Protecting the Force

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LIVING WITH THINGS THAT ARE NOT QUITE RIGHT

Recently, an ACC Senior Airman was killed while trouble shooting a dump truck problem. He took an unwarranted risk and placed his body underneath the bed of the dump truck that subsequently closed and crushed him. While the mishap was the result of bad judgment, it was set up by a 1989 local modification of the dump truck that installed the hydraulic control valve and Power Take Off (PTO) in reverse operation of the norm for dump truck switches. Additionally, the placards and warning lights in the cab were reversed so they did not match the controls.

COMACC’s question after the mishap briefing was “Just how many of these kind of things are we living with?” From a safe staff-job desk it is impossible to tell, but we have no doubt that there are a number of things in our ACC units that are just waiting for the right combination of events to hurt someone.

In order to identify and correct these kinds of deficiencies, we need for each organization to have a process in place that encourages our folks to actively report the things that are not right. Also, commanders, supervisors, and safety personnel need to set a climate that encourages reporting and correcting defects. It is a fundamental responsibility of command to provide our personnel a safe working environment.

Perhaps we all can learn a lesson from the sad loss of this Senior Airman’s life and be a lot less tolerant of those things that are “not quite right.”

Colonel Kevin W. Smith
Chief of Safety
Protecting the Force
By Maj J. A. Legere, Langley AFB, Va.

A n audible gasp of surprise escapes from the group of Security Forces (SF) members standing behind the firing line as the Mark 19 Grenade Machine Gun unleashes a barrage of 40 mm high explosive fiery death upon its target. Each gun burst is echoed by a more pronounced explosion downrange. You can actually feel the concussion in your chest as the puffs of black smoke obscure the shattered remnants of an armored personnel carrier.

When you are dealing with such firepower — including the .50 caliber heavy machine gun, the M203 Grenade Launcher, the Stet M-60 Machine Gun, and the M249 Squad Automatic Weapon — mistakes can cost lives ...
Whether handling high explosive ammunition or instructing on the finer points of defensive operations, the SF instructors ensure strict adherence to safety regulations and guidelines.

For many of our SF members, this is the first time they have witnessed, firsthand, the awesome combined firepower of the weapons systems they will use to defend air assets in deployed locations. More importantly, each will have the opportunity to get "trigger time" on actual weapons as part of Air Combat Command's (ACC) SF Expeditionary Readiness Training (ExpeRT) program conducted in Nevada. As part of the curriculum, each trainee will fire every weapon in the SF inventory to gain a full understanding of its capabilities, limitations, and safe employment of the weapons used in air base defense. The Nevada desert not only offers ACC's only full-distance firing ranges, but its stark, arid landscape is a very realistic preview of some of the locations to which these defenders will deploy ... and that's what makes this program so valuable.

The ExpeRT program, conducted by the 99th Ground Combat Training Squadron (99 GCTS) at Indian Springs Air Force Auxiliary Field, is designed to certify SF teams deploying as Aerospace Expeditionary Forces. ExpeRT focuses on unit teaming and brings together SF units earmarked for deployment and training.

On site, these units are trained in weapons proficiency, ground combat skills, tactics, and leadership. The training hones the defensive skills SF forces will
need to protect forward air bases located throughout Southwest Asia and in the Middle East.

The Nevada desert can be very unforgiving and gives realism to the training. This rocky terrain is covered with deep wadis that make navigation difficult. Add to this the abundance of dangerous flora and fauna — cacti, yucca plants, Joshua trees, rattlesnakes, scorpions, and spiders — and the propensity for injury when training on ground combat skills increases dramatically. Safety is therefore a key consideration throughout this intense training program. Whether firing weapons on the range, engaging hostile forces (a role played extremely well by the 99 GCTS instructors) in the Military Operations in Urban Terrain or MOUT training facility, or defending Indian Springs Air Field during the concluding 3-day field training exercise, the training emphasis on safety is constant. Through months of careful Operational Risk Management planning and coordination, the risks are reduced significantly. The staff pours over maps of the base, planning different scenarios to simulate, as closely as possible, the conditions that SF forces will face on deployment.

The defense of installations is a key component of the Air Force mission. Without adequate security, operations stop. SF members will continue to play a critical role in this security — ensuring that the U.S. Air Force can fly, fight, and win. Training for this mission is vital to success. The ExperRT program is designed to deliver this training and, in doing so, give them the combat edge — safely!

power — mistakes can cost lives ...

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You Are Not Cleared for Takeoff!

By SSgt Michael J. Roxberry, Jr., Langley AFB, Va.

"You weren't cleared for takeoff!" are the last words a pilot wants to hear after he departs an airfield. Over the past few years, runway incidents of this type have been on the rise. This is due in part to miscommunication and in part to the loss of Situational Awareness (SA) — sometimes both have a role. No matter what the cause is, it is a growing problem. Such a case happened just last year at Langley Air Force Base, Va. I was an air traffic controller and had the opportunity to observe firsthand what happened.

It was daytime and Visual Flight Rule (VFR) operations were in effect. A flight of four F-15s was put into position and hold on the runway. At the same time, Pacer 19, a C-21, was positioned on a taxiway, which was located 1,900 feet from the approach end of the runway the F-15s were on. This is a standard practice in Air Traffic Control (ATC) that expedites the flow of traffic. In order to minimize the delay for the C-21, the local controller requested a release from Norfolk Approach for Pacer 19 instead of the F-15s. If the F-15s had departed first, Pacer 19 would have had to wait 3 minutes to comply with wake turbulence separation requirements.

