoid an obstacle by turning or stopping, Finally, I had all of about 5 minutes left in the sortie to get the jet parked without incident, and I let up too soon. Never let up on safety until the throttles are off and you're securely in the chocks.

ATIS contains information that **EVERY AVIATOR** needs to be aware of! ost aviators are familiar with the Automatic Terminal Information System (ATIS), but are you familiar with the technique of listening to ATIS just for the weather and the alphabetic identifier? It's a bad technique and it could easily lead to an aircraft mishap.

As a T-37 Instructor Pilot (IP), I was able to instruct student pilots in all aspects of aviation, including the seemingly minor detail of listening to ATIS. Occasionally a student would



demonstrate his/her technique for ATIS by listening to the recorded information solely for the identifier. In one instance a student heard the following, "Columbus Air Force Base Information Bravo..." and abruptly switched the frequency. I asked him what the weather, winds, landing runway, and new Notice to Aimen were, and he stated that they were PROBABLY the same as when we took off. I pointed out that the identifier on ATIS at takeoff was Alpha, so something had been updated. We listened to the entire ATIS broadcast and found nothing significant had changed.

You might be questioning the significance of this article. Everything worked out, so why highlight something that is not a big deal? Here's the problem: someone taught this student that the only thing he needed was the alphabetic identifier. Maybe he thought he would save time by not listening to the entire ATIS recording. Why would I stress the importance of ATIS when other IPs glossed over it? The reason is simple: ATIS contains information that every aviator needs to be aware of.

I learned my lesson while flying an E-3 into Tinker AFB. We were landing at night after a 10-hour sortie. I



tuned in the ATIS frequency and heard that the weather was great, Tinker was landing runway 17, and then I promptly turned the radio back to the controlling agency. We had been briefed at Base Operations that nothing unusual was planned for that day and the Supervisor of Flying had no words for us. It had been a long mission and everyone was ready to get home. I flew an instrument approach to a full-stop landing. After taxiing clear of the runway I noticed a construction barrier ahead of me on the taxiway. I asked tower about it and they informed me that I was on a closed taxiway and I should have exited the runway at a different point, AS

STATED ON ATIS! I wanted to melt into my seat and disappear. The taxiway was too narrow to do a U-turn at night, so I queried the control tower about my options and they contacted base operations. After a long delay, a base ops truck met us and removed the construction barriers. I was instructed to continue taxiing since the work was completed and the pavement was now dry. I continued to the parking area without further incident.

by Maj Kevin Penrod, Barksdale AFB, La.

This incident has a happy ending, but it could have easily been an unhap-



py one. The worst thing that happened to me was that I kept the crew on the jet for a long time while base ops cleared the construction equipment. I felt like crap and I was given the proper amount of ridicule by my buds, but what if ATIS had stated that the runway had a large hole in it? Since it was dark, I would not have seen a problem with the runway until it was too late and the aircraft could have been destroyed. What if ATIS had stated that the first 2,000 feet of the runway were closed? Again, I may not have known anything was wrong until it was too late. I learned a valuable lesson that night: Listen to all of ATIS!

A Picture is W

Courtesy Photo

orth

by SSgt E. Nifong-Velazquez, Barksdale AFB, La.

The morning of Nov 28, 2005 started out like any other Monday morning in a small Alabama town. Even the weather said it was a Monday as it was a rainy, dreary day. The individual I am telling you about fed their cat, turned off the lights at home, grabbed their lunch, and headed toward their Sports Utility Vehicle (SUV) to go to work. It had been raining all morning, so the roads were slick and the ground was well saturated and softened by the rainwater. This person was traveling on a 35 mph road, had the windshield wipers and headlights on, and was rounding a corner when they noticed a car in the oncoming lane swerve into their lane. The SUV driver turned to the left to avoid a head-on collision, but started to hydroplane. The car in the other lane could not stop in time either, and they collided.

The SUV rolled nearly three times, coming to rest on its left side in a field next to the road. The individual was in and out of c o n sciousness praying for help, thinking of their family, remembering the last thing they said to their spouse, the thoughts coming and going as if they were in a dream; in bits and pieces.

The individual I am writing about is my mother. One of the Emergency Medical Service (EMS) members recognized my mother, (he and I graduated from the same high school, and called out to her, "Mrs. Nifong, we are going to get you out!" My mother, a petite 57-year-old woman, could hear him, but everything sounded muffled. She lay there, pinned in the vehicle while EMS and the Fire Department tried to get her out of the SUV. All she could say was "Call my son, call my son." Luckily, my little brother hadn't left his house yet, so he wasn't far away when he headed to the accident scene.

The EMS and firefighters couldn't reach my mother through the SUV's doors, and had to use the "Jaws of Life" to cut open the roof of the SUV. Once they cut off the top, they had to cut her out of her seat belt as well. My brother arrived at the accident scene and got out of his truck. The rain drops felt like drops of lead shot hitting him when he caught a glimpse of the SUV and my mother on a gurney, and he ran over to where they were loading my mother into a waiting ambulance. When I met with him later that night, he whispered to me, "She was screaming ... when they moved her into the ambulance ... I will never forget her screams."

My dad had been living in Cocoa Beach, and working at the Kennedy Space Center in Cape Canaveral, but would fly home to Alabama on long weekends and holidays. I was working in the Wing Safety Office when he called me on my cell phone. After I answered, all I can remember is him saying is, "Mom has been in an accident ..." It's the call no one wants to get, and it's the call I still have nightmares about. At that point I became very emotional; all I could think of was getting to her, as my dad was at least 11 hours away, my older sister was in Alaska. I wasn't sure if my little brother was with her, and I was over 7 hours away. Despite being 8 months pregnant, and having been told by my doctor just 2 days prior to stay in the area and not travel, my mind was made up. I was leaving, and that was the only thing on my mind; getting to her. My supervisor notified my husband, who is active duty as well, of what had happened, and in over 3 hours we were headed to Alabama. The drive was long and quiet.

