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Ramstein AB, Germany

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Departments
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Each day, I marvel at the unwavering professionalism and pride displayed by the men and women of Air Combat Command. Whether enduring long deployments in harsh environments, or working extended hours guarding our installations, our airmen consistently exceed my expectations. But there are many challenges ahead as we continue the fight in the war against terrorism.

The profession of arms can be dangerous, but Operational Risk Management (ORM) practices can enhance our awareness of the risks we face and, in turn, keep us safe. Many ORM techniques are nothing more than common sense. Other ORM practices take solid analysis to identify the risks involved. In either case, we must constantly ask ourselves if the risks are worth the rewards, if we have mitigated the risks as much as possible, and if we have the authority to accept those risks. There is no mission — in peacetime or in combat — that warrants taking unnecessary risks. This year I ask each of you to further develop your risk management strategy to get the maximum out of the sound and effective application of ORM principles.

Let's start 2004 off right. Know the risks you are accepting and be prepared to call “knock-it-off” if warranted. Train hard. Fight hard. Fly safe. Celebrate smart.

General Hal M. Hornburg,
Air Combat Command, Commander
Situational Awareness is Key

By Capt Mark Gruber, Ramstein AB, Germany

January 2004  The Combat Edge
Situational awareness, also known as SA, has become a common term among many specialties. There are many ways to explain this somewhat nebulous term, but in a nutshell it is “keeping in the game,” knowing what is going on around you. SA is the ability to picture oneself in relation to what might happen, what has happened and what is happening no matter how it is defined. Yogi Berra may have said it best, “You can observe a lot by just watching.” Having SA requires you to have an accurate perception of what is going on, deciding what threats are looming, and then forecast your actions to appropriately defend against the threat.

Why is maintaining SA important? Because loss of it is the leading cause of accidents associated with human error, and it’s NOT just an “aircrew problem.” No matter what job you have — aircrew, security forces, maintainers, medical personnel, or services — you need to maintain SA. Don’t believe that SA even applies to office workers? How many times have you seen important paperwork that has errors? It is likely a result of getting distracted, task saturated, and/or being complacent. These are all contributors to losing one’s SA. If we can increase individual and team SA, we will improve our effectiveness and may reduce the number of accidents and incidents caused by the “human factor.”

SA is at the core of our ability to make accurate decisions and then perform the appropriate action. Anything that takes your attention away from the task at hand will reduce your level of understanding of what is going on around you. Attention management anomalies, such as channelized attention, complacency, distraction, task saturation, inattention, habituation, and temporal distortion, all negatively impact situational awareness. Obviously, this can be hazardous to your mission effectiveness, (even your health) whether you’re in the cockpit, in your car, looking at a radarscope, or entering data into a computer.

How do you know if you have SA or have lost it? There are some signs that may highlight a lapse in your SA. For aircrew: Have you ever forgotten your helmet or G-suit before going out to the aircraft? Moot point if you’re a KC-135 pilot (I hope). Have you missed important information during a brief or ATC clearance? For ground-based personnel: Have you ever locked your keys in your car because you allowed something to distract you? Have you been jolted back to reality by your supervisor as you thought about your plans for the weekend? These are some ex-

Photo by SSgt Russell Wicker

Photo by MSG Lance Cheung

amples of common indicators for lost SA. Missing communications, violating standard operating procedures, missing your intended “target,” confusion, fixation, not following checklists, and using procedures that were not planned or briefed are all signs that you may have lost the “big picture.” And finally, if you get the classic gut feeling or the hairs on your neck stand on end — you’ve probably lost SA.
Now, how can you “stay in the game” and maintain SA? Good question. Prevention is always the best cure to a problem. Honestly assessing your physical and mental condition is an important step. Did you get enough sleep? Are you eating a well balanced diet? Are things taken care of at home? Experience and careful preparation are also key factors. When was the last time you accomplished this particular task? Did you really complete the required training or “pencil whip” it?

You are responsible for your proficiency and knowledge level. Take it seriously. It is also useful to enhance your working memory by rehearsing possible events. Anticipate problem areas and your reaction to them to reduce any surprises. When changing shifts or transferring a task to someone, ensure he or she has the “big picture” by briefing him or her thoroughly before they take over. Have a task management plan in place — know what you’ll do when the workload gets hectic. And finally, use all available resources, also known as CRM.

You’ve done everything humanly possible to maintain SA, but ... you lose it because you’re human. What now? Once you recognize loss of SA in yourself (or more likely someone else notices it in you), get back to the basics by reprioritizing tasks. You’ve probably heard “aviate, navigate, and communicate” from the aviation world. Same rules apply to every setting — focus on the right priorities. Don’t let yourself stay distracted or divert your attention to something that is less important.

Finally, if you feel you are losing it, fess up and use the resources you have available (other members in your flight, team, etc., instruments or other tools of the trade) to put your head back in the game. As the wise sage Yogi Berra said, “90 percent of the game is half mental,” and we need all the help we can get.

Now, let’s be safe out there.

“Clues” to lost SA

This list isn’t perfect or all-inclusive, but it provides some common indicators that someone is about to lose (or has already lost) situational awareness.

**Being “Behind The Power Curve”**

**Breakdown in communications**

**Fixation**

**Missed steps on checklist**

**Making simple errors**

**Complacency**

**Confusion**

Once you recognize loss of SA, do everything in your power to get it back!
how effective is your
MACA program
I've been Chief of Flight Safety at two very different Air Force bases. One, Moody AFB, located in southern Georgia, is surrounded by tall pines and dense swamps. The other, Luke AFB, located in south-central Arizona, is surrounded by desert landscapes and expanding urban development. At the time, Moody AFB had a modest flying schedule and housed five flying squadrons with four completely different airframes. Luke AFB housed nine flying squadrons with only one airframe but had an incredibly robust schedule. Civil traffic around the Moody area was extremely light; however, civil traffic around the Luke area was some of the busiest in the country.