When Norfolk issued the release, they also assigned an altitude restriction of 2,000 feet to account for an aircraft crossing west of the airfield at 2,500 feet. Local control passed the takeoff clearance and altitude restriction to Pacer 19. The C-21 began to roll for departure and had just crossed the VFR hold line when the flight of F-15s started their departure roll. The local controller immediately saw the problem and got on the guard frequency (a frequency that can be heard by all aircraft no matter what other frequency they're on) and told Pacer 19 to hold short of the runway. Pacer 19 was able to stop as the F-15s continued their takeoffs.

The crisis was not over. Because of the confusion, local control was not sure if the F-15s had heard the altitude restriction. It was in effect no matter which aircraft departed Langley. However, attempts to contact the F-15s on the guard frequency were not successful (it is still not clear why this happened). Local control's concern was justified when the F-15s climbed directly to 4,000 feet. Luckily, the aircraft crossing at 2,500 feet was further to the north and did not pose the collision hazard that had been feared.

Because the F-15s were holding on the runway, it is believed that they anticipated that the takeoff clearance would be issued to them, not the C-21 on the taxiway. This anticipation blocked out the call sign and the altitude restriction. All they heard was "cleared for takeoff." Miscommunication and a lack of SA played a major role in this case. While no one was injured and no property damage occurred...
in this particular incident, the end result could have been much, much worse.

It is imperative that we do everything we can to decrease the chances of something like this happening again. Increased training is the most important step in that direction. By enhancing the knowledge levels of both pilots and controllers, everyone can become more aware of the possible hazards and the type of situations in which errors are likely to occur. This will increase everyone’s SA, which is bound to decrease the incidents of miscommunication.

In the past, most communication errors between pilots and controllers have happened because of poor or improper phraseology. There are a couple of publications in circulation that establish the proper phraseology for both pilots and controllers: the Federal Aviation Administration 7710.65 (contains ATC phraseology) and the Aeronautical Information Manual or AIM (contains pilot information). These publications have been designed to reduce the chances of miscommunication between pilots and controllers, but it is not the only way.

Langley Tower personnel took some initiative and changed their standard operating procedures for aircraft in position awaiting departure. Prior to this incident, there were no procedures set forth pertaining to this type of situation. Now, Langley ATC’s new operational risk management procedure requires the local controller to issue traffic to the waiting aircraft on the planes departing in front of them. This small change almost eliminates the possibility that someone can take off without a clearance. This change also helps the pilots maintain SA by keeping them abreast of the situation that is happening. Everyone is kept in the loop, and the chances of miscommunication are reduced.

Reducing miscommunications and maintaining SA creates a safer environment for everyone. Situations similar to this one happen all over the United States every year. Sometimes aircrews are not quite as lucky. The next time planes are taking to the sky, keep the lines of communication open and pay attention — lives may depend on it!
After an extended break in my two-ship, flight lead upgrade training program for the A-10, I was scheduled for some X-rides with the squadron commander. I briefed a fight-tank-fight scenario with the boss on my wing. For some reason, I just knew that Murphy was going to derail what had been planned and briefed, and I was not disappointed. Due to several red balls on the boss’s jet, I finally took off as a single ship, hoping to salvage some of the remaining range time we had scheduled. Shortly after exiting the range, I was told via a long distance call on Very High Frequency (VHF) information I needed to coordinate a landing extension.

When we had rejoined with our tanker, I proceeded directly to precontact and cleared my wingman to an observation position. As is often the case when coordinating A-10s, a heavy tanker, and 20,000-plus feet, I had to request the tanker slow to 190 knots before I could get on the boom. This put me about 100 pounds above bingo fuel. The actual hook-up and fueling were one of the more smooth tanking experiences I have had.

Then the event occurred — or rather didn’t occur — when I had finished and was ready to disconnect. I called for a disconnect over the boomer’s frequency and depressed the air refueling disconnect/reset button (commonly referred to as the alternate pickle button) to actuate a disconnect, but nothing happened. Curious as to why, I immediately crosschecked that I had depressed the correct button and queried the boomer, “Boomer did you actuate a disconnect?” The immediate “Yes” was not the answer I wanted to hear. Now I was sure there was a problem and settled in for what would turn out to be a very long ride.

Analysis of the situation tallied the following: I was stuck on the boom; I could still take on gas; my wingman was an Instructor Pilot (IP) with over 3,000 A-10 hours and 3-plus hours of gas; another flight with a second IP had joined the tanker; and, best of all, it was a clear in a million day. By this time, my wingman and the other IP had gotten into their DASH 26 checklists and were searching for a solution. I was triple checking my switches and querying the boomer for indications on his instruments. As we covered what little there was in the checklist pertaining to my situation, the other flight hit bingo and had to return to base.

At this point, we had established the following: The tanker...
been resolved prior to resorting to the only option we felt we had left — a “brute force” disconnect.

Because “brute force” disconnects were not covered in the checklist, we relied on the radio relay for the procedure. I now had the beginning of a plan. The biggest decision remaining was whether to accomplish the procedure in the track, which is just east of the coast (a completely unpopulated area) and near Cherry Point Naval Air Station, N.C., or to have the tanker drag me back to either Pope or Seymour Johnson Air Force Base, N.C., and accomplish the procedure at home plate. We decided to do it in the track and use Cherry Point as an emergency landing option.