Once my mother arrived and was seen at the local hospital Emergency Room, my brother was informed that due to her injuries, our mother had been flown via "Life Flight" to a major medical center in Birmingham. Her injuries consist-

Photo by MS&t Jack Braden

arrived at the hospital, he was notified that our mother had flat-lined three times while in flight, but that she had survived the transport flight and was undergoing surgery.

I arrived at the hospital and tried to hold back the tears as my brother told me about my mother's accident and her condition. By the time our father arrived, our mother was out of surgery and in the Surgical Intensive Care Unit. Her nurse told me that God must have had plans for her, because of the severity of her injuries, she shouldn't have survived. Later, when her doctor came to speak to us, he related that if any one of the safety devices (seat belt or airbag) in her SUV had

failed, she would not have lived through the accident to reach the hospital.

My mother began to recover, and spent 10 days in the hospital. The whole time she was in the hospital, she voiced her determination to make it to my little brother's graduation and commissioning ceremony. True to her word, seated in the front row of the auditorium, with a walker beside her, my little brother kneeled down so she could pin on his 2nd Lieutenant bars.

I wrote this in hopes that I can make you think twice, or better yet, save a life. My job is to remind people to be safe, to think before they act, and provide advice on how to keep themselves and their loved ones safe and sound. Before my mother's accident, I would brief the newcomers,



and other groups of people on wearing their seat belts and the proper your loved ones, family, friends, and coworkers as well. Since her accident, my mother has been admitted twice for further complications due to her injuries. My father resigned from his job at Kennedy Space Center to take care of her, as she can no longer work, walks with a cane, and can only hold her new grandson for 10 minutes at a time. But because she took the time to buckle her seat belt before leaving for work, she's still alive and a part of my life and my children's lives. My mother's experience has shown me that traffic accidents can occur at anytime, without notice, and change your whole life; so if you won't wear your seat belt for your own sake, wear it for someone you love.

use of Personal Protective Equipment. I hate to admit it now, but I was sometimes guilty of "going through the motions" when it came to briefing personal safety and the importance of seat belt use during those briefings and my lack of enthusiasm probably showed. I now have a firsthand account and knowledge of how important it is that people wear their seat belts, which makes me a better briefer and helps to get the point across to my audience.

Remember, your choice to wear your seat belt when you drive doesn't just affect you; it affects the lives of

Critical Days of Summer REVIEW

by MSgt Michael Walter, Langley AFB, Va.

irmen Supporting Airmen and Wingman programs continue to be successful formulas in Air Combat Command's (ACC's) mishap prevention strategy. For the second straight year, ACC has successfully reduced its fatal mishaps from the previous year; this year by 33 percent (six in FY05 as compared to four in FY06.) Additionally, ACC did not experience a single fatal mishap during all three major holiday weekends: Memorial Day, 4th of July, or Labor Day. Since ACC's inception in 1992, the number of Class A mishaps experienced during the "101 Critical Days of Summer" has been reduced from 20 in 1992 to just four in 2006, an 80 percent reduction!

While our reduced fatal numbers are certainly a reason to celebrate, regrettably, we still lost four members of our ACC family. Three of these fatal mishaps were the result of poor decision making, lack of personal discipline, and failure to follow sound risk management practices -- concepts that are continually emphasized to us throughout the year. These same contributing factors have plagued the Air Force and ACC as a whole for years. Other commonalities include driving at excessive speeds, drinking and driving, driving while fatigued, and failure to use seat belts. Of the four fatalities, three of the members were under the age of 26; three of the mishaps involved the use of sport utility vehicles; and one mishap involved a motorcycle. It should also be noted that while not fatal, one Airman lost a foot in a motorcycle mishap and one lost a finger while boating.

Our command's successful campaign resulted from the hard work of many units and many ideas. One continuing success story is the "Airmen Supporting Airmen" theme that has been used over the past two campaigns. Used in conjunction with existing "Wingman" programs, the support our Airmen are giving each other is worthy of mentioning. Combined, these two programs have reduced fatal mishaps for the 26-and-under age group by 63 percent since the summer of 2004.

Another success story is a process owned by 8th Air Force. As opposed to the traditional "101 Critical Days of Summer" theme, 8th Air Force orchestrated a 180-day campaign which focused on leadership, accountability, and training. Their efforts resulted in a second straight year without a fatality involving non-seat belt use or alcohol use.

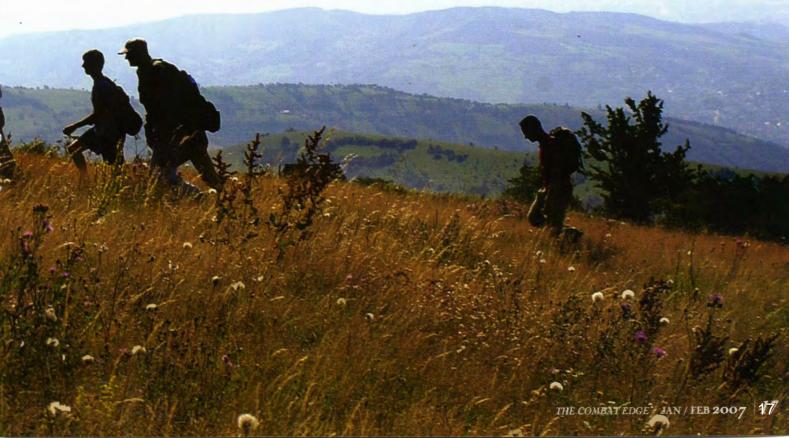
Other success stories include units such as 5 BW, 20 FW, 27 FW, and 55 WG. These units managed to reduce their "101 Critical Days of Summer" mishaps by more than 50 percent.

