FEBRUARY 1996
ACC SP 91-1 VOLUME 4 ISSUE 9

FEATURES

4 A COMMANDER'S VIEW OF SAFETY
Brigadier General David L. Young
Commander, 2d Bomb Wing
Barksdale AFB LA

30 SQUADRON COMMANDER'S THOUGHTS
FROM THE FRONT
There are many flight safety lessons that come from combat operations, and
perhaps there is no time like the present to put those thoughts down in the hope
that they may help someone else in the future.

DEPARTMENTS

GROUND SAFETY 17 28
WEAPONS SAFETY 26
DEBRIEF 22
ACC ANNUAL AWARDS 10
AWARDS 18 24
ACCOLADES 9

ABOUT THE COVER
This month's cover is an electronic
generated composition by Sgt Mark Bailey
featuring the 2d Bomb Wing from
Barksdale AFB LA. See page 4 to read
what Brig. Gen. David L. Young has to
say in his article "A Commander's View
of Safety."
It's February, the holidays are long past and we've all, more or less, settled back into our normal routines. In recent issues we made a big push for safe holidays and added caution for our first days back on the job. Last month we emphasized preventing mishaps due to a lack of proficiency — as we all get a bit rusty after a long layoff.

Now the winter doldrums provide plenty of potential for complacency to set in. We're in the middle of the winter "dark ages" where depression, malaise, and give-a-care attitudes can take hold of us. Don't let them. Be aware of what's going on around you and stay focused on your job. We also need to be alert for the signs of attitude shifts in our friends, co-workers, and subordinates. "We Care" should be more than the title of one of our important people programs. It should be a cultural attitude that encompasses all of us and permeates everything we do. A caring positive attitude will beat the winter blues.

February is a great month to pull out the summaries of past Safety Days, review the lessons recorded there, and start preparing for the May Safety Day. Take a look around at your unit's operations; whether you fly jets, maintain them or work in supply, fire protection, admin, or security police there are things you can do better and safer. Are we putting those past Safety Day insights to use or are we still using old information and repetitive platitudes? Are we doing things because they make sense or just because we've always done them a certain way for a long time?

How do you expect your unit to fare this year in the ground safety area? We all know who has had mishaps in the past — the next person who will be involved in an off-duty mishap will be between 18 and 22 with either alcohol, excessive speed or non-use of seat belts being a factor in the mishap. So what are you doing to prevent this mishap?

February is notorious for its bad weather. Now is the time to put into practice all of the appropriate bad weather techniques and procedures that you may have just been thinking about up to this point. Don't let the gloomy, overcast days, dark skies, snow, rain and sleet get you down. The good news — spring will soon be here. Remember, as Mark Twain said, "It is better to be careful a hundred times than to get killed once."

Colonel Zak Tomczak
Chief of Safety
"Houston, We have a problem!" Those words marked the turning point of an otherwise uneventful mission of Apollo 13. I reflected on those words as I rushed to the command post after being told one of our airborne B-52H aircraft just had two engines drop off the wing. The sequence of events in response to this Class "A" proved hauntingly similar to how NASA dealt with their own crises in space.

Fortunately, the outcome of the B-52 crew was the same as it was for Jim Lovell's team — everyone made it back safely. Let me tell you a little bit about the recovery and then explain how it ties into how I view safety as the commander of a bomb wing with global responsibilities.

The Mishap

While Forest Gump was quick to point out "life is like a box of chocolates," a wing commander would point out that life resembles a soldier's walk through a minefield. The 2d Bomb Wing experiences several inflight emergencies (IFEs) weekly, but any sense of the routine quickly evaporated when I learned two engines had ripped off this B-52 during an initial climbout from Barksdale. My initial concern was for the aircrew and I quickly said a prayer. As I stepped into the command post, a short status briefing comforted me when I found out the aircrew was safely holding east of the field at 10,000 feet, cleaning up their checklists and flightsuits.

From the initial fire indications to the separation of engines three and four, it only took five minutes and the aircrew really had to use every skill they had. A key element during this critical time, was the fact that they always flew their aircraft and didn't
let the circumstances get the better of them.

Little was known at this point as to the condition of the aircraft. The aircrew gave the command post their status as they had time. They still had cockpit fire indications, but what was left of the engine strut appeared to be under control with no visible flames. My next concern was to bring the aircrew home, my second prayer.

While the initial status of the aircraft was garnered, the battle staff was recalled. This team is modeled after NASA's mission control and their role would be instrumental in orchestrating the support the aircrew needed. Everyone's first goal was to stabilize the situation and get a plan together. Darkness was quickly approaching and forward thinking addressed the need to assess the structural damage and lower the flaps. Let's get a chase ship.

A B-52 instructor pilot in a T-38 trainer carefully examined the wings and flap areas. Boeing, from those findings, recommended the flaps be lowered in increments in case there was any damage we couldn't see. This went uneventful. Out of gas and out of daylight the chase ship recovered.

Over the next two hours, our instructors and Boeing's experts examined how this B-52's configuration affected its approach and landing qualities. Live Mk-82s in the bomb bay and the loss of one half the braking authority created other potential problems. Safe jettison was ruled out, so a recovery was planned with the weapons. At normal traffic pattern gross weights and all of our checklists done it was time for the re-entry. One last controllability check was accomplished by the aircrew followed by their approach. The third prayer — bring them in safely.

Voices on radios became the telemetry of NASA's consoles. "He's rolled out on final...normal glide path...on centerline." So far, so good! "He's started his power reduction...ah...he's...he's...he's going around!" What happened? Another voice — "He didn't like what he saw." OK, let's see if there's anything we can do for him. "No he's fine and wants to try again." OK, folks let's reset. This time everything went uneventful and the crew landed safely and egressed. The final prayer — thanks. What can we learn from this mishap and how the 2d Bomb Wing handled the emergency?

**Key Observations**

The successful handling of a life threatening mishap starts with planning and preparation. The 2d Bomb Wing had a good mishap response plan, but several unforeseen events were not covered. I imagine other units will experience the similar unknowns that create difficult problems. The key is not to address every possible contingent on paper, but to form a foundation of knowledgeable people who can successfully handle problems during emergencies. This can't be done through reading and signing off something. Mishap and emergency response demands practice and refinement.

Training aircrews is a crucial cornerstone to any flying mission. The 2d Bomb Wing's mission is one of power projection through the employment of both nuclear and conventional bombs. In addition to this, the B-52 is a standoff missile carrier with weapons that include both the nuclear and
conventional cruise missiles, the harpoon missile and the AGM-142. Barksdale is the largest bomber base in the world with 3 active duty flying squadrons and support for two more reserve flying squadrons (in total more than 70 aircraft). We can perform strikes anywhere in the world, in poor weather, day or night and on very short notice. It's hard to imagine, but we routinely fly missions that last more than 30 hours. Just a few years ago, our mission was primarily one of nuclear deterrence, but with the end of the cold war it expanded with equal measure to conventional. With so many demanding roles it might be easy to forget safety, but not in the 2d Bomb Wing.