While preparing for the disconnect, I had the following concerns on my mind: Excessive fuel may spray causing electrical malfunctions or worse — a fire; the debris of a broken boom might cause an engine to seize; or a piece of the boom remaining in the receptacle might obscure my vision. The tanker crew provided guidance while my wingman monitored my jet. I lowered my seat, mentally went over engine failure or fire procedures, and then executed per the instructions relayed from the operations desk. Again, nothing happened. The tanker connection was so strong that they were now dragging my aircraft, which was in idle power. This forced one of the two remaining options: I could slowly open my speed brakes or the tanker could accelerate. We decided to use the tanker option, and they slowly accelerated, increasing both of our airspeeds 15 knots before my jet eventually let go.

The final actions were uneventful except for the drastic falling sensation that comes when an idling jet being towed at 20,000 feet is let go. When it was all said and done, I spent over 2 hours on the boom! While that updated my tanker currency for a very long time, it also prompted me to think through exactly what had happened and what could have happened. I came to the following conclusions ...

First and foremost, an in-depth knowledge of your weapon system is a must. While pilots carry checklists for both normal and emergency procedures, they only contain the abbreviated version of essential information that other pilots have previously experienced. When you have an aging airframe like the A-10, new and different problems arise all the time. When the checklist does not cover an emergency like I had, it is the systems knowledge that we arm ourselves with prior to takeoff that makes the difference.

Second, we need to document unusual occurrences. Cross talk within and between fighter communities, as well as with the other platforms we depend on, has considerable value. I found out through later discussions with the KC-135 refueling unit that they had handled similar experiences with other airframes. Earlier in the year, they had broken a boom off in an F-15C. They also shared with us the optimum A-10 angles for a “brute force” disconnect.

Finally, this whole experience led me to explore a multitude of “what ifs.” I now use these possible contingencies in my briefs before each and every sortie. For example, what if we had been in the weather and I needed to send my wingman to trail to read his checklist; or what if I had been en route to the desert and nowhere near a divert; or what if I had been a single ship with no one to read the checklist to me coupled with no capability to execute a Conference Hotel. I was fortunate enough to have most of these cards fall in my favor, but I feel I will be much more prepared for future unexpected emergencies by contemplating many of the other more sour courses the experience could have taken. Bottom line: When flying fighters, you have to be ready for anything!
I was headed to Texas on temporary duty. As I sat in one of those big airports, waiting for a long layover to end, I began watching the baggage handlers down below. They move real fast and can load up a jet Pretty Darn Quick (PDQ). Anyway, I was watching these guys driving around for about 30 minutes when I started to look at something else down there in the loading area: Yup. FO! You know, Foreign Objects that can lead to Foreign Object Damage (FOD)! The funny thing was, it wasn’t on the ground exactly.

The guys had thrown it onto the roof of the baggage entryway, which was just below my eye-level. I counted 13 pieces of trash there on that roof: a shampoo bottle, shards of wood, and five broken luggage castors. You could tell some of it had been there quite a while by the color of the wood and the amount of rust. “Man!” I thought, but that was about it. A couple of hours later (yeah, I know — I’m kinda slow) it hits me, “Steve, you’re part of the FO problem because you didn’t take any action!”

Well, as luck would have it, on my return trip to Minot Air Force Base, N.D., I was sitting in another big airport on a layover, staring out the window and watching the baggage guys — did I mention that they can load up a jet PDQ? Anyway, I’m watching the baggage guys and — Yup, you guessed it — there it was again: FO! Except this time, it isn’t on the roof. It’s below the window about 30 yards directly in front of my Boeing 757. There was gravel and assorted pieces of trash just sort of strewn up against the building. While they did have a FOD can, it was overflowing!

Remembering my failure to act a couple of weeks earlier, I asked the gate receptionist for a comment card. There weren’t any. But luck intervened, and I met a supervisor. I introduced myself and told her what I had seen. In addition to all the FOD along the building, I also pointed out a “possessed” Styrofoam cup that was doing everything it could to get ingested into one of the jets that kept taxiing by. Well, that lady went right down there and had one of the baggage handlers retrieve that cup. One small step for FOD ... Well, you get the picture.

After a couple of hours on a weather hold, I was on the jet, making my way back north. As we taxied along I watched the vortices, like little tornadoes, sucking water off the ground beneath the engines and knew that, because of me, there was one less piece of FO on that airfield. How about you? Make a difference in the fight against FOD. It isn’t just a cup; it is an attitude.
It was another cold winter day in Grand Forks, N.D. I was sitting back thinking about my upcoming Christmas leave when the phone rang. It was my buddy from 15th Air Force Safety asking about the availability of investigating officers for a Class A mishap. No problem. As Chief of Safety, I had my Flight Safety Noncommissioned Officer call to find out who was on hand throughout the wing. The operations tempo was high as usual, but I just did not realize how many of my potential Safety Investigation Board (SIB) members were already deployed. In fact, we were down to only two trained Investigating Officers (IOs) and both resided in my office: my last remaining Flight Safety Officer (FSO) and me. Reluctantly, I called my 15 AF buddy and explained that I only had one IO available—my FSO, and if he really couldn’t find anyone else, then he could stick me on the list as a secondary or alternate. I figured that there was little chance a Lt Col would be selected. Anyway, conventional wisdom dictates that the new guy out of school is your best pick, right?