Finally, several units used competitions to achieve their ultimate goal of zero fatalities. Categories included slogans, participation in "101 Critical Days of Summer" events, and units owning up to a safety subject for the month and promoting it base-wide. These units realized what total involvement can achieve — fewer mishaps!

We also learned some things that did not work so well. One specific issue mentioned by more than one unit was the "safety fair" concept. In the words of one unit, "Our numbers were not as high as we would have liked," and in the words of another unit, "The safety fair concept has been overused." Feedback gathered during the events indicated that unit personnel wanted more active involvement versus something static.

There were many successful strategies used by our units during the "101 Critical Days of Summer." There was not one specific magic bullet that was key to mishap prevention; it was a combination of many things, all crucial for a successful campaign — it was Leadership, Active Involvement, Planning, Competition, and Attitude that helped save lives.

MSgt Walter is the NCOIC, Air Combat Command Ground Safety Programs Analysis



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he USAF is losing too many aircraft and pilots to midair collision because we are using an outdated ele-

ment deconfliction plan. We've always told the yielding fighter "don't hit your element mate," and that's a good thing. Unfortunately, we tell the fighter with right of way to "trust your wingman," when we should be telling him/her to "trust, but verify." This small change could greatly reduce our midair collisions, while increasing our mission performance.

liction

For this discussion we'll take a quick look at fighter history to see how we arrived at the current plan and why it needs modification. Then we'll look at some of the reasons we might resist making a change for the better. Next, we'll look at the proposed modification and its implementation. Lastly, we'll cover the conclusion and recommendations.

Cedux

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by Lt Col John Sellers, Langley AFB, Va.

"IT'S NO LONGER GOOD ENOUGH FOR THE FLIGHT LEAD OR ENGAGED FIGHTER TO MERELY FOCUS ON THE BANDIT AND TRUST THE WINGMAN - HE SHOULD TRUST, BUT VERIFY."

History

If we examine our mindset regarding the difference between the two members of a paired fighter element, we've always had a "mission accomplishment" pilot, and an "assist and protect" pilot. In World War I, the flight lead engaged the bandit, while the wingman flew in the fighting wing position to assist and protect by ensuring that no other bandit rolled in unobserved on the flight lead. In World War II, airplanes carried radios that allowed pilots to fly a more flexible line-abreast formation, permitting the more offensive pilot to call "engaged" and take the "mission accomplishment" role. The other "free fighter" would generally zoom up above the fight to assist and protect his mate by looking for other bandits. This plan survived the advent of stern-only missiles, but

all-aspect missiles drove a change around 1990. One fighter still engages, just like always, but the current, high-tech missiles are now pulling the other fighter into the maneuvering engagement. We try to retain the "protect and assist" mindset, but this now includes defending against the bandit's all-aspect missiles, maneuvering to kill the bandit with our own all-aspect missiles, and maintaining element de-

confliction. Realizing the "free fighter" was no longer free, we changed the name to "support fighter."

The development of all-aspect missiles and the resulting change in tactics have increased the wingman's workload immensely, while at the same time, vastly increasing the conflict between element members by drawing the support fighter into the swirling fight. It's little wonder that wingmen occasionally reach overload and swap paint with their element mate. It's no longer good enough for the flight lead or engaged fighter to merely focus on the bandit and trust the wingman - he should trust, but verify. This change has the potential to reduce midair collisions by up to 75 percent. Unfortunately, this change might never occur.

Resistance to Change

There are many reasons people resist change - even a beneficial one. We'll briefly cover just four. First, momentum is difficult to overcome: the more people who believe an idea and the longer that belief is held, the more comfortable we become in doing things in the same routine, predictable manner. Second, we might not see the need for change if we only look at the impact it has on us as individuals. Not seeing the big picture, we may not recognize the positive impact of the change on the organization as a whole. Thus we may find the change disruptive and totally unnecessary. "If it ain't broke, why fix it?" Third, we may fear that the change could potentially make our jobs harder. Fourth, we tend to fear the unknown: we may resist change simply because it



is something unfamiliar. Not knowing much about the specifics of the change, we worry that the proposed change might actually make things worse!

All these reasons form a huge barrier to the adoption of a better deconfliction plan. So many pilots have used the current plan for so long that the momentum, alone, might be enough to crush any attempt at change. We accept that flying is inherently dangerous, and we're comfortable with our current plan, believing occasional collisions to be an unavoidable cost of business.

If you look only at your own odds of becoming a midair statistic, you might conclude that deconfliction is not a problem. However, if you expand your view to include your circle of friends, the odds are good that someone you know will be in a collision. Three of my friends have been in collisions and one has a street named for him in Kadena. Expanding to an even wider view, in the 10 years I've been trying to raise awareness of this problem, 52 USAF aircraft have collided — over two squadrons of jets!

Some pilots might fear that strengthening our deconfliction contract would necessarily detract from our ability to accomplish our mission. This fear is unfounded. Safety is generally concerned with things we want to avoid (don't hit the ground, don't hit another jet, or don't run out of gas), whereas mission tasks are about things we want to accomplish. It is usually much easier to avoid something than to accomplish something. It only takes a second to check on your altitude, wingman, or gas

> gauge. The vast majority of your time can normally be spent on mission tasks. So, it's a bad assumption that steps taken to ensure safety will generate a high work load or interfere with mission accomplishment.