Safety starts in the 11th Bomb Squadron, our initial B-52 flight training squadron. Undergraduate students and upgrades are taught from day one what the crew concept is and throughout this demanding course, case studies teach valuable lessons from previous mishaps. Currently, Barksdale only has one weapons system trainer, but we use every ounce of this simulator to show emergency conditions to crews. Sometimes the simulator scenarios exceed the aircrews abilities, but the crew always walks away with a lesson and a keen insight on how to improve their crew resource management and aviator skills.

While the basic combat capabilities are taught by the 11th, two operational squadrons, the 20th and the 96th take the metal to the target. Their mission training includes several deployments to overseas locations and several state-side exercises. To accomplish this, we use spin-ups to emphasize theater peculiarities while honing skills and confidence so we can concentrate on the mission-at-hand. With a brief picture of our operational units, another important safety ingredient is the staff that supports them.

The battle staff concept is a holdover from the old SAC days, but is constantly being improved with new communication equipment and computers. One thing that hasn't changed is the role people play. The
battle staff can be thought of as a crisis management team that frequently plans and exercises. This hard work pays off during an actual emergency. Each critical wing and base function is represented, bringing our full resources to bear on a problem. For instance, the need for immediate medical care can be discussed with the chief medical officer prior to a plane landing. If he or she identifies a shortfall in moving patients to the hospital, transportation is there to offer additional resources. The fire department may add important safety guidelines for both organizations prior to everyone marshaling their troops to respond.

In the case of this stricken B-52, our immediate concerns were to provide any assistance or advice to the aircrew trying to stabilize their situation. The battle staff's instructor pilot orchestrated calls to Boeing and examined the imbalance created by the loss of engines. To make the approach and landing as normal as possible, the crew decided to lower the flaps, the staff was right there to coordinate a chase aircraft and feed information to Boeing's engineers and then the recommended techniques to work our way from one configuration into another.

Though the press is quick to point out the B-52's inability to fuel dump, it gave us valuable time to ensure everything was in place on the ground. With no rush, we burned sound reasoning into our plans not rashness. The crew thoroughly discussed their observations with FTU experts and Boeing. These instructor's instructors formulated and simulated plans well before the crew would experience the actual approach and landing. Simulation allowed dry-runs and scenarios to be played out sometimes with disastrous results. Learning what worked in the simulator helped us avoid fatal mistakes. During the simulations, instructors moved wingtank fuel around to create weight compensations which were then used by the aircrew, but the aerodynamic effects could only be guessed.

The existence of unknown variables brings up how important resourceful people are to handling a mishap. A simulation model is only as good as what's programmed. In the case of the B-52 simulator, there are no provisions for battle damage or aerodynamic modeling of missing parts. Fully aware of this limitation, the aircrew acted as test pilots in that last 100 feet above the ground. During the first landing attempt, the aircraft became dynamic and drifted away from centerline. The crew wisely took the aircraft around for a second attempt.

As a commander, it's important that I let each individual, on our base, know safety enhances our mission and doesn't hinder it. I view myself as the number one safety officer in the wing — everyone knows that.

Again, ideas flashed across the country from Barksdale to Oklahoma, "This time let's try full rudder during the power reduction." As the aircrew made their second attempt, all eyes focused on the telecast in the command post. Finally, a success and one more Class "A" mishap went into the history books as non-fatal.

The history books contain essential information. One thing we didn't have that night was a historical perspective of simi-
lar mishaps. Seldom does anything happen to the B-52 that hasn’t appeared before. This mishap had at least three historical smoking guns. One even dealt with loss of an engine pod. Fortunately, none of us were flying when that ancient one occurred, but we are all capable of reading about it. A good knowledge of the past and a mishap database capable of cross-referencing malfunctions should be a goal of every wing safety program. An example of how this might work is through a database computer program with the categories of propulsion, flight controls and fuels. A key word search using the term “loss” might reveal 17 hits under propulsion, 30 under flight controls and 1 under fuels. Eventually, this would lead to “loss of number 3 engine pod, 1969” and a brief abstract of the event. The database goal should be a quick reference during emergencies when time is valuable. Preparing aircrews and staffs for mishaps isn’t my only concern.

As a commander, it’s important that I let each individual, on our base, know safety enhances our mission and doesn’t hinder it. I view myself as the number one safety officer in the wing — everyone knows that. With over 7 deployments, 10 large exercises, and several inspections a year, a “just do it” attitude can crop up. To prevent this mindset in a high operations tempo, a commander needs to establish a trust with his team. I feel it’s absolutely essential in our global mission that an individual feels comfortable in making the decision to throttle-back if he or she feels safety will be compromised or unacceptable risks are involved. Many of the space program’s finest saw glaring safety deficiencies just before the Challenger accident, just as the Air Force’s finest might see today. Today is the best time to fix’em...not tomorrow! Things that seem expensive now come only to be a fraction of the total price in lives and resources when a mishap occurs. Not only is this true for machines and operations, but for people too.

There are several examples in World War II where soldiers literally wasted away and died from stress not a wound from the enemy. Admiral McCain, who served under Admiral Halsey, is a good example of someone burning-out. A commander needs a way to measure the pressure points and understand how to get the mission done while taking care of his people.

The We Care and Care on Target programs are good examples of how quality initiatives can be used to trend how people’s morale is holding up, but nothing can take the place of knowing your people and being part of their daily lives. One barometer is whether the wing socializes and supports each other during off-duty hours. If a picnic is arranged and only a few show up, it could be the result of poor scheduling or an indicator of people’s stress. Most wings also have people performing support TDYs to distant lands. Were they remembered during the holidays and were their families offered a chance to be with our remaining families? The Air Force has agencies like Family Support for just those occasions, but a squadron friend may be just what someone really needs.