Later that morning I was working with our wing Inspector General when I received a call from my wing commander warning me that I was on the “short list” for IO. Of course, I had to ask what that meant. His response, “You’re the primary pick not yet approved.” Wow! I changed gears and called Headquarters Safety to ask about my status. The action officer working the board said that the list had been sent to the vice for approval, and I should know in 30 minutes. Sure enough, 30 minutes later I got my formal notification. I called a quick office meeting and explained that I would be leaving the next day, and needed that dusty IO kit.

My destination: Kuwait. That meant a quick check with wing mobility, the personnel readiness unit, and the medical folks to validate that I had all the necessary blocks filled before departing. The FSO and a senior civilian would share office leadership in my absence. I knew both were quite capable of running things. The next day I was en route to my SIB. I spent approximately 10 days in Kuwait and then returned to Little Rock, Ark., for the completion of the SIB. I discovered that the process and level of effort for a SIB certainly has not changed, but I was once again...

Once you have been awarded an “S” prefix, you need to be ready to investigate a mishap on short notice.
blessed with a great team of folks who got to the root of the mishap.

What else did I learn from this experience? First, once you have been awarded with an “S” prefix, you need to be ready to investigate a mishap on short notice. Second, ensure that those wing interim SIB members on your list understand that they are always potential SIB members. This means they need good, realistic training to prepare them for the worst — membership on a SIB. Third, it’s vital your Safety staff is well trained to provide immediate and timely support to selected SIB members. Fourth, it’s important that Safety offices keep track of the availability of potential SIB members. With high deployment rates, it’s easy to put yourself in a position where you don’t have enough trained members to support even an interim SIB, much less a SIB tasking from your major command.

In retrospect, everything worked out in the end. I got recurrent in investigations, and my office got some tips on refocusing our SIB training effort. Preparation is key to this vital safety function. It’s a duty that is well worth the effort!
Primary function: Tactical fighter • Contractor: McDonnell Douglas Corp. • Power plant: Two Pratt & Whitney F100-PW-220 or 229 turbofan engines with afterburners • Thrust: (C/D models) 23,450 pounds each engine • Wing span: 42.8 feet • Length: 63.8 feet • Height: 18.5 feet • Speed: 1,875 mph • Maximum takeoff weight: (C/D models) 68,000 pounds • Ceiling: 65,000 feet • Range: 3,450 miles (3,000 nautical miles) ferry range with conformal fuel tanks and three external fuel tanks • Crew: F-15A/C: one; F-15B/D/E: two • Armament: One internally mounted M-61A1 20mm, six-barrel cannon with 940 rounds of ammunition; four AIM-9L/M Sidewinder and four AIM-7F/M Sparrow air-to-air missiles, or eight AIM-120 AMRAAMs, carried externally. • Unit Cost: A/B models - $27.9 million (fiscal 98 constant dollars); C/D models - $29.9 million (fiscal 98 constant dollars) • Date deployed: July 1972 • Inventory: Active force, 396; Reserve, 0; ANG, 126.
Pilot Safety
Award of Distinction

First Lieutenant Peter Henrikson was the red air F-16 on a flight lead upgrade ride with weather solid from 5,000 to 20,000 feet Mean Sea Level (MSL). While holding at 25,000 feet MSL, he noticed his altitude and airspeed information had disappeared from the heads up display. Shortly after that, his inertial navigation system quit working. After unsuccessfully resetting his Flight Control System (FLCS), 1Lt Henrikson noticed a FLCS warning light on his panel. Realizing the severity of the multiple malfunctions, his flight lead declared an emergency for the flight and began a descent through the weather towards Hill AFB, Utah. While attempting to maintain position on his flight lead's wing, 1Lt Henrikson noticed his speed brakes had also failed. Once below the weather, 1Lt Henrikson attempted to configure his jet for landing, but the landing gear handle would not lower. After going through the checklist, he was able to successfully lower the gear handle. He did not, however, get the three green lights in the cockpit that indicate all three gears were down and locked. While on final approach, he noticed the airplane was not handling normally at final approach speeds. He then saw his leading edge flaps were not extending at all, causing the airplane to buffet on final. 1Lt Henrikson instinctively attempted to extend the flaps manually, however the flaps were completely inoperative. He immediately pushed the power up slightly realizing a significant increase in speed would be required with no leading edge flaps. Despite all these failures, 1Lt Henrikson executed a flawless approach and landing. Once the airplane was at a safe speed, he attempted to engage the nose wheel steering and realized it had also failed. Using only his brakes to steer the aircraft, he was able to stop the aircraft on the runway. 1Lt Henrikson's superior situational awareness and outstanding airmanship prevented the loss of a valuable aircraft.

Ground Safety
Award of Distinction

Recently, members of the 20th Intelligence Squadron at Offutt AFB, Neb., faced an extremely hazardous situation when they exited their facility. The main entrance opened directly onto a street frequented by large trucks and vehicles. The door actually hung over the street when opened. To compound the problem, vehicles parked directly across from the main entrance, forcing traffic to drive within inches of hitting the door. The squadron immediately recognized the danger to pedestrians leaving the building and submitted a USAF Hazard Report. In response, the base placed two bright yellow 6-foot stanchions at the entrance and painted no parking stripes within 50 feet of the entrance. These actions greatly reduced the hazards for the 82 squadron personnel and numerous visitors that need to access the building.