Pilots may also fear that adding even minor deconfliction responsibilities to the pilot with right of way will somehow subtract responsibility from the yielding pilot. This false assumption might be

caused by the way we typically brief deconfliction. The discussion generally centers on determining who should be responsible, and there the discussion abruptly ends. It would be much better if, instead of identifying who's responsible and who's not, we identified who should have right of way, and who should yield. Then the discussion could move on to identify the specific responsibilities of each job and provide instructional techniques on what each pilot should do. There is no need to argue about the percentage by which each pilot is responsible for deconfliction. The yielding fighter should maintain safe separation 100 percent of the time. The fighter with right of way, by verifying the wingman's adherence to the deconfliction plan, is also prepared



to take evasive action to avoid collision 100 percent of the time.

Element Deconfliction Contract

It might surprise many readers to realize, as noted in a recent midair report, that there is no one source document that combines all the requirements of a formation contract. All that currently exists is a culture of assumptions, and bits and pieces strewn about in various regulations. The following is intended both as a change, and as a clear written statement of the deconfliction differences between the pilots in an element:

An **ELEMENT** will always clearly establish a yielding pilot, and a pilot with right of way. This contract is in force at all times, unless the element is split.

The yielding pilot must:

1. Maintain SA on wingman.

2. Yield to maintain safe separation.

- **The pilot with right of way must:** *1. Maintain SA on wingman.*
- Verify the wingman yields.

3. Take evasive action if he/she doesn't.

Resistance to this plan is likely to center on the requirement for the pilot

with right of way to maintain Situational Awareness (SA) on the wingman. None of the other bullets are likely to cause heartburn. The duties of the yielding fighter are the same as they've always been. As for the pilot with right of way, it's easy to detect a zero-line-of-sight collision course, and instinctive to take evasive action; but only if you see it coming!

The following paragraphs will show how painless it is to maintain SA on your wingman. The intent is to instruct and to alleviate fear that the proposed plan signals the end of tactical aviation as we currently know it. To the contrary, the same increased SA that will reduce accidents will increase tactical mutual support and mission effectiveness.

Let's look at the visual crosscheck for the pilot with right of way starting with static formation flight, and progressing to more dynamic and potentially dangerous maneuvering situations. If you're leading a formation in non-maneuvering flight, you are free to setup a relatively leisurely cross-check at your own convenience. If you're preparing to turn, or change formation, or call for a rejoin, or anything else that upsets the status quo, you're creating a dynamic situation with the possibility for lethal closure. Before doing any of these things, you must verify that your wingman is looking at you and hacking the program. You should continue to cross-check at an increased frequency until resuming static flight.

Dynamic situations often arise during tactical intercepts. Again, you should cross-check your wingman any time the status quo changes. If your wingman cranks or notches, you should increase your cross-check frequency and adjust your heading to help maintain visual (within radar gimbal limits). Continue cross-checking at increased frequency until the formation stabilizes. Your wingman should do the same for you.

Moving onto offensive ACM, let's say you're the engaged fighter. In the vast majority of cases, you and your wingman will establish different turn circles. If your wingman's turn circle is north of yours, then north is your potential midair heading and also the direction to look for the visual. So, as you chug around the circle, glance up for a second to locate your wingman before you get to a north heading. If the fight continues for two circles before you kill the bandit, then you've cross-checked your wingman twice. Follow a similar strategy if your wingman exits the fight. If he/she is out to the south, look for the visual as you turn through south, using the Air-to-Air (A/A) Tactical Air Navigation (TACAN), datalink, or radio to help keep SA. If your wingman has arced around and calls in from the west, then west is the new midair heading and the place to check for visual. A quick look at your wingman won't affect your Basic Fighter Maneuvers (BFM) any more than a glance at the altimeter or the fuel gauge.

If you're defensive, maintaining SA ought to be easy because your wingman should roll in behind the bandit ---right into your field of view. If he/she doesn't show up there in a reasonable amount of time, then mutual support might be breaking down with detrimental impact on tactics and safety. It's definitely worth a radio call to find out what's going on.

In the vast majority of cases, it's fairly easy to maintain SA on your wingman if you follow the techniques above. However, rare situations can arise where it becomes difficult or almost impossible to maintain SA. Aircraft systems failure, bad visibility conditions or sun angles, and just plain task saturation come to mind. I have no problem knocking-it-off (KIO) every hundredth engagement if it means I'll live to fly again. Our training rules say that we should KIO for a breakdown of SA or if a dangerous situation is developing, and that's a judgment call we all have to make for ourselves.

Conclusion

So ... We can keep things as they are. We can say the pilot with right of way has no deconfliction responsibilities. We can say he/she doesn't have to maintain SA on his/her wingman. We can declare that this is an exception to our visual mutual support contract. We can declare that this is an exception to the general rule that safety is our top priority. We can make this exception even though we know that midair collision is one of the top killers of pilots and destroyers of jets. Then we can continue not to teach the visual crosscheck techniques I've briefly discussed. We can continue to teach pilots that it's not possible to fly sound BFM and keep track of any other aircraft but the bandit you're currently task-saturated upon. We can teach this even though we know that we might find ourselves 1v2 in actual combat. We can teach it even though we know that our training rules allow eight jets in a turning fight. We can continue to teach this same plan that has permitted multiple annual collisions.