**Conclusion**

The triumph of Apollo 13 wasn’t just the result of probability or luck, but of a systematic process where highly gifted and trained professionals, with faith, beat the odds and brought back a crew. NASA did everything they could to shape the outcome — training, fine-tuned command and control and leaders who knew how to listen and implement the best ideas. The successful recovery of a 2d Bomb Wing aircrew and aircraft was also a team effort. The superb airmanship displayed by the aircrew and the outstanding support was the result of preparations, superb training, and the active safety program that entrusts each individual in the 2d Bomb Wing. With the best Air Force people, a commander needs to ensure they are not pushed beyond their capabilities. Leadership must participate in the day-to-day lives of our Air Force people not stand in their way, but ensure the mission is accomplished with the benefits that safety provides.
QUESTIONS OR COMMENTS CONCERNING DATA ON THIS PAGE SHOULD BE ADDRESSED TO HQ ACC/SEF, DSN: 574-7031

<table>
<thead>
<tr>
<th>CLASS A MISHAPS</th>
<th>TOTAL</th>
<th>ACC</th>
<th>ANG</th>
<th>AFR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DEC</td>
<td>THRU DEC FY96</td>
<td>THRU DEC FY96</td>
<td>THRU DEC FY96</td>
</tr>
<tr>
<td></td>
<td>FY96</td>
<td>FY95</td>
<td>FY96</td>
<td>FY95</td>
</tr>
<tr>
<td>CLASS A MISHAPS</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>AIRCREW FATALITIES</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>* IN THE ENVELOPE EJECTIONS</td>
<td>0</td>
<td>2/0</td>
<td>1/0</td>
<td>0</td>
</tr>
<tr>
<td>* OUT OF ENVELOPE EJECTIONS</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

* (SUCCESSFUL/UNSUCCESSFUL)

CLASS A Mishap Comparison Rate

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

<table>
<thead>
<tr>
<th>MONTH</th>
<th>ACC</th>
<th>8 AF</th>
<th>9 AF</th>
<th>12 AF</th>
<th>DRU</th>
<th>ANG</th>
<th>AFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>OCT</td>
<td>2.1</td>
<td>1.1</td>
<td>0.7</td>
<td>0.6</td>
<td>0.9</td>
<td>1.6</td>
<td>1.8</td>
</tr>
<tr>
<td>NOV</td>
<td>1.0</td>
<td>0.7</td>
<td>0.7</td>
<td>0.6</td>
<td>1.6</td>
<td>1.6</td>
<td>1.6</td>
</tr>
<tr>
<td>DEC</td>
<td>2.3</td>
<td>2.0</td>
<td>1.7</td>
<td>1.4</td>
<td>1.2</td>
<td>2.3</td>
<td>1.8</td>
</tr>
<tr>
<td>JAN</td>
<td>2.6</td>
<td>2.1</td>
<td>2.6</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>FEB</td>
<td>2.6</td>
<td>2.4</td>
<td>2.4</td>
<td>2.1</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>MAR</td>
<td>2.4</td>
<td>2.6</td>
<td>2.6</td>
<td>2.1</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>APR</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
<td>2.1</td>
<td>2.4</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>MAY</td>
<td>1.5</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>JUN</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>JUL</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>AUG</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>SEP</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
<td>1.8</td>
</tr>
</tbody>
</table>

(BASED ON PROGRAMED HOURS FLOWN)
SUSTAINED SUPERIOR PERFORMANCE AWARD

TSgt Travis D. Travis
727 ACS (T), 505 CCEG, Hurlbert Field FL

Honors an individual for sustained superior performance.

DISTINGUISHED CHIEF OF SAFETY AWARD

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

Recognizes a Chief of Safety for significant contributions to intermediate headquarters, unit, ACC, or USAF mishap prevention program (excludes NAF's and Sectors).
SAFETY OFFICE OF THE YEAR AWARD - CATEGORY I

314 AW, Little Rock AFB AR

Recognizes a DRU/wing/group safety office for the most effective overall safety program.

DISTINGUISHED PILOT SAFETY AWARD

Capt Roy V. Qualls
27 FS, 1 FW, Langley AFB VA

Recognizes the outstanding pilot of the monthly award winners from the previous fiscal year.

DISTINGUISHED AIRCREW SAFETY AWARD

Capt Thomas M. Williams, Capt Joseph A. Debosky, 1Lt Joseph M. Accardo, 1Lt Timothy F. Giras, MSgt Michael Hust, TSgt Michael J. Leftwich, SSgt Nathaniel Thomas, SrA Robert E. Clare, SrA Charles S. Turman, SrA Scott W. Griffin
42 ACCS, 355 WG, Davis-Monthan AFB AZ

Recognizes the outstanding aircrew of the monthly award winners from the previous fiscal year.

SAFETY OFFICE OF THE YEAR AWARD - CATEGORY II

388 FW, Hill AFB UT

Recognizes a DRU/wing/group safety office for the most effective overall safety program.
OUTSTANDING ACHIEVEMENT SAFETY AWARD

7 WG, Dyess AFB TX
314 AW, Little Rock AFB AR

Recognizes units undergoing special activities other than operational mission accomplishments.

DISTINGUISHED FLIGHT SAFETY OFFICER AWARD

Capt Patrick T. Sullivan
62 AS, 314 AW, Little Rock AFB AR

Recognizes a person for significant contributions to an established unit, intermediate headquarters, ACC, or USAF flight safety program.

DISTINGUISHED FLIGHT SAFETY NCO AWARD

MSgt Logan A. Tierney
509 BW, Whiteman AFB MO

Recognizes a person for significant contributions to an established unit, intermediate headquarters, ACC, or USAF flight safety program.

ANNUAL UNIT GROUND SAFETY AWARD - CATEGORY I

314 AW, Little Rock AFB AR

Recognizes a host unit with an exceptional ground safety mishap prevention program.
OUTSTANDING UNIT WEAPONS SAFETY AWARD - CATEGORY II

436 TS, 7 WG, Dyess AFB TX

Recognizes a tenant unit with an effective program to prevent weapons mishaps.

DISTINGUISHED CREW CHIEF OF THE YEAR AWARD

TSgt Scott A. Benson, TSgt Mark R. Wheeler
114 FG, Sioux Falls SD

Recognizes the outstanding crew chiefs of the monthly award winner from the previous fiscal year.

DISTINGUISHED FLIGHTLINE SAFETY ACHIEVEMENT AWARD

MSGt Howard G. Baker
38 RS, 55 WG, Offutt AFB NE

Recognizes the outstanding individual of the monthly Flightline Safety Award of Distinction winners from the previous fiscal year.

ANNUAL UNIT GROUND SAFETY AWARD CATEGORY II

552 ACW, Tinker AFB OK

Recognizes a tenant unit with an exceptional ground safety mishap prevention program.
ANNUAL TRAFFIC SAFETY AWARD - CATEGORY I

347 WG, Moody AFB GA

Recognizes a host unit with an effective traffic safety program.

DISTINGUISHED GROUND SAFETY ACHIEVEMENT AWARD

MSgt John Kendall
5 MSX, 55 WG, Offutt AFB NE

Recognizes the outstanding individual of the monthly Ground Safety Award of Distinction winners from the previous fiscal year.