ACC Safety is Proud of All Our Award Nominees

Lt Col Martin M. Little
186th Fighter Squadron Commander
120th Fighter Wing
Great Falls, Mt.

Capt Frank J. Lobush, Pilot
1Lt Shane R. Smith
Weapons System Officer
335th Fighter Squadron
4th Fighter Wing
Seymour Johnson, AFB, N.C.

Capt Sean Williams, Aircraft Commander
1Lt William Wallace, Navigator
MSgt Steve Grossett, Flight Engineer
1Lt Jason Rubenstein, Copilot
Maj William Tully, Eval Navigator
Capt Keith Udeoff, Instructor Navigator
965th Airborne Air Control Squadron
552nd Air Control Wing
Tinker AFB, Okla.

SSgt John C. Palmer
SSgt Edward R. Genoit
SrA Ethan J. Hayes
A1C Joseph W. Skinner
Dedicated Crew Chiefs
421st Fighter Squadron
388th Fighter Wing
Hill AFB, Utah.

SrA Daniel Carroll, HC-130 Loadmaster
71st Rescue Squadron
347th Rescue Wing
Moody AFB, Ga.
Aircrew Safety
Award of Distinction

After completing their operational mission, the B-1 crew began the 6-hour cruise back to the forward operating location. They rendezvoused with a KC-10 for post-strike air refueling. After establishing normal contact, the boom was unable to latch onto the air-refueling receptacle and fuel began streaming heavily over the windshield. Cockpit visibility was severely restricted by the leaking fuel. After both aircraft recycled their systems, the B-1 still could not latch onto the boom and the fuel leak became increasingly severe. Since the crew did not have enough fuel to return to the deployed location, they opted to divert to Masirah Air Base, Oman, expecting to land with minimum fuel. The offensive systems officer, Capt George Holland, quickly plotted the shortest course, reviewing airspace and landing base restrictions. The defensive systems officer, Capt Linda Vadnais, confirmed the pilot’s fuel calculations and assisted in running the emergency divert checklists. Because fuel continued to leak from the receptacle and the winds were stronger than forecasted, the crew arrived with 4,000 pounds less fuel than planned. The low fuel state was compounded by a forward bay filled with over 16,000 pounds of bombs that required part of the fuel to be used for ballast to maintain proper center of gravity. While configuring the aircraft for landing, the crew discovered that they were unable to lower the flaps and slats. The instructor pilot, Maj James Egbert, continued to fly the aircraft and prepared for a high-speed, no-flap/no-slat landing while the aircraft commander, Capt Bridget McNamara, ran the emergency checklists. The low fuel state meant that the crew had one opportunity to make the landing. This was further complicated by the fact that Masirah’s runway is the minimum length and width for normal B-1 operations. They landed within calculated touchdown parameters and immediately applied maximum brakes. The high touchdown speed necessary for a no-flap/no-slat landing and a runway surface that undulated for the last 5,000 feet made braking action and directional control extremely difficult. The crew’s sound decision-making and quick reactions to a multiple emergency situation brought the aircraft to a safe stop within 100 feet of the end of the runway.

Crew Chief Safety
Award of Distinction

On March 21, 2002, while performing aircraft recovery assist duties at a temporary duty location in support of Operation NOBLE EAGLE, SrA John Moore heard a loud “bang” from an adjacent row of aircraft. Looking across the flightline, he saw smoke billowing from the jet fuel starter area underneath a host unit F-15C. He immediately dashed across the ramp to assess the situation and without hesitation told the positioned crew chief to have the pilot shut down his engines right away. SrA Moore grabbed the HALON fire extinguisher and promptly put out the flames. Parked directly across from the incident aircraft were 10 F-15C aircraft fully loaded with live munitions. SrA Moore’s quick thinking and decisive actions averted a full-scale response and evacuation of the area and were directly responsible for preserving a national asset valued in excess of $30 million.
There are a lot of different areas of expertise in Weapons Safety, but I wanted to share what I’ve learned over the last almost 3 years about one particular one, licensed explosives locations. As defined in Air Force Manual (AFMAN) 91-201, Explosives Safety Standards, licensed explosives locations are storage areas that are normally located outside the base Munitions Storage Area or MSA, but are within the U.S. Air Force area of control. Examples include Security Forces armory, combat arms training, Life Support, and parachute shops.

It is an installation’s Weapons Safety office that grants the licenses for these locations, but only after coordinating with the munitions accountable systems officer, Security Forces resource protection manager, and the base’s Fire Protection Agency. Licenses are not issued for convenience. Quantities of munitions are limited to the minimum storage necessary to support specific mission essential explosives operations or missions.

Licensed locations require close monitoring for a couple of reasons. Usually personnel working in licensed locations do not receive the meticulous training associated with explosives safety. Another factor is lack of experience because personnel are frequently rotated. Monitoring helps the newly assigned individuals understand the dangers associated with maintaining such a location.

The wing’s Weapons Safety office and the fire chief conduct the monitoring. Both perform annual and periodic spot inspections, which help ensure personnel remain informed of all aspects of explosives safety practices. Another valuable monitoring source is the additional duty Weapons Safety representatives who are capable of visiting these locations on a daily basis.