Or ... We can change our plan for the better. We can say that the pilot with right of way does have some deconfliction responsibilities. We can say that he/she should maintain SA on his/ her wingman. We can say that safety is

always first priority. We can hold to our principles of mutual support. We can teach pilots the techniques to multitask, and to fly their best BFM while keeping track of one or even several other jets as need arises. We can use our additional SA to reduce accident rates as well as to make better tactical decisions. As fighter aircraft become more capable, expensive, and less numerous, and as the time and expense to train qualified pilots continues to increase, we can ill-afford to lose these national assets to preventable training accidents. By adopting a deconfliction plan based upon mutual support instead of the current "tag you're it" plan, we can save over two squadrons of fighters in the next 10 years.

Recommendations

To young pilots, I challenge you to use the techniques covered in this article to prove to yourself that it's not too difficult to maintain SA on your wingman, even when you're the engaged fighter. To senior USAF leaders, I propose a plan that is consistent with recommendations from several recent safety boards. The powerful roadblocks to change may overcome attempts to implement this reform at the tactical level. The revised deconfliction plan should be considered for incorporation into AETC and ACC training publications, and brought to the field as part of cockpit resource management and Weapons School roadshows.

CLASS C

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refueling mishaps.

		EN YEAR M	IDAIR LO	OK
	Type on Type Air Force Incidents			
		CLASS A	CLASS B	CL
	A-10	2	1	
	F-15	5	0	
	F-16	11	2	
	TOTAL	18	3	
	*84 total Air Force incidents to include 35 refueling			

MONTHLY AWARD WINNERS



A B-52 taxied to the north hammer head prior to take-off. While parked on the hammer head, the aircrew radioed in with a forward battery "end of life" light illuminated. A1C Burns quickly responded and waited while the crew chiefs chocked the aircraft. Once the aircraft was cleared for maintenance, A1C Burns ran to the #1 wheel well where he discovered the forward battery was in a dangerous thermal-run-away condition. Thermal runaway is caused when a battery begins to overheat causing its internal resistance to increase. As the resistance goes up, it heats the battery even more resulting in an even higher resistance. This can quickly cause the battery to explode. A1C Burns immediately recognized the danger and directed the aircrew to egress the aircraft. As the aircrew

abandoned the aircraft, A1C Burns swiftly donned his safety equipment. Now wearing appropriate protection, he expertly and quickly disconnected and removed the battery. Knowing that the battery could explode and fatally wound any personnel within a 50-foot area, he removed the 200+ degree swelling unit and carried the 85-pound battery 150 feet in the opposite direction from the crew egressing their aircraft. His actions prevented potential aircraft damage or personnel injuries from an exploding battery. A1C Burns' expert system knowledge, decisive action, and selfless dedication to the mission safeguarded the lives of the six highly-trained flight crew members and prevented damage to a combat asset valued at over \$74 million.

> A1C Lawrence M. Burns 2nd Aircraft Maintenance Squadron 2nd Bomb Wing Barksdale AFB, La.



Award of Distinction

t Lisowski flew his first ever night combat sortie over the historic Hindu-Kush mountain range in Northeastern Afghanistan with peaks reaching 24,000 feet. The weather forecast called for a broken ceiling at 22,000 feet, moon illumination of zero, and thunderstorms building over the mountains. He calculated a target area minimum safe altitude of 20,000 feet MSL and developed a plan for the best possible escape route. While searching for enemy forces using his Targeting Pod, his master caution light illuminated. A quick scan inside revealed his left engine was winding back. Losing airspeed and altitude due to the decreased thrust, Lt Lisowski immediately turned southeast toward his only escape route from the high terrain, the Asadabad Valley near the Pakistani border. Simultaneously, he selected the override position on his engine fuel flow switches and jettisoned his external ordnance. With his most critical tasks completed and his aircraft under control, Lt Lisowski analyzed the situation further and confirmed a left engine compressor stall. He applied the appropriate emergency action procedures and shut the failed motor down before it degenerated into a more serious problem. It was during this

descent and checklist application that he discovered a thunderstorm blocking his path to the Asadabad Valley. Because of the terrain around him, he had no other choice but to penetrate the thunderstorm. He entered the storm and expertly maintained aircraft control despite numerous close range lightning strikes and Saint Elmo's fire enveloping the jet. He emerged 3 minutes later in the valley then used night vision goggles and map reading to navigate around the mountains and thunderstorms that lay en route to base. He ultimately executed a flawless single-engine approach and landing to end this eventful combat

sortie. Lt Lisowski's outstanding mission planning, poised task management, timely emergency-action procedures, and remarkable aviation skills during a difficult emergency situation under extraordinary circumstances prevented the loss of a valuable USAF asset during combat operations.



1Lt Neil D. Lisowski 75th Fighter Squadron 23rd Fighter Group Pope AFB, N.C.



Sgt Ortiz distinguished herself in the area of Weapons Her duties include, among others, Stockpile Safety. Surveillance Crew Chief, Munitions Inspector, and Flight Ground and Weapons Safety Monitor. SSgt Ortiz was performing a shipping inspection on 12 sticks of unserviceable commercial dynamite. Due to the hazardous nature of these items, she decided to open the outer packing container to verify proper packaging prior to shipment, although not required for this inspection. During the inspection, she identified the ends of two sticks were discolored and soft. According to the item Technical Order, this is a major defect and if left uncorrected, the dynamite could become more unstable and be upgraded to a critical defect. She stopped the operation and immediately sought disposition from the Senior Munitions Inspector who confirmed her discovery. She consulted with the dynamite Equipment Specialist and determined the assets were too hazardous to ship. Explosives Ordinance Disposal responded and destroyed the assets. SSgt Ortiz's keen eye and attention to detail averted a potential catastrophic event by preventing extremely hazardous materials from entering the civil transpor-

tation system, ensuring the continued safety of Offutt AFB and the public. SSgt Ortiz displayed the essence of a true Weapons Safety Professional and represents the values of the AMMO community.