Comparing the two areas, one might conclude that Moody would require a smaller Midair Collision Avoidance (MACA) program, whereas Luke would require much more. This may very well be true, but Moody experienced a mid-air shortly after I left my year-long tenure at wing safety, and Luke has not had a midair in over a decade. Does that mean Moody actually has a more dangerous flying area when it comes to MACA? The fact is every wing has “high threat” areas requiring specific attention when managing a MACA program.

AFI 91-202 discusses the entire MACA program in less than one page. It essentially covers everything with comments like, “Evaluate the midair collision potential with civil airlines and work with operators of nearby airfields to reduce risk and minimize the hazards,” and, “Tailor the MACA program to meet local needs.” These comments are great in the sense that every wing now has the freedom to make their program take a variety of forms. What isn’t covered is, “How do wings evaluate midair collision potential with civil airlines?”

Depending upon your situation, there may be a lot of issues not addressed by AFI 91-202 requiring a great deal of attention to make a MACA program fully effective. One of these is the concept of the MACA Working Group. AFI 91-202 does not define or specify the need for a MACA Working Group. It does state, “The Flight Safety Officer (FSO) works closely with ... other interested parties such as the Chief Air Traffic Control Operations Officer (CATCO), the Airfield Operations Flight Commander (AOF/CC), the airspace manager, and the local Flight Standards District Officer (FSDO), to establish a comprehensive MACA program.” My first thought when reading this was that if all these agencies got together to talk about MACA we would have a MACA Working Group. But it isn’t that simple.
When I took over the flight safety office, I thought about setting up a group with various individuals to discuss MACA issues. I used the concept of the BASH Steering Group or Bird Hazard Working Group as my idea for developing the group. I invited the same "players" with the thought that everyone with an interest in trying to keep aircraft from flying into birds would also be interested in trying to keep aircraft from flying into other aircraft. The group gathered to discuss Operational Risk Management midair collision avoidance and decide how to best deal with various situations on base.

After a couple of these meetings I realized that Standardization/Evaluation Review Boards, Airfield Operations Boards, and Supervisor of Flying meetings all covered aspects dealing with MACA. But all of these groups, including the MACA Working Group I had formed separately, only covered small pieces of the puzzle. It was great for addressing various concerns with respect to inter-flight deconfliction and deconfliction between various military flights arriving and departing Luke AFB. Of more concern to me was how to deal with the large number of complaints I was getting concerning near midairs with civil aircraft.

Luke AFB sits on the west side of Phoenix, the sixth largest city in the United States. Due to the large population and extremely good weather year round, airspace is saturated with aircraft. Sky Harbor, the main commercial airport in Phoenix, is the nation's fifth busiest airport for takeoffs and landings. Deer Valley Airport, located on the north side of Phoenix, is the nation's third busiest general aviation airport and 46th busiest overall — busier than Chicago-Midway. These are the busiest airports in Phoenix, but there are five other airports and a glider port area surrounding Phoenix. Two of the airports are within 10 miles of Luke AFB and the glider port is less than 20 miles away.

In addition, the main route civil aircraft take departing Phoenix to the west is through Luke's VFR straight-in pattern, not just close to it, but right through the middle. All these factors make for a very challenging MACA program. It did not take long for me to understand that the on-base working groups acting alone were not going to solve these challenges.

I discovered the best place to start was with the FSDO. The FSDO is very involved with various aspects of the Phoenix aviation picture. As a result of a desire to gather information with, as well as, give information to the civilian aviation population, we were invited to be members of the Arizona Aviation Safety Advisory Group. This group meets once a month with representatives from several aviation associations to discuss flying safety trends among other issues.

The Federal Aviation Administration (FAA) office then sponsored another group called the Arizona Flight Training Workgroup (AFTW) to discuss various flying challenges in the Phoenix area to include Fixed Base Operator operations, airspace issues, and controller challenges. This is another great working group providing a conduit for communication between Luke AFB military operations and the civil sector.

During these and other meetings, Luke safety personnel developed an awareness of various airspace issues that could not be answered by members of the AFTW who dealt with airspace. We soon learned there was yet another working group called the Phoenix Airspace User's Working Group. This group provided a forum for airspace discussions — exactly one of the things we were looking for.

The lesson learned from this entire process was that fulfilling a requirement to have a working group may not even touch the issues. Our MACA program involves four formal working groups, several informal working groups, an average of five meetings/briefings with civilian organizations each month, and even then issues exist that can't be resolved in those forums.

The key is to get out there and get involved with local airports, pilot organizations, flight schools, FAA offices, and civilian aviation safety programs. You won't solve all your MACA challenges with your on-base MACA Working Group and a few phone calls and e-mails to the local FAA office. You have to get involved in your community. It takes a little effort, but isn't saving a human life worth it?
t’s winter, and the “silent killer” is on the loose again. Its favorite prey is motorists, but it also has been known to attack people in their homes. Unsuspecting campers are fair game too, like the three Air Force members who died in April 1996 after falling asleep in their sealed tent with a small propane heater burning. Their killer, carbon monoxide (CO) poisoning, was never seen, heard, or smelled. The three men simply fell asleep and never awoke. All three deaths could have been prevented if the individuals understood the nature of CO.

The gas is difficult to detect and the symptoms of CO poisoning are easily confused with other minor illnesses. First of all CO is odorless, colorless, and tasteless. It suffocates the victim by displacing oxygen in the blood, and it only takes a very small amount of CO in the air to threaten your life. In fact, air containing one percent CO can kill an individual within 5 minutes. The symptoms of CO poisoning include headache, nausea, or dizziness. Because you can’t see, smell, or taste the gas and the symptoms of poisoning are easily attributed to other illnesses, often the person in danger is unaware of the hazard. They simply become drowsy and fall asleep — permanently!

Not only is the gas difficult to detect, it’s easily produced. This lethal gas is the by-product of carbon-based fuel combustion. To the average person this means fuel-burning furnaces, ovens, water heaters, clothes dryers, refrigerators, or even fire places are potential threats. So, with the gas so commonplace, how can we protect ourselves from CO poisoning?