One of the most common explosives safety violations documented during inspections is housekeeping. Routine and proper housekeeping is essential to explosives safety. During one spot inspection, we found that the Security Forces armory was storing very expensive patrol bicycles because of its 24-hour coverage and security. These bicycles were blocking exits and fire extinguishers. Other unnecessary equipment also cluttered the room, making it unsafe.

Another common unsafe practice is storing heat-producing devices along with explosives. We discovered a couple of incidences of this during inspections of the Life Support sections. Matches are placed in the survival vests that Life Support maintains in the workplace. That was not the problem. The problem was that the spare matches were being stored in the same location as the munitions. This was an accident waiting to happen. Life Support sections also use crockpots to melt wax to repair nylon cords. Again, not a problem. But when we found that they were storing the crockpots above the munitions bins, then there was a problem. Everyone understands that devices like these are required to be in the same workplace as munitions. We all just have to use extra caution to ensure that we are not inadvertently creating a fire hazard that can lead to an explosives incident.

I have learned a lot about licensed explosives locations and wanted to share a couple of those experiences with others in an effort to contribute to the safety of all of us in this business. Limiting the quantities of explosives, keeping personnel trained and informed, and conducting routine visits and good housekeeping are just a few of the safety requirements that will help ensure your licensed explosives locations remain mishap free. Stay vigilant and be safe.
Unexploded Ordnance (UXO) hazards on the battlefield have an enormous effect on command and control decisions for battle planning. During Operation DESERT STORM, there were a number of Army personnel killed and injured as a direct result of handling and/or mishandling of UXO. UXOs are hazards, whether they are on the battlefield or in designated training areas. People can lessen the danger of UXO hazards by being able to recognize the hazard and strictly follow the basic safety guidelines.

By definition, explosive ordnance is any munitions, weapon delivery system, or ordnance item that contains explosives, propellants, and chemical agents. Unexploded ordnance consists of these same items after they have been: (1) armed or otherwise prepared for action, (2) launched, placed, fired, or released in a way that they cause hazards, and/or (3) remain unexploded either through malfunction or design. An individual’s ability to recognize a UXO is the first and most important step in reducing risks associated with UXO hazards.

Munitions come in all shapes, sizes, and colors. They are color-coded during the manufacturing process for easy identification purposes; however, color markings alone cannot be relied upon to identify UXOs. These markings can be altered or removed by exposure to the elements. Instead, physical features should be used to identify a UXO outside its normal environment.

Whether present in an area by design or by accident, UXO poses the risk of injury or death to anyone in the vicinity. To lessen the danger of UXO hazards and prevent placing others at future risk, certain precautions and steps should be taken by anyone who encounters UXO. The danger of UXO hazards can be lessened by being able to recognize the hazard and by adhering to the following basic safety guidelines:

Once you visually identify a UXO, do not move any closer to it. Do not attempt to remove any object on, attached to, or near a UXO. Some types of ordnance have magnetic or motion-sensitive proximity fuzing that may detonate when sensing a target. Others may have self-destruct timers built in. Leave the hazard area and report the UXO.

Do not transmit any radio frequencies near a suspected UXO hazard. Signals transmitted from items such as walkie-talkies, short-wave radios, citizens’ band (CB) radios, or other communications and navigation devices may detonate the UXO.

Whenever possible, mark the UXO hazard(s) with suitable materials, such as engineer tape, colored cloth, or colored ribbon. Attach the marker to an object so that it is about 3 feet off the ground and visible from all approaches. Place the marker no closer than the point where you first recognized the UXO hazard.

Stay away from areas known or suspected of UXO contamination. This is the best way to prevent accidental injury or death.

Risks from unexploded ordnance can encompass a wide range of possible outcomes or results that include bodily injury or death, health risks associated with exposure to chemical agents, and environmental degradation caused by the actual explosion and dispersal of chemical or other hazardous materials. If you ever have the misfortune of discovering a UXO, the best course of action is to mark the location so others won’t stray into the area, leave the immediate area, contact your local authorities, and provide them with as detailed a description as possible of the UXO. These measures will ensure that neither you nor any other unsuspecting individual will become a UXO victim.

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By CW4 Ramiro Rodriguez, Reprinted In Part Courtesy of Countermeasure, June 2002
Airman Safety:  Every Supervisor’s Concern

As we all start another cold and flu season, I wanted to share the following experience that will hopefully prevent a similar tragedy from happening in your squadron.

I had an “outstanding” Senior Noncommissioned Officer (SNCO) get sick with flu-like symptoms. She did not like seeing doctors, so she tried to “gut it out” for the first few days. However, after a weekend of diarrhea and vomiting, she resigned herself to the fact that she was really sick and told her coworkers she was going to sick call on Tuesday afternoon. When she did not return to work, everyone up and down the chain of command assumed that she was “on quarters.” After all, she was an outstanding troop who had tried to work despite her symptoms, so there was no way she would be playing hooky from work.

When you have an airman on quarters, make sure that someone is checking on them every day.

So this pre-empted the subordinate’s intention to call and check on the SNCO. That evening, her supervisor’s supervisor asked how she was doing. When no one could answer that question, he directed some of her coworkers to go to her apartment on Saturday and check in on her.

On Saturday, three coworkers went to the SNCO’s apartment. They found her car out front in its usual parking spot. However, they did not get a response after ringing the doorbell for 20 minutes. They began to fear the worst and decided to break into her apartment.