EXCEPTIONAL GROUND SAFETY LEADERSHIP AWARD

Mr. Timothy M. Edwards
4 WG, Seymour Johnson AFB NC

Recognizes a ground safety professional who has demonstrated superior leadership capability at an established unit, intermediate headquarters, or MAJCOM.

ANNUAL TRAFFIC SAFETY AWARD - CATEGORY II

WADS, McChord AFB WA

Recognizes a tenant unit with an effective traffic safety program.
OUTSTANDING UNIT WEAPONS SAFETY AWARD - CATEGORY I

2 BW, Barksdale AFB LA

Recognizes a host unit with an effective program to prevent weapons mishaps.

SUPERIOR PERFORMER IN GROUND SAFETY

TSgt Robbie B. Bogard
65 ABW, Lajes Field Azores

Recognizes a ground safety member who has made meaningful contributions to his/her unit's mishap prevention program.

CMGSGT PAUL A. PALOMBO AWARD FOR DISTINGUISHED GROUND SAFETY NEWCOMER

TSgt Michael K. May
1 FW, Langley AFB VA

Recognizes a new member to the ground safety career field for exceptional performance.

EXCEPTIONAL WEAPONS SAFETY OFFICER AWARD

Mr. Larry Pope
82 ATRS, 475 WEG, Tyndall AFB FL

Recognizes an ACC weapons safety individual who has made significant contributions to the weapons safety program of an established unit, intermediate headquarters, ACC, or USAF.
EXCEPTIONAL WEAPONS SAFETY NCO AWARD

TSgt Roger L. Smith
5 BW, Minot AFB ND

Recognizes an ACC weapons safety NCO who has made significant contributions to the weapons safety program of an established unit, intermediate headquarters, ACC, or USAF.

DISTINGUISHED WEAPONS SAFETY ACHIEVEMENT AWARD

TSgt Shannon L. Middleton
Sgt Steven P. Sullivan
388 MS, 388 FW, Hill AFB UT

Recognizes an outstanding individual(s) of the monthly weapons award winners from the previous fiscal year.

CONGRATULATIONS TO ALL THE WINNERS!
Home Security Checklist

Reprinted from USAA Magazine, August 1995, USAA, San Antonio, TX

Protecting doors and windows:
* Do you have deadbolt locks with at least a 1-inch bolt and reinforced strike plate installed on all outside doors? Is the strike plate reinforced with 1 1/2-inch screws into the studs?
* Do you have "keyed" double-cylinder deadbolts installed on all doors with 40 inches of a window?
* Do you lock all doors and windows every time you go out, even for a few minutes and even upstairs?
* Are your outside doors solid hardwood or metal-clad?
* Is your door from the garage into the house secured with a keyed deadbolt?
* Are sliding glass doors secured with a locking bar?
* Are stationary panels of sliding glass doors secured so they can't be lifted off the track?

Interior security:
* Are your interior lights turned on randomly by variable timers?
* Are your valuables marked with an identifying number?
* Are valuables stored out of sight, in a safe or in a safe-deposit box?
* Do you have an inventory of possessions? Photos? Video?

Exterior security:
* Do your outside lights have motion sensors so they come on when movement is detected?
* Do your outside lights and motion sensors turn on automatically at dusk?
* Are your shrubs trimmed to provide good visibility around the house and to eliminate "cover" for burglars?
* Are your gates, storage sheds and the garage locked with high-security, laminated padlocks or other secure locks?
* Are your ladders and tools stored out of a burglar's sight and reach?
* Is your garage door closed and locked?
* Do you avoid hiding extra keys outside your home? (Burglars know all the hiding places.)
* Have you checked with your local law enforcement agencies to request a home security inspection?
* Do you participate in the Neighborhood Watch program or other community crime prevention and awareness programs?

Security when you're away:
* Do you notify your local police department when you will be away from home for extended periods?
* Do you stop mail and paper deliveries?
* Are your interior lights set to go on and off randomly by variable timers?
* Does your neighbor check the house for flyers, newspapers or other items on the porch or in the yard?
* Is the lawn mowed or snow shoveled regularly?

Alarm system security:
* Do you arm the system every time you leave the house?
* Is your security system monitored?
* Does the back-up battery or radio transmitter allow the system to work even if the power goes off or is cut off by a burglar?
* Are the alarm system decals or signs prominently displayed on doors, windows and in the yard?
AIRCREW
SAFETY AWARD
OF DISTINCTION

Capt Russell F. Mathers, Capt Darrel T. Hines
Capt Jeffrey L. Swanson, Capt Raymond G. Brown
Capt Alfred N. Forzley, Jr., Capt Andrew J. Cernicky
Capt Warren G. Ward, Capt Victor R. Mosley
96 BS, 2 BW, Barksdale AFB LA

The crew had just taken off from their home base on a routine training mission. Just as the flaps of their B-52 retracted to the up position, an explosion resonated from the left side of the aircraft. The master caution and hydraulics-caution lights illuminated. Within seconds, the #3 engine fire warning light illuminated and engine instruments for the #3 and 4 engines became erratic. Capt Mathers immediately executed critical actions to shut down the engine on fire. He then conducted a visual inspection and reported extensive damage to the #3 and 4 engines. Capt Hines continued the climb out while maintaining aircraft control. Flames became easily visible on the underside of the left wing around the #3 and 4 engines. The visual assessment of the #2 engine pod and corresponding instrument indications, plus the continued vibrations led Capt Mathers to quickly shut down adjacent engine #4. With a persistent fire with flames streaming back along the engines and up into the fuel laden left wing, Capt Mathers commanded a climb to 10,000' for impending bail out considerations. The disintegration of the #4 engine led to it departing the aircraft, cowling first, then the engine core itself. The #3 engine, as well as the mounting pod itself, then separated from the aircraft. Realizing complete pressurization loss plus unknown flying characteristics, the crew climbed and leveled the crippled aircraft at 10,000'. In the following six hours, the crew assessed lost system capabilities and ran structural integrity and controllability checks. After burning down fuel to reduce gross weight, the crew attempted a landing. Confronted with an intolerable right drift during the approach, the crew executed a go around. Full left rudder actuated by both pilots still did not fully counter the control problems on the second approach, but the pilot was able to safely land the damaged aircraft.
PILOT SAFETY
AWARD OF DISTINCTION