First, furnaces and other gas powered appliances must be properly ventilated. Second, don’t use a gas oven as a heater. Modern gas ovens are designed to heat a small compartment, and therefore, they don’t have a stove pipe to exhaust CO. If the oven is used improperly as a spare heater and the door left open for long periods of time, much more fuel is burned than the manufacturer intended. Enough CO may build up to produce a headache — or worse! Installing a carbon monoxide detector on each level of your home can alert you to dangerous CO buildup.

Another way to protect yourself from CO poisoning is to never bring a catalytic heater, hibachi, charcoal grill, or gas lantern into a home, camper, vehicle, or tent. People die every year because they use hibachis or charcoal grills inside as makeshift heaters. These appliances require a great deal of ventilation for safe operation, and the danger of using them indoors far exceeds the benefits of the warmth they provide.

In addition to protecting ourselves from CO poisoning in our homes, we need to be aware of the CO poisoning hazard in our automobiles. Normally CO flows from the engine through the tailpipe to the rear of the car where it is dispersed into the atmosphere. However, if the exhaust system is rusted through, fatal concentrations of CO can escape into the passenger compartment. Additionally, tailpipe cracks and holes behind the muffler present a CO hazard. But, the greatest potential for CO poisoning in automobiles occurs when an individual is stranded. Consider the following: CO can enter a car through the heater and through cracks around windows or doors. If there is a wind or breeze blowing the exhaust gases from the vehicle’s tailpipe back towards the front of the vehicle, an envelope of CO forms around the stationary vehicle. It’s even more likely if the vehicle is snowbound. While most people associate CO poisoning with auto heaters and cold weather, the gases can build up in warm weather when using an air conditioner.

Taking a few precautions in your vehicle can minimize your danger of CO poisoning:

- Periodically check and repair the exhaust system.
- If stranded, run the engine intermittently (15 minutes of each hour).
- Ensure the tailpipe is free of obstruction. This may mean having to check periodically if it is snowing.
- Make sure the wind is blowing exhaust away from the vehicle. If not, don’t run the engine.

Knowing the symptoms of CO poisoning and first aid procedures are important, but being alert to situations that can lead to CO poisoning and taking all available precautions is even more important. Finally, the key defense against CO poisoning is adequate ventilation whether in the home, automobile, workplace, or tent.

Editor’s note: The Air Force Safety Center contributed to this article.
SILENT KILLER

Their killer, carbon monoxide (CO) poisoning, was never seen, heard, or smelled.
Ever heard the old superstition that breaking a mirror will get you 7 years' bad luck? Well, superstitions are only in the mind; however, a .22 slug zipping through a bedroom mirror is a reality. And for a mistake like that, 7 years' bad luck could be a "light" sentence.

I sat on the bed in the master bedroom of my family quarters at Fort Rucker, Ala., and pulled my Ruger Standard Model .22 caliber semiautomatic pistol from its case. I had fired the Ruger earlier that week and hadn't yet cleaned it. In the back of my mind I could almost hear my granddad (who taught me to shoot) saying, "Clean it the day you shoot it!"

I dropped the magazine out of the grip and checked to see if there were any rounds in it. It was empty so I assumed that the Ruger was unloaded. I could have pulled the slide back to check the chamber, but that would have cocked the pistol and forced me to dry fire it to relieve mainspring tension. Because dry firing a .22, granddad had warned, could damage the chamber, I normally only dry fired the Ruger when I finished shooting for the day.

As I sat on the edge of the bed, I wondered if I had remembered to dry fire the Ruger at the end of my last range session. Since you couldn't tell if the Ruger was cocked by simply looking at it, the easiest way to tell was to gently pull the trigger back and see if it moved freely or stiffened suddenly. If the trigger moved freely, the pistol was uncocked. If the trigger stiffened suddenly, that was a sure sign I'd inadvertently left the pistol cocked.

I pulled back on the Ruger's trigger about a quarter of an inch when it stiffened. Because I had already checked the magazine and found it empty, I assumed the chamber was also empty. Since I couldn't take the pistol apart for cleaning with it still cocked, I pulled the trigger all the way back.

"Blam!" The Ruger went off, sending a round through the bedroom mirror. My wife ran into the bedroom to see what had happened. As I sat there shaking, I imagined with horror what would have happened had she been in the bullet's path.

When I thought about it later, I couldn't believe that I made such a potentially deadly mistake. After all, I had been raised around guns. Granddad taught me to shoot a handgun with his High-Standard "Sport King" — a .22 pistol very similar to the Ruger. He also taught me to treat every gun as if it was loaded. And it wasn't just his voice I was hearing in the back of my head. I was an Army sergeant. How many times had I qualified with my M-16 and made sure the chamber was empty before leaving the firing line? Unfortunately, this time I thought I knew better while handling my own weapon. I found out the hard way that I didn't.

Now I live and breathe that well-founded axiom, "There is no such thing as an unloaded gun."

Whether the firearm is a single shot, pump, bolt action, lever action, semiautomatic, or revolver, I ALWAYS check the chamber.
"Blam!"
The Ruger went off, sending a round through our bedroom mirror.

And although it might sound odd, I check the chamber more than once on some firearms. I've owned lever action rifles where a cartridge would occasionally jam in the tubular magazine, only to jar loose later and slide into position for chambering.

There is a simple moral to this story — never handle a firearm without checking its chamber to make sure it is empty. I was lucky that I didn't hit anything more precious to me than the bedroom mirror — and even that didn't cost me 7 years' bad luck. However, don't count on good luck to keep you safe around a weapon. Don't assume your privately owned weapon is unloaded and don't take the word of a friend who hands you a firearm. Accidents can happen. Don't let 7 years of bad luck — or worse — happen to you!