When they entered, they found the SNCO using the bedroom doorway to try and support herself. She looked awful, was unstable, and acted somewhat disoriented. While she was able to answer some questions, it was clear that she needed professional help, so they took her to the Emergency Room (ER).

In the ER, the doctor determined that she was badly dehydrated and her electrolytes were “dangerously out of balance.” She was medically evacuated to the regional medical center that evening. When her condition did not improve the following week, she was medically evacuated to Walter Reed Army Hospital. According to the doctors, her long-
term prognosis is not good. She will require long-term physical, speech, occupational, and neurological therapy, and may be medically retired.

How can you prevent this from happening in your squadron?

First, tell this story to your squadron. The flu is a dangerous viral infection that can kill or severely injure. In the 1918 worldwide flu epidemic, 20 million died out of the 500 million infected. In today’s world of modern medicine, an improperly treated case of the flu can easily devastate a bright, energetic, and healthy person. The SNCO I saw in the hospital took my breath away.

Second, strictly enforce the requirement to have a slip from the doctor that puts your people on quarters. This is not just proof that they “really are sick.” It proves that they made it to sick call and were seen and treated by a physician.

Third, “Check Six.” When you have an airman on quarters, make sure that someone is checking on them every day. This will help to ensure that the patient is following the treatment prescribed by the doctors and will provide a safety net for any follow-on complications — especially for troops living by themselves off base. While my SNCO lived downtown with neighbors who were all foreign nationals, I am under no illusion that the same thing could not have just as easily happened in a base dorm.

We invest a lot of time, training, and money into our personnel assets. Take a couple of extra minutes to implement my recommendations and provide a squadron safety net during this year’s flu season. Let’s make sure that this never happens again in an Air Force squadron.

Editor’s Note: Submitted by the Air Warfare Center, Nellis, AFB.
I had already put around 800 miles behind me, but still had more than 400 to go to get back to my unit by the next morning. No problem ... I was young, healthy, and enjoyed driving. I thought all I had to do was drink coffee and keep the car “between the lines” as truck drivers like to say. Then it began getting dark.

All the visual stimuli — road signs, pretty countryside, etc. — that had helped keep me alert during the day were fading fast. As I drove into the night, I began “seeing things.” I “saw” people walking across the road in front of me. I hit my high beams and slowed down, but it was nothing more than my imagination. Later I was startled to “see” the taillights of an 18-wheeler which appeared to be stopped in the road ahead. I slammed onto the brakes and swerved into the next lane. I was shocked when I realized the “lights” were not taillights at all — just stars low on the horizon ahead.

Deciding that I would rather be Absent Without Leave or AWOL than dead, I got off at the next exit and found a place to take a nap in my car. I woke up to a police officer’s flashlight shining through the window. When I explained that I was trying to drive more than 1,200 miles straight through from San Diego, Calif., to Seattle, Wash., he just shook his head in disbelief.

He was right too. I had tried to pack too many miles into too few hours. As a result, I had experienced the phenomenon called “highway hypnosis.” I was lucky enough to survive these ghostly encounters; however, during the past 12 months, many Air Force members have been much less fortunate. We have had a number of people injured and at least one fatality from fatigue-related driving mishaps. To avoid becoming a mishap report in the Air Force Safety Center files, try the following risk reduction tips from the Automobile Club of Southern California.

• Get 8 hours of sleep before hitting the road. Being even a little tired can slow your reactions to highway hazards.

• Use extra caution if you must drive between 2:00 and 6:00 a.m.

• Pack early enough before a trip to allow for a normal night’s sleep.

• Avoid drugs that cause drowsiness.

• When driving, keep your eyes moving from the left side of the road to the right. Also, periodically focus on an object that is near and then focus on one that is farther away.

• Stay alert. Decide ahead of time how to react to possible dangers or driving situations.
Driving Fatigue Warning Signs

Your eyes close by themselves.
If you find yourself closing your eyes, stop and take a nap. Even a short 20-minute nap will help.

You find it difficult to pay attention.
If you find yourself daydreaming, stop and exercise. Exercise will increase your alertness. Try running or walking while waving your arms.

You find yourself frequently swerving in your lane.
You are in danger of falling asleep at any moment. Stop for rest and exercise. It is better to be late than to not make it to your next destination at all.

Misconceptions About Fatigue
By Mr. Michael Brown
Reprinted in part Courtesy of Countermeasure, February 2002

Coffee overcomes the effects of drowsiness while driving.
False. Stimulants are no substitute for sleep. Drinks containing caffeine, such as coffee or cola can help you feel more alert, but the effects last only a short time. You are still likely to have micro-sleep or brief lapses that last 4 to 5 seconds.

I can tell when I'm going to fall asleep.
False. If you are like most people, you believe you can control your sleep. In a test, nearly 80 percent of people said they could predict when they were about to fall asleep. They were wrong. The truth is sleep is not voluntary. When you're drowsy, you can fall asleep and not even know it.

I'm a safe driver so it doesn't matter if I'm sleepy.
False. Alert drivers are safer. Even the safest drivers can use poor judgment when they're sleepy.

I can't take naps.
False. Scientific tests show that naps can help promote alertness. If you think you can't nap, pull over and relax for 15 minutes anyway. You may be surprised at how easily you fall asleep once you give yourself a chance.