SSgt Annella M. Ortiz 55th Maintenance Squadron 55th Wing Offutt AFB, Neb.



he 29th Training Systems Squadron (TSS) is tasked to provide testing and certification of Aircrew Training devices worldwide for the Combat Air Forces. The unit manages over 15 unique safety programs. The unit's hard work paid off when they earned the 53 WG/CC's 101 Critical Days of Summer Commander's Safety Cup Challenge for the second straight year ... #1 out of 46 wing units. During this 3-month effort, unit members created 25 safety briefings which significantly increased squadron and base safety awareness. Additionally, they led the way by producing 10 base-wide safety events for all Eglin AFB personnel and families to attend. These events required robust coordination with base Public Affairs, base and local print media, law enforcement, and subject matter experts. These base-wide safety seminars were a resounding success and included: Mothers Against Drunk Drivers (MADD) briefing which was mandatory for all 53 WG assigned personnel; child car seat inspections with local law enforcement; fire house safety using a smokehouse training simulator on location;

boating inspections conducted by US Coast Guard officials; bicycle safety and with free child helmets passed out by base law enforcement; and lawn mower, jet ski, driving, generator, and chainsaw safety. The 29 TSS also developed and conducted seasonal safety briefings during Commander's Calls and weekly roll call meetings. These safety briefings identified seasonal hazards and discussed ways to reduce their impact on personnel. The 29 TSS provided the local community with CPR training classes, suicide prevention briefings, and a Labor Day safety briefing. They also created a mentorship

program for unit high-risk activity participants. This "benchmark" program utilizes subject matter specialists to provide "safety leadership" within their areas of expertise.



29th Training Systems Squadron 53rd Wing Eglin AFB, Fla.

MONTHLY AWARD WINNERS



aj Peck and Capt Colson were flying a routine T-38 training mission under visual meteorological conditions. After performing a touch and go on Rwy 15 at Beale AFB, the Front Cockpit (FCP) transferred control to the Rear Cockpit (RCP) at approximately 300' and 300 kts. Shortly after transfer of aircraft control, a loud bang was heard by both pilots along the right side of the aircraft. The aircraft slightly yawed to the right. The FCP announced a bird had struck the aircraft on the right side by the AOA vane. The RCP continued with a vector away from the ground and performed an initial scan of the engine instruments which revealed the No. 2 engine gas temperature (EGT) had spiked to 800 degrees centigrade. The RCP immediately brought the right throttle for the No. 2 engine to idle (within 2 seconds of hearing the loud bang) while the left throttle was left in military power. The right engine EGT stabilized within limits with the right throttle in idle. The aircraft responded normally to all control inputs and a quick visual scan of the top and sides of the aircraft revealed no visible damage to the airframe. The right throttle

remained in idle per the checklist and was not touched in order to prevent the possibility of further damage to the engine. During the downwind portion of the pattern, the RCP declared an emergency with the control tower. The RCP also notified the Supervisor of Flying. The crew then completed all remaining checklists to include single-engine (ERASSE) items, normal pattern and landing checklist. The RCP executed a flawless single-engine straight-in approach while the FCP closely monitored the No. 2 engine instruments. After clearing the runway, the aircraft was shut down normally on the taxiway and inspected. A close inspection of the right side of the aircraft revealed bird strike damage to the fuselage forward of the intake along with significant damage to the right engine eighth stage compressor. The quick analysis and action by the crew to the compressor stall on the No. 2 engine prevented a flameout and further damage to the engine from high EGT. This allowed continued but degraded operation of the engine for completion of the single-engine pattern and landing. Their outstanding crew coordination, aviation skill, and calm under pressure allowed the crew to recover from a critical, life-threatening emergency with no injury or further damage.

> Maj Brian Peck Capt Michael Colson 1st Reconnaissance Squadron 9th Reconnaissance Wing Beale AFB, Calif.



ACC Safety Salutes Superior Performance

EIGHTH AIR FORCE

5th Maint Sq Propulsion Flight 5th Bomb Wing Minot AFB, N.D.

Capt Benjamin S. Gallagher Chief, Flight Safety 5th Bomb Wing Minot AFB, N.D.

Mr. Daniel J. Heald Safety and Occupational Health Spec. 5th Bomb Wing Minot AFB, N.D.

> TSgt Donald J. Bausman Weapons Safety Manager 5th Bomb Wing Minot AFB, N.D.

NINTH AIR FORCE

TSgt Christopher D. Hood Armament Systems Craftsman 4th Equipment Maintenance Sq 4th Fighter Wing Seymour Johnson AFB, N.C. SrA Tylor J. Kearney Weapons Load Crew Member 33rd Aircraft Maintenance Sq 33rd Fighter Wing Eglin AFB, Fla.

Mr. James S. Carter Unit Safety Representative 20th Equipment Maintenance Sq 20th Fighter Wing Shaw AFB, S.C.

SSgt David A. Feehan Munitions Systems Craftsman 332nd Expeditionary Maintenance Sq Balad AB, Iraq

TWELFTH AIR FORCE

TSgt Eric Romere SSgt Kevin Bisaillon SSgt Marty Watson Test Cell Engine Run Crew 7th Component Maintenance Sq 7th Bomb Wing Dyess AFB, Texas

> A1C Terrence S. Bradley Armament Team Member 7th Munitions Squadron 7th Bomb Wing Dyess AFB, Texas

TSgt John R. Henze Safety and Environmental Rep 366th Component Maintenance Sq 366th Fighter Wing Mt Home AFB, Idaho

> MSgt Edward L. Story, Jr. Chief, Weapons Safety 27th Fighter Wing Cannon AFB, N.M.