Editor's note: Courtesy Countermeasures Magazine

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Established:
2nd Bombardment Wing, Very Heavy, on October 15, 1947
Organized:
November 5, 1947

Redesignated:
- 2nd Bombardment Wing, Medium, on July 12, 1948
- 2nd Bombardment Wing, Heavy, on April 1, 1963
- 2nd Wing, on September 1, 1991
- 2nd Bomb Wing, on October 1, 1993

General Characteristics:
- Primary Function: Heavy Bomber
- Contractor: Boeing Military
- Length: 159 feet, 4 inches
- Height: 40 feet, 8 inches
- Maximum Takeoff Weight: 488,000 pounds
- Range: Unrefueled
- (Modified to carry air-launched cruise missiles, Harpoon anti-ship, warfare officer)
- Accommodations: Six ejection seats
- Unit Cost
- Inventory: Active force, 85; ANG, 0; Reserve, 9
Airplane Co. **Power Plant**: Eight Pratt & Whitney engines TF33-P-3/103 turbofan  
**Thrust**: Each engine up to 8,800 miles  
**Wingspan**: 185 feet  
**Speed**: 650 mph  
**Weight**: 185,000 pounds empty  
**Ceiling**: 50,000 feet

**Armament**: Approximately 70,000 pounds mixed ordnance — bombs, mines, and missiles. (and Have Nap missiles.)

**Crew**: Five (aircraft commander, pilot, radar navigator, navigator and electronic $53.4 million (fiscal 98 constant dollars)  
**Date Deployed**: February 1955

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*The Combat Edge*
Crew Chief Safety
Award of Distinction

An expeditor dispatched a four-person engine run crew to an F-15E to perform a main fuel pump leak and operational check following a pump reduction gearbox seal replacement. SSgt Filbert reviewed the aircraft maintenance records, conducted a safety brief with his three-person ground crew, and prepared the aircraft for dual engine operation. He engaged the jet fuel starter (JFS) and started the right engine without incident. However, during the start sequence of the left engine, it immediately accelerated to full afterburner causing the aircraft to roll up on the chocks. Responding precisely as trained, SSgt Filbert stood on the aircraft brakes and initiated emergency procedures. He chopped the left throttle to the off position, actuated the left engine fire button, and turned the left engine master switch off. He then cycled the JFS switch, cycled the left engine master switch, and restarted the JFS to motor the left engine, thereby ensuring a safe fan turbine inlet temperature per the emergency procedures. He then informed the tower of his ground emergency and shut down both engines. Upon shutdown, a small left engine tailpipe fire started which was quickly extinguished. SSgt Filbert’s outstanding instantaneous response to this serious emergency prevented damage to the $1.3 million engine and quite possibly fire damage to a $44 million F-15E aircraft.

SSgt John C. Filbert, 4th Aircraft Maintenance Sqdn., 4th Fighter Wing, Seymour Johnson AFB, North Carolina

Weapons Safety
Award of Distinction

Ssgts Cisneros and Foster were working as the 2 MUNS “Red Ball” flight line maintenance team for a Nuclear Operational Readiness Exercise (NORE) BUSY MUDBUG 03-07. Their tasking was to ensure weapons safety and serviceability during aircraft loading, downloading, and transport to and from the flight line. They had just properly positioned their vehicle on the main aircraft generation ramp to observe preparations for a weapons movement consisting of 10 vehicles, four Air Launched Cruise Missile (ALCM) pylon packages, and two ALCM launcher packages back to the Weapons Storage Area (WSA). They observed a B-52H on the ramp outside of the generation area with its engines running. Both assumed an engine ground run was in progress. Minutes later, they noticed the aircraft depart chocks west onto the apron, turn south, and proceed towards Taxiway Bravo on the established weapons movement route to depart the airfield on Runway 33. The weapons movement team received authorization to proceed to the WSA via Taxiway Bravo at approximately 1140 local time, just as the aircraft departed chocks. Maintenance Operations Control Center (MOCC) announced on all radio frequencies that a weapons movement had begun and all vehicles, including aircraft, were to hold their current positions and not enter into the purged movement route. Ssgts Cisneros and Foster immediately contacted their MUNS flight line expediters (AMMO 5) and notified them of the potentially hazardous situation. AMMO 5 contacted Munitions Control and MOCC, who were both unaware of any aircraft movement within the purged area. The aircraft continued onto Taxiway Bravo before being directed to hold short and clear of the weapons movement route. The movement continued around the aircraft and on to the WSA unabated. Ssgts Cisneros and Foster’s vigilance averted a serious situation and potentially an aircraft munitions mistake.

SSgt Jodi L. Cisneros, SSgt Jeremy C. Foster, 2nd Munitions Sqdn., 2nd Bomb Wing, Barksdale AFB, Louisiana
Upon returning from an Operation NOBLE EAGLE sortie, Capt Lance Wilkins maneuvered his F-15C aircraft into position for a 7-mile final approach and was configuring his aircraft for landing under the cover of darkness. After lowering the landing gear handle, Capt Wilkins observed the light in the gear handle was still illuminated, the gear warning horn was sounding, and all three landing gear indicated unsafe. Capt Wilkins contacted the Mountain Home AFB Tower and requested a low approach and visual check of his landing gear. Tower informed him that it appeared that the nose landing gear was down but because of darkness and the three Flightline Safety Award of Distinction

1C Bullock, A1C McKinney, SSgt Kennedy, and TSgt Regan were assigned to an F-16 aircraft tasked to complete an operations checks for an augmentor fuel filter leak check which required a high powered engine run on the trim pad. During the initial start up and 5-minute wait at idle prior to advancing the throttle to higher settings, there were no indications of a leak detected. The next part of the leak check required the aircraft throttle to be advanced to the intermediate position. At this setting there were also no leaks detected. The aircraft throttle was advanced to the mid-augmentor position. At this point the aircraft was in afterburner. The augmentor fuel filter had a few drops of fuel starting to show. At this time A1C McKinney and TSgt Regan began to inspect the area to pinpoint the exact location of the leak on the filter. It was during this time that the filter ruptured sending 20 to 30 gallons of JP-8 throughout the engine bay area and all over the ground while the aircraft was in burner. A1C McKinney and TSgt Regan recognized the immediate potential for a major mishap and took action. Within seconds, A1C McKinney alerted SSgt Kennedy, who was in the aircraft, of the danger of the fuel leak. SSgt Kennedy accomplished his emergency shutdown procedures and evacuated the aircraft. A1C Bullock who was fire guard for the engine run recognized the danger immediately and had the fire bottle in position and ready to extinguish the area if needed. TSgt Regan recognized there was still a potential for possible light off of the fuel that had flooded the engine bay and hot exhaust area and quickly notified MOCC of the incident and declared a ground emergency. All four personnel remained with the aircraft until relieved by the fire department. The action of these four individuals reflects greatly on their alertness and training and averted the potential loss of an aircraft.