Capt Michael J. Chapa
414 CTS, USAFAWC
Nellis AFB NV

Capt Mike Chapa, “MiG 02,” was participating in a Red Flag training exercise involving over 60 aircraft. The mission proceeded normally until MiG 02 engaged Lt Col Mark Debolt, Barky 53. He engaged Barky 53 and terminated when training rule limits were reached. As Capt Chapa came off, Col Debolt immediately called a Red Flag “Knock-It-Off” on his primary radio, immediately terminating all engagements and bombing runs. At this point, Capt Chapa did not realize his aircraft was on fire. Col Debolt then made a call on Guard that there was a “MiG on fire over No Name Peak.” The only part of the transmission Capt Chapa heard was “fire at No Name.” From the time the initial knock-it-off call was made to the time Capt Chapa heard the “Fire at No Name” call, only about 14 seconds had transpired. Capt Chapa’s nozzle was on fire, but there were no indications in the cockpit. His airspeed had decayed, but since he had pulled his power back to idle, he had not perceived a loss of thrust. Col Debolt switched frequencies and informed MiG 02 his nozzle was on fire. Capt Chapa immediately turned to the nearest airfield, started a climb, and scanned his engine instruments. Col Debolt then confirmed the fire had extinguished. In the climb, airspeed rapidly decreased to 190 kts with the throttle in mil power. Capt Chapa pushed the nose over and leveled at about 5000’ AGL, and the airspeed increased to 230 kts, allowing him to maintain a 2-degree nose high climb at 230 kts. MiG 02 reached high key and executed a flawless overhead flameout approach to touchdown. Capt Chapa’s decisive actions in completing checklist procedures and recovering the aircraft through a flame-out approach prevented the loss of the aircraft.

CREW CHIEF
EXCELLENCE AWARD

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

While performing a thru-flight inspection on an F-16 aircraft, Airman Hillier discovered the safety wire on the engine power take-off (PTO) oil case drain line was broken. Upon further inspection he detected the “B-nut” on the hydraulic line was loose and the safety wire was also broken. These serious discrepancies prompted Airman Hillier to examine the aircraft parked next to his. He found that the safety wire was also broken on that aircraft. He immediately notified his expeditor of the problem and personally inspected the remaining four aircraft. He found a discrepancy on four of the six aircraft deployed to Al Jaber AB, Kuwait. As a direct result from his attention to detail and commitment to excellence, an in-flight engine oil loss was averted and a potentially devastating incident prevented. Airman Hillier’s continuous safety awareness directly contributed to the 4 Fighter Squadron and the 4404 Composite Wing mission accomplishments in support of Operation Southern Watch.
FLIGHTLINE SAFETY AWARD OF DISTINCTION

TSgt Dennis N. Moore
917 LGMPT, 917 WG
Barksdale AFB LA

Sergeant Moore was performing an inspection of the number four engine on B-52H 61-021 undergoing phase inspection. While inspecting the intake area of the TF-33, he discovered a lock tab was broken off one of the fan blades. These tabs are extremely difficult to see. They are located behind the fan disk and can only be seen with the aid of a mirror. These tabs are rarely a problem and due to the difficulty in inspecting them, this missing tab could have been easily overlooked. He then notified the local Pratt and Whitney tech representative, who in turn, notified engineers by telephone. The engineers stated that the fan blade would have eventually come loose causing catastrophic damage to the engine and/or aircraft. Due to his actions, increased unit emphasis has been placed on the inlet inspection of the TF-33. Sergeant Moore’s professionalism and attention to detail prevented the potential loss of life and a valuable Air Force asset.

GROUND SAFETY AWARD OF DISTINCTION

SSgt Melvin R. Mitchell
99 CES, USAFAWC
Nellis AFB NV

Sergeant Mitchell became the Unit Safety Representative for the Civil Engineer Squadron (CES) in Aug 94. The programs implemented by Sergeant Mitchell resulted in a FY95 total mishap reduction of 36 percent and an on-duty mishap reduction of 48 percent when compared to FY94. The number of reportable mishaps for CES also decreased from four in FY94 to one in FY95. Sergeant Mitchell has also been very active working throughout the base. He assisted the Air Warfare Center's Safety office several times this past year by coordinating efforts with CES to alleviate hazards on the base master hazard abatement plan. On his own initiative, he established several work orders to rid the base of possible hazards. Sergeant Mitchell’s safety programs and his personal initiative this past year resulted in a direct savings to the Air Force of approximately $84,000 and 312 man-hours. He has also been very active in the squadron training program. By researching and conducting in-house training, he also saved over $100,000 in both tuition fees and travel and per diem expenses. Some of the training that has been conducted in-house includes confined space rescue training for 14 operations and 20 fire department personnel; initial asbestos abatement training; and initial lead-based paint abatement training. The monthly training in asbestos and lead awareness is available to the entire base. Sergeant Mitchell’s implementation of new and innovative safety programs and practices will continue to propel the CES into improved job and personal safety practices. He is the cornerstone of an outstanding ground safety program.
WEAPONS SAFETY
AWARD OF DISTINCTION

SrA Kevin L. Stegman
4 FS, 388 FW
Hill AFB UT

While deployed to Dhahran AB, Saudi Arabia, Airman Stegman was recovering an F-16 aircraft at the dearm end-of-runway, when he discovered a small amount of smoke coming from the rear of the aircraft. Upon further inspection he found a smoldering, partially expended M-206 flare protruding from the dispenser module assembly. He assisted in the shut down of the aircraft and the extraction of the pilot from the cockpit. He then notified the weapons expediter and evacuated all non-essential personnel out of the danger area. He informed the expediter, who immediately notified the Maintenance Operation Control (MOC) that a possible ground emergency existed involving live munitions and other aircraft parked in close proximity. Within minutes the Base Fire Department and EOD responded to the emergency. Airman Stegman's quick and decisive actions directly contributed to the mission accomplishments of the 4th Fighter Squadron and the 4404th Composite Wing in support of Operation Southern Watch by preventing a potentially devastating incident.

UNIT SAFETY
AWARD OF DISTINCTION

83d Fighter Weapons Squadron
475 WEG
Tyndall AFB FL

The 83d Fighter Weapons Squadron (FWS) is the only squadron in the USAF to conduct live missile firing for operational combat units. As part of the USAF air-to-air Weapons System Evaluation Program “Combat Archer,” the 83 FWS hosts combat units deployed in two week rotations at Tyndall AFB FL. The 83 FWS hosted 33 combat units from ACC, USAFE, PACAF, ANG, AFRES, and the USAF Weapons Instructor Course during FY95. These 33 units flew 2,056 flying hours accident free. These sorties included live missile firings, live air-to-air gunnery, and collateral BFM, ACM, and (D)ACT missions. Behind the safe flying are the squadron’s many accident-free ground activities. The 83 FWS managed the breakout, inspection, transportation, and loading of 135 AIM-9s, 75 AIM-7a, 97 AIM-120s, and 42,833 rounds of 20 mm ammunition. An integral part of the maintenance concept, the 83 FWS Combat Munitions Unit (CMU) is the only unit of its kind in the active duty AF. CMU personnel are exposed to unique explosive hazards through the reconfiguration of tactical-to-telemetry missile conversions. This conversion involves removing the warhead and replacing it with telemetry packs and in many cases rewiring of the missile. Vigilance by maintenance personnel ensured the incident-free expenditure of 24,714 units of chaff, 5,798 flares and associated squibs, and 30,530 impulse cartridges. CMU personnel have totaled over 225,000 incident/non-reportable/accident-free man-hours. The 83 FWS has clearly demonstrated that a sound ground, weapons, and flight safety program enforced by outstanding personnel, can ensure successful mission completion without incident.
It was a “standard” Red flag scenario with a large strike package of F-111s attacking a variety of targets throughout the Nellis range complex. F-15s would protect the strikers while F-16s took on the role of adversaries. All-in-all, over 60 aircraft would launch for the mission—training at its best.