Maj John T. Orchard Maj Lance Hobson F-15E Instructors 17th Weapons Squadron

Nellis AFB, Nev.

HARDISON

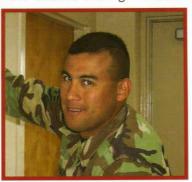
QUARTERLY AWARD WINNERS



s Additional Duty Weapons Safety Manager, SSgt Cavazos totally revamped the weapons safety program management book and performed a multitude of spot inspections ensuring strict adherence to all weapons safety directives. His tireless efforts were directly responsible for the 86 FWS receiving an "Outstanding" rating during the 53rd Wing's annual weapons safety inspection. While serving in the enormously important capacity as Precision-Guided Munitions (PGM) Evaluator, SSgt Cavazos was personally responsible for the safe and successful execution of all munitions storage area buildup and delivery operations during four highly complex A/G WSEP assessments. His phenomenal endeavors ensured the safety of 550 maintenance personnel, supporting 55 fighter aircraft, flying 260 combat training sorties, employing 223 PGMs valued in excess of \$13.1M. He also promoted the safe transport and delivery of more than 50 tons of support equipment used during munitions buildup operations. His astute observations during A/G WSEPs 06-10, 06-11, 06-13, and 06-14 prompted

immediate submission of seven deficiency reports on munitions components that failed functional testing. He authored these comprehensive reports on two live AGM-65 missiles, four separate enhanced GBU-15 components, and one GBU-24 guidance control unit to improve overall safety and reliability of these lethal weapon systems. Additionally, Sgt Cavazos also conducted several in-depth weapons safety in-briefings to 138 deployed unit munitions personnel upon arrival for recent A/G WSEP assessments. These detailed briefings included:

explosive operations duties, flight line delivery of munitions, explosive transportation routes, and proper storage of explosive components. He also familiarized deployed Airmen on specific dangers unique to Hill AFB, Utah.



SSgt Rene Cavazos 86th Fighter Weapons Squadron 53rd Wing Eglin AFB, Fla.



r. Gregoire's safety leadership earned his squadron the #1 ranking out of 46 wing units for the second straight year winning the 53rd Wing Commander's 2006 Safety Cup Challenge! During this 3-month effort, squadron members created 25 safety briefings which immeasurably increased squadron and base safety awareness during the period. In addition, the squadron led the way by producing 10 base-wide safety events for all Eglin AFB personnel and families to attend — all focused on the goal of zero mishaps! These base-wide safety seminars were a resounding success and included: Mothers Against Drunk Drivers briefing, child car seat inspections, fire house safety using a smokehouse training simulator on location, boating inspections conducted by US Coast Guard officials, bicycle safety with free child helmets passed out by base law enforcement, and lawn mower, jet ski, driving, generator, and chainsaw safety. Mr. Gregoire personally conducted five of these events, including

four for the base-wide audience. He also revised the squadron Fire, Safety, and Health training support training guide, the squadron emergency evacuation checklist, conducted all the safety briefs for new squadron personnel to include the new Sq/ CC and DO, and updated all safety forms for the squadron. He also prepared 2 Det/OLS for tri-annual safety inspection with both units receiving an "Excellent" rating. He demonstrates

his commitment to safety off duty while serving as a professor at Embry-Riddle University, where he teaches a current aviation safety-related course.



Mr. James L. Gregoire 29th Training Systems Squadron 53rd Wing Eglin AFB, Fla.



sing his maintenance expertise and safety acumen, MSgt Bates identified and then mitigated the risks for over \$2B in 27th Fighter Wing assets. MSgt Bates' actions have been particularly important to mishap prevention and education of assigned pilots as well as local civilian flyers. He personally organized MidAir Collision Avoidance (MACA) briefings for USAF Academy gliders and Soaring Society of America events at Hobbs, New Mexico. He revitalized Cannon's Hazardous Air Traffic Reporting (HATR) procedures and revamped Cannon's MACA pamphlet before distributing to local airfields. He was instrumental in educating F-16 pilots regarding the benefit of the Traffic alert and Collision Avoidance System (TCAS) on commercial aircraft that operate above the local airspace. The results: ZERO MACA/TCAS/HATR events. MSgt Bates minimized the impact on flying operations through his detailed work in the airfield's runway rubber removal process. He guaranteed Operation NOBLE EAGLE mission readiness/success by overseeing the proper positioning/painting of alert aircraft parking spots. His exceptional professionalism

resulted in "Zero Findings" and "Best Seen to Date" comments from the HHQ evaluation team during two recent inspections. He was also singled out as an "Outstanding Performer" and earned several flight safety "Commendables" with his mishap response kits, spot inspection tracking program, integration with the Intermediate Level Jet Engine Shop, and Bird Aircraft Strike Hazard program. He garnered unbudgeted funds for the purchase of additional bird scare cannons and placed them on the airfield in anticipation of the migratory bird season. He coordinated with the U.S. Department of Agriculture and New Mexico Fish and Game to ensure wildlife policies were correctly

enforced and that Cannon attained the proper depredation permits. He led the Bird Depredation Team on three highly successful outings. His overall efforts reduced bird strikes by an amazing 28 percent.