A1C Michael Bullock, A1C Jacob E. McKinney, SSgt James M. Kennedy, TSgt Michael J. Regan, 20th Aircraft Maintenance Sqdn., 20th Fighter Wing, Shaw AFB, South Carolina
While the 366th Fighter Wing was engaged in an Operational Readiness Exercise, a ground emergency was declared for an F-16 aircraft with a massive fuel spill. An MJ-1 bomb loader had struck a 370 gallon external fuel tank during weapons loading operations and opened a hole 18 inches long and 6 inches wide in the nose of the fuel tank, allowing the fuel to spill on the parking ramp. TSgt Hurst, SrA Hernandez, and A1C Schoemann of the 366 CMS Fuel Systems Repair Section responded to the scene to offer assistance. Upon arriving at the scene, TSgt Hurst discovered that while several people were trying to contain the spill, they did not have the necessary equipment to prevent more fuel from being spilled onto the ramp and no one had taken charge of the area to coordinate the cleanup yet. He then took charge of the aircraft, evacuated all unnecessary personnel, and donned his Personal Protective Equipment with Amn Hernandez and Schoemann. After realizing that the fuel tank was suction defueling, TSgt Hurst located a fuel bowser and called for an over-the-wing defuel truck in an effort to prevent the spill from becoming larger. The fast action of the members of the Fuel Shop resulted in only 110 gallons of spilled fuel being cleaned up before it could damage the environment and prevented a fire that could have destroyed a valuable Air Force asset.


MSgt David A. Bothwell took Operational Risk Management (ORM) and put it into practical application. He led his 81 personnel as they maintained the demanding 24-month periodic inspection schedule, conducted their wartime tasking, supported the security forces in capture/recapture exercise, support Special Assignment Airlift Missions. He ensured zero mishaps during the performance of 12 24-month periodic inspections, 62 warhead limited life component exchanges, 41 missile diagnostic tests, and flawlessly maintained 191 pieces of nuclear certified test and handling equipment. MSgt Bothwell coordinated the required Permissive Action Link recode, shipment preparation, and receipt/verification inspections of 50 warheads. The extensive coordination of on/off load of weapons to/from the aircraft, delivery to/from the aircraft, and on/off load of the seven trailers within the Weapon Storage Area was noted as "Outstanding" by the aircrew. In preparation for the October 2003 Nuclear Operational Readiness Inspection, he was a main player in two aircraft generation exercises. GLOBAL GUARDIAN 02 was the last exercise to test our nuclear war fighting capability more than 10 months prior with many new people in key supervisory positions. The amount of munitions moved to/from the flight line during the two exercises in August and September 2003 was the most since before September 11, 2001 and went without error. He led his troops as they generated over 100 weapons packages. In an 8-day period, a combined total road weight of over 20,880,000 lbs was handled and transported. Because of the sound ORM decisions made throughout this period, zero safety incidents, zero accidents, and zero loss of equipment was experienced.

MSgt David A. Bothwell, 2nd Munitions Sqdn., 2nd Bomb Wing, Barksdale AFB, Louisiana
Flight Safety
Award of the Quarter

As the 27th Fighter Wing Chief of Flight Safety, Capt Matthew Davis transformed a “satisfactory” program rating during the previous HHQ inspection to “Best Seen to Date” during the recent 12 AF/Safety Staff Assistance Visit. He designed and implemented a new flight safety inspection program and developed standards and checklists for each of the various wing functionalities, ensuring all aspects of the flight safety program are covered by the “excellent” spot inspection program. He completed an exceptional re-write of the wing mishap response plan, redistributing numerous responsibilities in accordance with the objective wing structure and brokering acceptance by the newly formed units. He energized the Midair Collision Avoidance (MACA) program, highlighting Cannon flight operations to civilian pilots who fly in the area. He personally visited local airports and briefed flyers on ways to avoid conflict. His pilot-to-pilot talks and show of interest were very well received in the civilian flyer community. He pioneered a 27 FW Dedicated Crew Chief and Maintenance Orientation Flight Safety Training program. This “commendable” program developed flight safety awareness within the maintenance community and led to better mishap reporting. His well thought out mishap response kit design sets a new standard and received a “Best Practice” designation from 12 AF. Capt Davis oversaw investigations of 10 reportable incidents this quarter, receiving accolades for quality reports. Consolidating bird strike data from the last 8 years, he identified an increasingly negative trend during the summer months, which led to three separate commander-directed measures to reduce the threat. One action involved implementation of a bird depredation program, previously not instituted at Cannon AFB. He obtained the necessary permits, organized the depredation team, and monitored the effort. To increase safety awareness throughout the wing, he rejuvenated the safety awards program, submitting seven maintenance and two operations personnel for 27 FW/CC Safety Salutes and forwarded their actions to ACC for Awards of Distinction and COMBAT EDGE publication. His flight safety program results speak for themselves ... zero 27 FW Class A or B flight mishaps for FY03!