Capt Mike Chapa and Lt Col Mark Debolt were on opposing sides that day. Capt Chapa, flying his F-16, was an aggressor with the call sign MiG 02. His job was to kill the strikers before they reached their targets. Barky 53 (Lt Col Debolt flying an F-15) was tasked to protect the strikers from the aggressors. The mission proceeded normally until MiG 02 and Barky 53 met in the vicinity of No Name Peak.

MiG 02 was attacking F-111s at low altitude when he spotted Barky 53 two miles north of him, also at low altitude. He selected afterburner and turned to engage the F-15. The ensuing engagement terminated when training rule limits were reached. As MiG 02 separated from the fight, Lt Col Debolt immediately called a Red Flag “Knock-It-Off” on his primary radio. The knock-it-off call was rapidly repeated on Guard frequency. The exercise was immediately terminated; all engagements and bombing runs stopped. Capt Chapa pulled his power back and confirmed he was in the correct altitude block, and continued westbound while the reason for the knock-it-off was sorted out. At this point, Capt Chapa did not realize he was the reason for the knock-it-off—his aircraft was on fire! Lt Col Debolt followed his knock-it-off call with a call on Guard that there was a “MiG on fire over No Name Peak.” The only part of the transmission Capt Chapa heard was “fire at No Name.”

Still unaware that his jet was on fire, Capt
Chapa began searching for a fire on the ground. From the time the initial knock-it-off call was made to the time Capt Chapa heard the “fire at No Name” call, only about 14 seconds had transpired. Capt Chapa’s nozzle was on fire, but there were no indications in the cockpit. His airspeed had decayed; but since he had pulled his power back to idle, he had not perceived a loss of thrust. Barky 53 joined on Capt Chapa’s wing while he queried “Showtime” for MiG 02’s frequency. Lt Col Debolt switched frequencies and informed MiG 02 that his nozzle was on fire. Capt Chapa immediately turned to the nearest airfield and started a climb. He scanned his engine instruments, but all indications were normal. Lt Col Debolt then confirmed the fire had extinguished. In the climb, MiG 02’s airspeed rapidly decreased to 190 kts with the throttle in mil power. Capt Chapa pushed the nose over and leveled at about 5,000 ft AGL, as the airspeed increased to 230 kts. He was able to maintain a 2-degree nose high climb at 230 kts. Capt Chapa flew to high key and executed a flawless overhead flameout approach to touchdown.

Post flight inspection of the aircraft revealed a nozzle burnthrough in the 6 and 12 o’clock positions. The fire was isolated to the nozzle only with no damage to the aircraft or the rest of the engine.

Lt Col Debolt’s timely actions safely terminated a large exercise and alerted MiG 02 to his aircraft problem. Had Barky 53’s actions been delayed, Capt Chapa would have continued westbound (away from the airfield) and may not have discovered his problem until more damage was done to the aircraft. Capt Chapa’s cool, decisive actions in completing the checklist procedures and recovering the aircraft through a flameout approach prevented the loss of the aircraft.
Since assuming 95 RS Chief of Safety duties in Jan 95, Capt Royal has ensured a phenomenal safety record while the unit maintained an intense operations tempo supporting theater and national command authorities in priority reconnaissance, command and control, and treaty verification taskings. During this period, the 95 RS flew over 3700 flight hours without a single flight mishap! As Chief of Safety, Capt Royal is responsible for flight safety of Wing assets operating in the European and Mediterranean theaters, including combat support missions for Operations PROVIDE PROMISE, DENY FLIGHT, and DELIBERATE FORCE. These combat support missions are accomplished utilizing RC-135 V/W RIVET JOINT aircraft and crews deployed from Offutt AFB. Additionally, RC-135U, RC-135S, OC-135, and EC-135 aircraft are also regularly deployed to 95 RS operating locations at RAF Mildenhall, UK and NSA Souda Bay, Greece. Capt Royal has aggressively incorporated theater specific safety initiatives into each of these unique aircraft operations.

A prime example of Capt Royal's safety leadership is his investigation of an EC-135 static discharge at NSA Souda Bay, Greece. As a result of his investigation, he revised EC-135 European deployment procedures, identified pilot to metro weather reporting limitations, and implemented a 95 RS, Det 1 Disaster Response Plan. Capt Royal’s coordination with the NSA Souda Bay Operations Chief, USAFE/SE, and the AMC theater accident investigator yielded a draft response plan that outlines the goal for 95 RS, Det 1 to act as the initial Air Force mishap investigation representative following an Air Force mishap. This initial response, working with Navy and Hellenic Air Force officials, is designed to collect perishable evidence following an AF mishap and preserve that evidence until USAFE can convene an interim mishap investigation board at NSA Souda Bay.

To complete our safety program, the unit’s superlative performance is highlighted through Capt Royal’s aggressive support of the 95 RS awards program. While he has been Chief of Safety, 95 RS crews have won all four quarterly flight safety awards from our host, the 100 ARW. One crew was also selected for the ACC “Flightline Safety Award of Distinction.” Finally, the ACC IG recognized 95 RS Safety as a “Superior Performance Team” during our Dec 95 QAFA. Capt Royal has led the 95 RS in maintaining this outstanding safety record under challenging conditions, and his committed professionalism and discipline will continue to carry on this standard of excellence for the 95 RS Safety program.
Although Sergeant Harris is a recent cross-trainee into the Safety career field, he has truly become an invaluable asset to the 55th Wing. Even with only a three skill level, his motivation and professional "can do" attitude have significantly enhanced the ground safety programs at Offutt. He was solely responsible for bringing a large backlog of AF Forms 1488, Admission and Disposition Reports, up to date in minimum time. A quick study, Sergeant Harris quickly mastered all required skills needed to perform annual safety inspections at a crucial time when wing Safety was extremely short of personnel. He is also an excellent speaker and was instrumental in improving our classroom safety presentations as well as our involvement in local community projects. He is responsible for planning and coordinating Supervisor Safety Training for all newly assigned supervisors, and reduced a backlog of personnel awaiting training by 78%. Additionally, he assisted in making our last "Safety Day" a huge success by scheduling guest speakers, coordinating set-up and tear-down, and writing thank-you letters to all the speakers. He brought an innovative and creative approach to safety awareness throughout the wing by procuring quality safety literature for mishap prevention briefs and ensured distribution to all. Sergeant Harris is a major contributor to the Offutt "Safetygram," a ground safety educational publication that highlights important issues and passes reliable information to base personnel. He also provided professional safety oversight for the largest Base Open House and Air Show we have had in recent years—spanning three mishap-free days. A staunch supporter of quality time management, he assessed, reorganized, and updated the Unit Safety Representative's Management Book to reflect new references, directly improving program management while saving research man-hours.