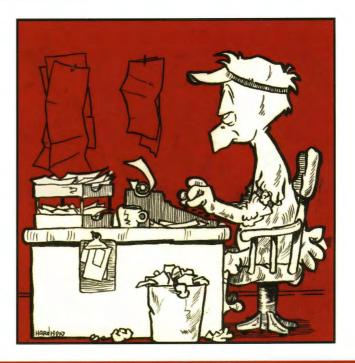
MSgt Curtis Bates 27th Fighter Wing Cannon AFB, N.M.

SEND US YOUR STORIES!

on't be afraid to tell it like it really happened. You get more points for spreading the word than you lose by admitting to an error. Tell the reader why you think you made a mistake. Give a good reason and let us do the rest! No one has ever gotten into trouble by writing an article for **THE COMBAT EDGE**.

E-mail: acc.sem@langley.af.mil or Fax: DSN 574-8975, Comm (757) 764-8975, Attn: Maj Brad Robinson

Or send a letter to: **THE COMBAT EDGE** HQ ACC/SEM, Attn: Maj Brad Robinson 175 Sweeney Blvd Langley AFB VA 23665-2700 Telephone: DSN 574-8868, Comm (757) 764-8868



FY06 Aircraft As of October 31, 2006			
	Fatal	Aircraft Destroyed	Aircraft Damaged
6.AF			
9 A.F			*
12 AF			
AWFC			
ANG			
(ACC-gained)		And the second second	
AFRC			
(ACC-gained			

FY06 Ground As of October 31, 200			
	Fatal	Class A	Class B
8 AF		0	2
9 AF		1	0
12 AF	**	3	0
DRU's		0	0

= Fatal

= Fatal due to misconduct

FY06 Weapons		As of October 31, 2006	
	Class A	Class B	
8 AF	0	0	
9 AF	0	0	
12 AF	0	0	
AWFC	0	0	

Legend

Class A - Permanent Total Disability; Property Damage \$1,000,000 or more Class B - Permanent Partial Disability: Property Damage between \$200,000 and \$1,000,000

- Class C Lost Workday; Property Damage between \$20,000 and \$200,000
 - Non-rate Producing

Aircraft Notes

ACC had no Class A mishaps in November. We wrapped up a record year in FY 06 -- but a close look at bottom line causes is revealing. Aviators plan for missions with inexperienced wingmen, copilots, or crewmembers, and hence, fly with potential mitigating measures in mind. But how do we prepare differently to fly with experienced aviators? Many of our recent mishaps have included evaluators, instructors, and experienced wingmen as part of the crew. We are good at focusing on inexperience, but need to continue to address the potential for complacency and habit pattern interruption with all our aircrews. Know your limits as an instructor or an evaluator and continue to apply the basics of good CRM with experienced crews. Fly Safe!

Ground Notes

ACC experienced two Class A mishaps in November. The first was an engine FOD and the second was a PMV4 mishap. Both are currently under investigation. Continuted emphasis on Wingmanship and Personal Risk Management must remain at the forefront of our actions.

Weapons Notes

Another good month for weapons safety from a statistical standpoint! However, as we've said so many times before, we must not let our guard down because we still have plenty of room for improvement. While we did not experience a mishap this month, when we do, the most common cause continues to be not following technical data. We cannot allow any explosive operation to be conducted without following technical data or we will invariably experience a mishap. So, it seems rather simple, ensure technical data is followed for all explosive operations and weapons mishap numbers will fall drastically. More importantly, we will better protect our Airmen and resources required to perform our assigned missions. Use every resource possible to ensure explosive operations at your location are always performed in accordance with technical data.

Symbols for Mishap Aircraft





BASKETBALL Injury Prevention

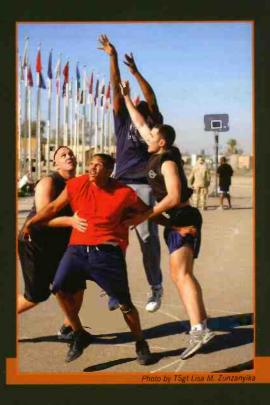
Public Safety Business Center, Fort Bragg, N.C.

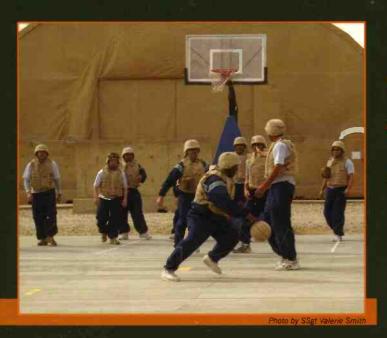
A conditioning program with emphasis on aerobic and muscular fitness training should be implemented prior to the beginning of basketball season.

Begin gradually participating in activities specific to basketball, such as motor skill components of fitness: jumping (rope skipping) and agility/coordination/balance drills. This mode of training will strengthen the connective tissue (muscle, bones, ligaments, and tendons) which will assist the body in accommodating to physical stress. These exercises will also assist with neuromuscular coordination, the ability to integrate the senses – sight, sound, and proprioceptive (knowing the position of your body in space) – with motor function to produce smooth, accurate, and skilled movement.

Add ankle, shin (anterior tibialis), and soleus strengthening exercises to the basic lower extremity muscular fitness exercise program.

Participate daily in a complete body stretching program.





- Remember to warm-up and stretch at least 5 10 minutes before participating in a basketball activity.
- A continued maintenance program throughout the season would also help prevent injuries.
- Contact a local trainer for additional information on basketball conditioning. Many facilities provide safety/injury prevention information to coaches, players, and officials regarding preparation, conditioning, and proper training and playing techniques.

NOTE: Prior injury to the body predisposes one to re-injury of that particular extremity.