Capt Matthew E. Davis, 27th Fighter Wing
Cannon AFB, New Mexico

Ground Safety
Award of the Quarter

Mr. Peterson managed the “Outstanding Wing Ground Safety Program in ACC" this summer. He implemented a flawless 101 Critical Days of Summer Campaign, meeting the wing goal of zero fatalities for the summer months, and for the entire year. His weekly multi-media safety briefings to each unit throughout the summer brought into focus various hazards encountered throughout warm, active summer months. He placed imaginative safety placards at key intersections throughout the base, utilizing catchy safety slogans to reinforce the importance of keeping personal risk management at the forefront of summer activity. His “summer safety tips,” shown on the local access channel, highlighted summer safety throughout the community as well as on base. A short-notice, pre-Labor Day safety session focused the wing on personal risk management, DUI prevention, and supervisor/peer involvement in risk avoidance prior to the wing leaving on a long, 4-day weekend. He distributed “27 FW Weekend Flight Plans” base-wide to assist supervisors with tracking weekend activity. He developed and managed an ingenious agenda for the ACC End-of-FY Safety Day, “We are all airmen 24/7” He expanded the web-based “Cannon Cares” high-risk personnel program, which helps commanders monitor off-duty activities, to include safety briefings for high-risk activities like motorcycle and ATV riding. He personally ensured that the 27 FW captured COMACC command safety direction by recruiting the right mix of first term airmen and unit commanders to attend command ground mishap VTCs. His extra ground safety instruction and preparation for the ACC Logistics Standardization and Evaluation Team visit paid off as a “Best seen to date in ACC;” rating clearly demonstrated Cannon’s “Most Lethal” maintenance capability. He coordinated a ground-breaking off-road vehicle training program for all wing ATV and Dirt Bike riders. Within 3 days, Mr. Peterson assessed the wing need, formulated the plan, and scheduled training. The plan was forwarded ACC-wide for maximum effect. September’s 12 AF Safety Staff Assistance Visit lauded the “Best safety program seen this year,” but the true measure of his efforts are reflected in the results ... Cannon had zero Class A or B on-or off-duty ground mishaps during FY03!

Mr. Richard Peterson, 27th Fighter Wing
Cannon AFB, New Mexico
illiam, something is wrong! There are three Air Force officers coming up the walk."

"Don't worry, Martha, I'm sure everything is OK." (Knock at the door.)

"Mr. Jones?"

"Yes, I'm William Jones, and this is my wife, Martha. Come in. Is something wrong?"

"Mr. and Mrs. Jones, I am Lt Col John Kresek, this is Doctor Smith and Chaplain Sanders."

Mrs. Jones', voice trembling, cries out, "What is wrong with my baby? What's happened with my Joey?"

"Can we all sit down please? I have some difficult news. On behalf of the Chief of Staff of the United States Air Force, I regret to inform you of the untimely death of your son, SSgt Joseph J. Jones. He died on August 22, 2003, near Nebraska City, Neb., as a result of injuries received in a motorcycle accident."

I was quite shaken by these events and pondered what I could do to help my folks prepare their own effective risk management program. I remembered the excellent safety briefing TSgt Darren Shorty, the Offutt Safety NCO, gave during my in-processing briefing on the concept of personal risk management. He had humorously covered the actions required to "ACT" correctly and it stuck with me: Assess the situation, Consider the options, and Take the appropriate action. "It's not rocket science," Shorty reminded us, "But you do have to periodically run the checklist and make a conscious decision to do the right thing."

Here are some timeless principles I use in my checklist and I hope you'll use them too:

1. Wear your seat belt; it's the single most effective thing you can do to live through an accident.
2. Never drink and drive, and when you see someone who is trying to — stop him or her. It's better to jeopardize a friendship than lose a life. If you need a ride, call a friend. Call Airmen Against Drunk Driving, call a first shirt or a commander. Make a good decision while it's not too late... just don't let anyone drive drunk. By the way, if they are real friends, they'll thank you when they sober up.
3. If you drive a motorcycle, make sure you do it responsibly and know the rules. Be licensed, have appropriate insurance, wear the appropriate gear, and take the necessary safety training. Most importantly, drive defensively. Almost half of the safety-related deaths this summer involved young airmen with less than 6 months experience on motorcycles.
4. Pay attention to conditions: What is the speed limit? What are the road conditions? What are the weather conditions? How tired am I? Based on this, should I drive? ACT... Assess, Consider, Take appropriate actions.
5. Check safety equipment/plans: fire alarms, evacuation plans, go over rally point procedures, replace flashlight batteries and know where fire extinguishers are placed. As the saying goes, an ounce of prevention is worth a pound of cure.
6. Lastly, let's all reaffirm our commitment to do the right thing. Have moral courage to correct unsafe acts you see. Practice good safety in the workplace and at home. The life you save could be your own.

We can all be very proud of the outstanding contributions we've made to the Global War on Terrorism. Each of us is an important cog in the ACC wheel of air power. The ACC commander has repeatedly said, "People are our most important priority." We all have a responsibility to promote safety practices that protect our people. Every airman, NCO and officer must see himself or herself as a critical link in an effective safety chain. In closing, one last thought: Safety, like service before self, is a 24/7 operation. Safety now? You bet. It's your job! Let's spare your loved ones from that terrible knock on the door.
Without warning, the engines roared all the way to full power.
here I was, ready to give my all in a remote Middle Eastern country in support of Operation IRAQI FREEDOM. Unfortunately (for numerous seat pads and armrests), the sacrifice was almost made before we touched down at Base X. While on a contract civil airline flight, our entire squadron very nearly became a grease spot short of the Base X runway ... in the desert ... a long way from home.

It all began with the standard deployment routine: packing bags, standing in lines, and getting our requisite immunizations. There was quite a bit of speculation as to what means of airlift we would endure as we traversed the globe en route to our base of operations. We openly hoped it wasn't the hellish and eternal pain of flying in a dark interior equipped with the sadistic devices known as troop seats. Even airline calculating that the powers that be had actually procured transport for us via a major airline. This sounded way too good to be true — since when has traveling via the main body of a deployment ever been anything but a grueling test of human endurance? The departure time slowly crept nearer, and the airlift rumors were solidifying into reality. A wave of relief swept through the huddled masses when the main Body Officer In Charge (OIC) announced that, within the hour, we would, in fact, be boarding a contract Boeing 777 operated by a major U.S. airline. As we boarded the passenger buses lined up to take us to the jet, the anticipation of riding in high-class comfort en route to the war buoyed everybody's spirits.

In the chaos of stowing carry-on luggage, selecting seats, and settling in for the trip, everybody marveled at the relative opulence of the cushy 777 with all of its high tech amenities. This was actually going to be a pleasant trip despite taking nearly 24 hours. The takeoff was uneventful and we soon left the brown starkness of the desert behind. Life aboard this capsule of luxury consisted of surfing through the various movies available on the TV mounted on each seat, listening to music, or exploring the various other features of the 777. The flight crew was very friendly and allowed us the run of the entire aircraft; something quite out of the ordinary on board a commercial airline. We took full advantage of the freedom to visit the cockpit and talk flying with the pilots who were more than willing to show off their futuristic office.