Ground Safety
Award of
the Quarter

February 1996  The Combat Edge  25
Don’t try to tell me you have never violated any personal safety standards. If you’ve ever worked in maintenance, you, or someone you worked with, probably took some type of short cut sometime in your career that put you, them or the equipment at risk. You can’t hide either. The Air Force is such a small community that all someone has to do is a little homework and they can find out where you’ve been assigned, who you worked with, and the rank you held at a particular duty location. With just a little more digging, they can dust off information about an unsafe operation you were, or may have been, involved in. I’ve been reminded of this many times as I travel around Air Combat Command as a member of the Nuclear Surety Staff Assistance Team.

I’ve had some young troops (with less than 8 years in the service) ask me about an incident I was involved in over 16 years ago. If I really did some in-depth soul-searching, there were more unsafe operations in those early years than I care to remember. I have to remind my questioners that these were the activities of a young airman, and for the most part, these activities were condoned by my supervisors. It astonishes me that many of these young troops have similar tales to tell!

In the nuclear weapons business, I think we used to pride ourselves on the large quantities of toxic materials we used and maintained in our storage lockers. As an airman, I was impressed as I went through my first training operation and we used chemicals such as, methyl ethyl ketone (MEK), toluene, acetone, freon, dope and lacquer thinner, denatured alcohol, and isopropyl alcohol. If that wasn’t enough, follow-on training operations provided us many more opportunities to use enamels, lacquers, zinc chromate primers, poisons, alodine, and many types of adhesives. Unfortunately, our training did not always include the required personal safety precautions one should take when using toxic materials. I really don’t think this disregard of safety standards was intentional, but rather I think our trainers were just products of the working environment.

After training, war reserve maintenance provided us with many more opportunities to use and misuse these toxic materials. Technical data required the use of these materials to clean, prepare or preserve the weapons and launch system surfaces. Routine maintenance of our section’s test and handling equipment enabled us to hone our painting skills. How many of you remember working in a maintenance bay where the air had a noticeable yellow tint from the zinc chromate primer? If you worked Minuteman missile equipment, strata blue was your color. The everyday use and availability of these materials coupled with the familiarity we had with them caused us to grow ever more complacent as time went on. You might ask where our
supervisors were when all this was happening. The low manning and even lower retention rates of the middle to late seventies meant supervisors had to be workers. It was a team effort to get the job done. If we needed painters, they painted. We did the job without the luxury of having the team chief just standing back and reading the checklist. At the time, that was what was expected — turn weapon systems in the least amount of time. Recycle time was the driving factor for why we were doing maintenance. Personal safety was briefed before the start of most operations, but it was rarely enforced. Most days we were in a groove building payloads, testing components, mating weapons to the launch system, and using and abusing toxic materials. I knew whenever someone in maintenance was using MEK — it always gave me a headache. However, I never complained, just kept working. That was expected, no room in our organization for complainers, peer pressure kept everyone in line.

The worst and the most talked about experience we had was when we set up a room in the back of the building to refurbish handling equipment. We were getting ready for some type of higher headquarters visit. Seems like every other month we were preparing for an inspection. We had MSET, IG, DNA, SMES, SAC Staff Assistance Visits, and, of course, the wing had their own tiger teams roaming around the maintenance building watching, waiting to find a discrepancy so they could notify the wing staff that things were just not right in your section. With all the getting ready we had to do, this room became a permanent fixture and was not shut down after the first inspection. As we worked, the room filled with chemical fumes, primer, and final coat overspray. The floor was usually covered with overspray, with not one spot of concrete visible. This refurbishment project went on for months. Upper management never visited us in our little cubbyhole. When they finally did, they hit the roof. But their focus was what we had done to their precious concrete floor. Nothing was said about the overspray in the air we were breathing day after day. It never dawned on them that we might be at risk. Given the original tasking and minimum instructions, we saw nothing wrong with what we had done. Equipment leaving the room passed as new. None of it was ever written up in any kind of inspection report. As far as we were concerned — mission accomplished. However, our supervisors had only one thought during the whole ordeal, “What had a bunch of jeep airmen done?” not “How could this happen?” After they cooled off, we were tasked to clean the floor, no matter what it took.

That last statement lead directly to this incident. Being inexperienced airmen, we first tried to mop the floor with alcohol — it didn't work. Next we tried MEK; did the job, but like I said earlier it gave me an instant headache. So my supervisor sent us airmen to the breakroom because he was going to fix this mess. We left him there to find the right chemical to clean the floor. We didn't know he was going to combine chemicals to clean that floor.

We were happy little airmen, taking a break while a "buck" sergeant was cleaning the floor. Man, life couldn't get better. When a fellow airman went back to find out what was taking so long, he found our supervisor laying face down in his mixed up concoction. He sounded the alarm, picked him up and took him outside to get some fresh air. Our supervisor had been overcome by the fumes. Thankfully, he was not permanently injured, but he was more than a little embarrassed by what had happened. We ventilated the room and continued to mop the floor. Empty 5 gallon cans of MEK, acetone, and dope and lacquer thinner were laying about the room. What we did was just plain stupid. Cleaning floors, or anything for that matter, in a poorly ventilated room is inexcusable. To be given incomplete directions or not be given the proper personal safety equipment for this operation is deplorable. The fact of the matter is I still run into young airmen who share similar experiences with me. The last thing I would think a supervisor would overlook today is safety. If supervisors are out there enforcing the safety standards, things like this would never happen. If commanders spend money on personal safety equipment, supervisors should ensure it is used. Back then we had maybe 2 chemical respirators for 15 people. No matter how tight the budget — sharing is just not going to happen. I would never put something on my face that some of my co-workers had on theirs. I hope I don't have to retire to stop hearing about stories like this.
You and I have had some great times together even though we’ve never met fact-to-face, or even exchanged greetings. I don’t know your name, your age, or your gender. In fact, I know absolutely nothing about you. You cannot deny, though, that we have shared exciting adventures.