Not only were both pilots very experienced, but the Pilot in Charge (PIC) was also the airline's most senior 777 captain who was about to retire in a couple of months. With this kind of skill flying us across the pond, we didn't have anything to worry about. Since the jump seat was open, the pilots allowed one of us to sit up front during each takeoff and landing — yet another bonus of this flight which was rapidly exceeding all our expectations.

After a couple of stops for refueling on the way, we finally were nearing our final destination. The mood was becoming more somber as the reality of having to leave the stylish high-class living we had been enjoying began to set in. Looking out the window into the darkness of the clear night, there were few lights to be seen, indicative of the desolation of the country in which we were about to find...
We dutifully complied and the interior became dark with the only light coming from the emergency lighting system. This was beginning to sound serious.

Totally blacked out, the jet continued its descent into the destination base and, in typical fashion, all the pilots in the back were following the approach mentally. Despite the low situational awareness one would associate with being sealed in a dark metal tube hurtling through space, we could definitely tell when the jet was lined up on the final approach by the distinct thumping of the landing gear extending into the slipstream. In the initial stages, everything was normal as we seemed to stabilize on glidepath.

Without warning, the engines howled as the power went all the way to full and the jet abruptly pitched up. Hmmm ... were we taking it around for some reason? A few eyebrows were raised among the aviators when just as suddenly as the power was added, it was again pulled back and the nose lowered. Well, maybe it was just a LARGE correction back to the glidepath — "Surely, such a senior flight crew knows what they are doing." Right? Continuing down final most of us had returned to lamenting the impending finish to this heretofore enjoyable trip when ... What the ?!? Another huge surge of the engines and the nose sharply rose. This HAD to be a go-around since it felt like we were really hanging on the fans at slow speed clawing for altitude. In the passenger section, concerned looks were being exchanged and more than a few white knuckles had appeared. In a nearly identical re-enactment of the first correction, the aircraft again pitched down to apparently continue the approach with the engines spooling back. This time, nobody was going to be relaxing any time soon. A solemn hush had fallen across the crowd in the dimly lit cabin.

For the THIRD time??!!? We have to be low to the ground! Who, if anybody, is flying this thing?? Just as everybody's life finished flashing before their eyes, the jet began to level out as the wheels hit the runway with a sharp jolt. When there were no loud sounds of crumpling and tearing metal, we all gave a guarded sigh of relief. Now all we had to do was make it from the runway to the ramp alive.

After the dramatic arrival, the taxi back and shutdown were totally uneventful. As people began unbuckling and standing up, the lucky (unlucky?) squadron member who was sitting in the jump seat emerged from the cockpit looking somewhat disheveled and shaking his head in amazement. Later, as we waited to in-process at our destination base, we got the rest of the story from this observer in the cockpit.

It seems that our intrepid flight crew, in the process of setting up for the approach into our deployment base, mistakenly dialed up the navaid frequencies for the international airport in the capital city. They could not figure out why the instruments did not match with the vectors to final the radar controllers were giving. Our man in the cockpit, watching the initial stages of this clown act develop, saw the two experienced airline pilots puzzling over the disparity amongst navaid indications and the vectors they received. Amazingly, he did not speak up and tell them they had everything set up for the wrong airfield because he didn't think his voice should be on the cockpit voice recorder when the investigation board showed up.
As a result of having the wrong setup, the flight crew could not fly the typical autopilot coupled approach on final, so, because they could see the runway lights in the black desolation of the desert, they decided to John Wayne it. Undoubtedly, a hand-flown night approach into a strange field in a foreign country, using only the runway lighting for reference, was not something in which this 777 crew was particularly current. There was some discussion between the two pilots regarding the proper interpretation of the visual approach slope indicator lights. They apparently didn't quite have it figured out. They did, however, recognize that the lights all going red is a bad thing. In fact, they recognized this three separate and distinct times, as evidenced by the dramatic maneuvering we experienced on final. According to our eyewitness, when the third major glidepath correction ended with the sharp impact of wheels on (maybe) brick one of the runway, the pilots exchanged wide-eyed looks of surprise. Evidently, the touchdown was a tad shorter than expected.

There are three main lessons we can all learn from this incident.

If something doesn't look right, it probably isn't. We had a very experienced flight crew who, whether through unfamiliarity or lack of approach plate review, dialed up the incorrect navaids. Instead of taking the time to sort the situation out, they decided to shoot from the hip and fly down final manually, which is probably not done very often with an aircraft as highly automated as the 777. Adding to the problem, they did not have instruments backing up the minimal outside visual references. With the fatigue of the long flight across the ocean, this may not have been the smartest idea. Task prioritization is a Special Interest Item (SSI) we brief before every flight, but how often do we actually consider its practical application? Had this 777 crew prioritized solving the navaid problem over getting the aircraft on the ground with little to no approach references, we may not have been put in the resulting precarious situation.

Don't be afraid to speak up when a dangerous situation is developing. The military pilot in the jump seat did not speak up because, not being part of the crew, he didn't feel it was his place to say anything. When your life is on the line, and you see a problem developing, you need to voice your concern. In this case, something as simple as identifying the correct navaids would have precluded a situation which could have easily been disastrous. When we brief Training Rules (TR), we talk about calling a "Knock-It-Off" if we see a dangerous situation developing. In this case, had the observing pilot spoken up, most of the confusion and subsequent approach buffoonery could have easily been avoided. We also need to remember that "Knock-It-Off" is a call that does not just apply to flying, but also to any situation where we see something dangerous developing which does not meet the common sense test.

In a war, getting shot is not the only danger. In the first Gulf War, there were more people hurt and killed during Desert Shield than during the actual hostilities. Here, we could have easily lost the majority of a fighter squadron en route to the Area of Responsibility through minor inattention. When people get to a war zone, the tendency is to minimize the rules and regulations we normally observe during peacetime, but this is exactly the time when we need to be more conscious of the need to mitigate risks. When in a new operating environment, going back to the basics initially gives us the opportunity to concentrate on the different procedures and restrictions without the added task loading of an unusually complex mission. Just as we are all taught in pilot training, when all else fails: Aviate, Navigate, Communicate.

Editor's Note: Maj McCollough is an F-117A pilot attached to the 8th Fighter Squadron.
How many times have you noticed the warnings on the visor of most new cars? I never paid much attention to them either, but fortunately at an early age, I learned to always buckle up anytime I was in a vehicle and have instilled this habit into the entire family.

Several months ago on a typical Monday evening, my family packed up in our van for the shuttle back and forth between music lessons and orchestra practice. That night, there were two things out of the ordinary, my wife was driving so that I could work on a briefing, and we weren't traveling our normal route since we needed to pick up a replacement string for our oldest son's cello.

Traffic wasn't too bad for that time of day. The traffic lights were turning green well before we reached any intersections.

For some reason, I happened to look up from my laptop. There was a car coming from our left and running the red light. I tried to warn my wife, but it was already too late. The car hit on the driver's side of our van and pushed the rear end of the van around. Everything seemed to be going in slow motion after the initial impact. As we were being turned around, the van began to tip over sideways. All we could do was hang on for the ride and wait for everything to come to a stop.
While we were going over, I recall hearing two separate and distinct "thuds." This seemed to make sense—one when we hit the side and the other when we landed on the top. We found out later that one "thud" we heard was the back end of the van hitting another car that was traveling south, right where the window rolls down into the door. The other was when the van flipped onto the roof, completely missing the passenger side except for the very top of the doors. When the van finally came to rest, we were upside down and facing east, meaning that we had been turned 270 degrees and flipped over. I still haven't figured out how we ended up the way we did.

After everything came to a halt, I unbuckled and tried to get oriented. It's a strange sensation getting spun around and turned upside down. My immediate concern was to get everyone out of the van because there was a distinct smell of smoke. We figured out later the smell was from fluids leaking out onto the engine. Fortunately for us, some campus security officers were three cars away and let us know there wasn't any fire. I unbuckled my wife who checked on our 3-year-old who was sitting immediately behind her. He had been asleep and was in shock from the accident. She was able to get him unbuckled. One of the officers, who had partially crawled in through one of the broken windows, helped her. While our toddler son was being tended to, our other son, who was also sitting on the driver's side, unbuckled himself. All of us were able to crawl out of the shattered passenger side middle window.

The injuries we sustained were minor for the most part, mainly sore muscles, and a few scratches from the seat belts and broken glass. The severest injury was to my wife who suffered a concussion and possible spinal compression after the roof was crushed.

The car that hit us, which was driven by an 18-year-old student, struck us square on the center door where our youngest son was sitting. The only injury he suffered was a small scrape on his lower jaw from the clasp on his booster seat. No one in either of the other vehicles was injured. Everyone's injuries could have been a lot more severe, if not fatal, had we not been wearing our seat belts. I hate to think what would have happened to our youngest had he not been properly restrained in his booster seat with a five-point harness. Talking to the paramedics and the police, they said that there is no way anyone should have walked away from our van, but we did.

Many people think, "It will never happen to me; I'm a good driver." The one thing that everyone must keep in mind is that "there are other drivers." The best way to protect yourself is to make absolutely certain that before any car is put into motion that everyone in that car is buckled properly. Especially for those with young children, make the investment in a good car seat or booster seat and make sure it is installed and used properly. Not only will it potentially save their lives but also save you a lot of grieving...
Fleagle

WHAT ARE YA' READING, TINY?

JUS' SOME STUFF 'BOUT TRAINING...

BACK TO BASICS T'BE EXACT.

IT SEEMS THERE ARE STILL SOME WHO FAIL TO SEE TH'NEED TO STUDY STUFF COVERED IN THEIR FIRST MONTHS OF TRAINING.

HISTORY HAS POINTED OUT THAT MOST DON'T PAY ATTENTION TO RISK MANAGEMENT AN'SAFETY RULES.

AN' THESE ARE TH'ONES CAUSIN' MOST OF THE TROUBLE?

BUT HOW DO WE KNOW WHO THEY ARE?

SOME ARE EASIER TO SPOT THEN OTHERS.
Mishap Statistics Scoreboard

FY04 Aircraft As of November 30, 2003

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FY04 Ground As of November 30, 2003

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FY04 Weapons As of November 30, 2003

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Aircraft Notes

Your involvement in flying safety has made a difference in FY04 even with the A-10 Class A during November. The good news is the pilot safely ejected and will be around to be in all the holiday festivities. With that in mind, allow me to plagiarize a few aviation rules which should enable you to "check yourself before you wreck yourself." There are three "Don't Run" in aviation rules: 1) Don't run out of gas. 2) Don't run into your flight mates or any other airborne objects, and, 3) Don't run into the ground or anything attached to it. When stated so simply, these rules sound easy. And the fact is, they are easy when they are prioritized properly. They become markedly more difficult when we get saturated or complacent. Check yourself by prioritizing correctly to make sure you don't commit a "don't run" error or wreck yourself. Fly Safe.

Ground Notes

ACC experienced two PMV4 mishaps during Nov 03. In one mishap the individual failed to stop at an intersection and struck a dirt embankment. The other 4-wheel mishap occurred when the operator lost control on a mountain road and drove off a 150-foot drop on the mountain side. Don't let your guard down, winter weather is upon us.

Weapons Notes

This quarter there were three mishaps. One was the result of mishandling crated munitions resulting in 2,400 dollars in damage, (preventable), one sub-scale UAV mishap, and a suspect lot of 7.62mm ammo. I want to challenge everyone who handles, stores, and works with explosives to take a look at your practices and procedures and ask yourself where the next mishap might occur!

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 $50,000 and $200,000
* Non-rate Producing
Being involved in everything from homeland defense to Operation IRAQI FREEDOM, munitions professionals have achieved historically low mishap rates in challenging conditions and under a heightened operations tempo. This month's cover is dedicated to the men and women of the munitions career field.