I’m still not really sure how we got started. It seems like we’ve always played our little game. You know, the one where you try to kill me on the road and I do my best to avoid letting you win? I’m happy to say that so far I’ve avoided your best attempts at victory. But don’t lose heart, every winning streak must eventually be broken.

Quite frankly though, a few of your older tactics have gotten kind of stale. For instance, you can’t fool me any more with that old “turn or change lanes without signaling” trick. I’ve learned to never rely on you telegraphing your intentions.

Also, “right turn from the left lane” (and vice versa) no longer affects me now that I’ve driven in Saudi Arabia. I scan traffic far ahead and on all sides of my vehicle these days to avoid surprises.

Your abrupt stops don’t bother me anymore either. I maintain a following distance of at least a car length for every 10 miles per hour I’m traveling, even more if conditions are degraded due to fog, icy, or wet roads. And you can’t get me by sneaking through an intersection just as your light turns red because I always make sure the intersection is clear before I proceed.

I could go on, but you know your tricks better than I do. Listing every one would take up a lot more space and time than we have here. Suffice it to say, I really have been paying attention through the years. I’m not the easy target I was when we started.

However, it occurred to me the other day that I had never taken the opportunity to thank you for all you’ve done for me. My increased hand-eye coordination is entirely to your credit. You have also sharpened my reflexes and my eyesight, brought home the importance of defensive driving, increased my situational awareness behind the wheel,
and even cured my constipation a time or two. For all these wonderful things, I thank you from the bottom of my heart.

But I also have another reason for contacting you now. I noticed lately you've been playing by different rules. You've taken up the game with people who may not understand it or know the rules by which it is played.

As long as it was just you and me, everything was great. My concern is for the other innocent folks out there on the road. You need to be more discriminating when choosing your playmates.

I'm referring to your lack of headlights during periods of decreased visibility. I know, I know, they don't help you see any better. But, they let other people see you. I'm also talking about driving under the influence or while fatigued. And you really should reduce your speed in residential areas and school zones, or when the driving conditions are lousy, or in construction zones. While these techniques might work on me, they're not exactly surgically precise. Others out there, knowing nothing of our game, might get caught between us. And us hard-core game players do hate sloppy work, don't we?

The other day I was shocked when I pulled up behind you at a red light and saw your kids bouncing around the back seat unrestrained. Those were your children you were placing at risk. They're under the minimum playing age and far too young to understand the rules or the consequences.

You have done a lot for me personally, but others out there may not have signed on to our brand of blacktop entertainment. I'm not positive they would even consent to play if given the opportunity.

In fact, I think I'm getting a bit tired of it all. Perhaps we should call a draw and press on with our lives while we still have them. I have kids and a spouse, as I'm sure you do, and I'd like to think they'd miss me if I never came home again.

We've both gained all we're going to from this game, and I'm putting in for retirement. I suggest you do the same.
My squadron, along with 2 Jaguars, has been conducting bombing and reconnaissance missions over Bosnia for the past 14 days as part of Operation Deliberate Force. So far our missions have met with a good degree of success and the results of our bomb- ing with LGBs (Laser Guided Bombs) have been impressive. Of course, not everything has gone smoothly all the time, and detailed analysis after the smoke has cleared will be the final judge of our success.

There are many flight safety lessons that come from combat operations, and perhaps there is no time like the present to put those thoughts down in the hope that they may help someone else in the future.

**Safety must be fundamental in your attitude to life**

Firstly, I believe in an all-embracing philosophy on safety. Whether you fly aircraft, fix them, or support the other people who do, personal safety and the protection of others must be fundamental in your attitude to life. People who risk-take on the ground and in their personal life are very likely to continue that attitude in their work environment. Combat is not the place to start thinking about flight safety; it needs to be ingrained during peacetime training. So, look after yourself and others carefully. It would be a tragedy to complete a demanding operational detachment only to be killed driving home from work when tired.

**Recognize what generates stress**

Secondly, I believe that people make mistakes when they digress from the plan they have made and begin to undertake tasks that have not been properly thought through. More often than not, rushing to get the job done takes away the time to ask all the vital “what if” questions that could anticipate potential problems. Many of our combat missions have been changed at short notice. Recce missions have been switched to bombing and targets have changed, often by the hour. Nearly every mission has presented ground crew and aircrew alike with considerable challenge and where the consequences of making a mistake are likely to be tragic. What has stood out throughout this time has been the importance of
doing the job in the way we have trained and in sticking to basic principles of safety. We all have a desire to do our job well and achieve the task. But when looking back over a hectic day's events in the more relaxed surroundings of the bar, we have all realized that what appeared at the time to warrant taking an extra risk, was on reflection, perhaps unnecessary. The important lesson here is to recognize what generates the stress that leads people to make mistakes or miss out vital actions. Everyone has a part to play in this. Commanders need to ensure that the overall structure of commitments is sensibly balanced so as to allow proper time to plan and execute events in the program, as well as to recover from them; there is no doubt that tired people make more mistakes. Supervisors also need to ensure that the daily task is within the capabilities of those undertaking it, given the prevailing conditions. When plans begin to be altered fast, it is vital that someone is standing back from the fray looking for the pitfalls. Turnaround times, tanker availability, fuse setting, arming times, ingress formations, collision avoidance responsibility, base weather, etc., all need to be evaluated quickly in what is likely to be a complicated plan involving many different aircraft types being over target in a very short period. Individuals need to be able to recognize when they are overstretching their own limits as circumstances are very likely to put decision making firmly in the hand of the individual completing the task; here again, if you are unsure of what is being required of you, you must ask the right questions to remove any doubt. Select an achievable aim and don't get distracted from it. Plan sensibly, ensuring that you do not paint yourself into a corner and don't suddenly change the way you have been trained to do the task. When you add on the additional “pucker factor” of conducting combat operations, your basic airmanship and trade skills need to be second nature as they are the foundation of successful combat operations.

Team work

Success in combat is also about good teamwork, and my experience over the past two weeks has convinced me wholeheartedly on this point. Each and every person in our Service has a vital role to play. The quality with which you conduct your daily task has a direct impact on the operational capability of our fighting forces. Quality and safety go hand in hand. A focus on quality and a commitment to giving the best service will help make safety an all embracing principle of our business.

In peace and in combat, success is brought about by thorough planning, robust training and good teamwork. I have been convinced that a positive attitude to safety in peacetime and in combat is a fundamental principle for success. Combat is not the time or place to re-invent the wheel, and safety in the air and on the ground takes on even greater importance. After all, a safe landing at the end of the mission is just as important as hitting the target.