I get plenty of sleep.
False. The average person needs 7 to 8 hours of sleep a night. If you don't get this amount, then you probably don't get enough sleep and you may be building up a sleep debt. Ask yourself, "Do I feel rested?"
All too often we do not learn enough from the mistakes of others. While we will diligently attend safety briefings or intently watch news stories of others involved in accidents at home, on the highway, or at work, we tend to dismiss the warnings we see and hear because — after all — those things did not happen to us. We tell ourselves “I would never do that” or worse yet, “that could never happen to me.” We then merrily go about our business without another thought on the subject. By doing this, we miss opportunities to make educated personal risk decisions and doom ourselves to repeat the failure of others. I can back this statement up with the following evidence.

How many times during a 101 Critical Days of Summer briefing have you heard that “late spring and summer are the most dangerous times to travel the highways and byways of America”? So, why then has Air Combat Command (ACC), over the last 2 years, lost 10 members to fatal vehicle accidents during this campaign? Did each of these people lose their life because they encountered situations that were so unique that none of them had ever been warned about the risks? One look at the mishap statistics shows this was not the case.

Speed or aggressive driving was found to be the causal factor in eight of the 10 fatal accidents. In three of them, alcohol was a factor. Both of these topics have been covered extensively in safety briefings Air Force-wide and in television ads, yet these lives were still tragically lost. It is critical that each of us grasp the reality of these risks, and one way to do that is by applying Personal Risk Management (PRM).

Simply put, PRM is anything relating to or intended for the management of our own personal safety. Speed limits and drinking while driving are two areas where PRM application can definitely make a difference.

Most of us treat posted speed limits as a goal we must achieve. But is it? The answer in most cases is no. Speed limits are usually set for perfect conditions: sunny day, dry roads, and light traffic. When any one of these variables is absent, it is often not safe to drive the limits, let alone exceed them. A study conducted by the National Highway Traffic Safety Administration (NHTSA) on aggressive driving concluded that our chances of surviving an accident decrease proportion-
ally with every excess mile per hour over the established speed limit we travel. Another area that decreases as our speed increases is our ability to properly assess our driving situation. When we exceed the speed limit, we no longer have signs of aggression, which does not mix well with vehicle operations.

Drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving don’t mix at all. The intent of the laws on this topic is to keep everyone off the roads who has had too much to drink. Often drinking and driving

time to react to the unpredictability of others.

If you are curious about whether you are at risk because of aggressive driving, ask yourself these two questions. First, do you have a tendency to pass the person in front of you even if they are going the speed limit? If you said yes, don’t feel alone. Depending on your age, upwards of 60 percent of the drivers surveyed tend to pass more than be passed, according to the NHTSA study. Second, do you feel that you are more alert when you drive faster? Another yes would put you in the same category as approximately 30 percent of the people polled by the NHTSA. You should know that both of these behaviors are warning times, the more we drink, the less impaired we feel. In the safety world, alcohol is known as a “Self-Induced Stressor.” It impairs our judgment to the point that we think we are sober enough to drive a vehicle. This is why the Ad Council came up with the “Friends Don’t Let Friends Drive Drunk” campaign. A sober friend can make a much better risk evaluation decision than the person who has actually been drinking. According to the council’s website, since the campaign’s inception, 68 percent of Americans say they have personally stopped someone who had been drinking from getting behind the wheel of a car. When was the last time you stopped a friend or coworker from drinking then again, I am called on to investigate accidents where one or more of these rules were broken. Most of the time, people walk away from the accident only bruised and slightly broken, living another day and a little wiser for the wear. However, there are also those who are less fortunate. Don’t take a chance with your life. It is not enough to just know the campaign slogans. Personalize the reality of risks, then apply the rules, know your limits, and always use sound PRM.

For more information on NHTSA’s aggressive driving study, go to www.nhtsa.dot.gov/peopler/injuryresearch/speed_aggressive.html. To learn more about the Ad Council’s drinking and driving campaigns, visit www.adcouncil.org/body_camp_historic_drunk.html.
The "101 Critical Days of Summer" are now over, and life is getting back to a daily routine that will be followed for the next 9 months. The ones affected the most by the new or revived routines are our little ones. The carefree days of summer are now replaced with the challenges of a new school year. That's right - SCHOOL IS OPEN! Our children will be exposed to a whole new set of hazards. What can we do to help them? As parents, it's our responsibility to teach our children how to be aware of these hazards and avoid them.

**Pedestrian Safety.** During 1999, 559 pedestrians ages 5 to 18 were killed in motor vehicle accidents. Of these, 109 occurred during normal school hours and over 10 percent of these accidents were school bus related. A majority of these school-age pedestrians were killed in the afternoon, with 42 percent occurring between the hours of 3:00 and 4:00 p.m. Also, these school-age pedestrians accounted for 34 percent of all pedestrian injuries.

To keep our children from becoming a pedestrian statistic, we need to find safe routes to school. This means a route with slower traffic, more crosswalks, more crossing guards, and more sidewalks with wider surfaces and unobstructed views. Most of all, we need to teach our children how to get to and from school safely. To accomplish this, parents need to teach traffic safety rules at an early age.

**Small Children Are Hard To See.** Children must also be seen to be safe. Children are less visible because they are smaller than other pedestrians. Wearing brightly colored clothing is one way of making it easier for drivers to see young pedestrians during the day. After dark, children should carry...
a flashlight or wear special reflective material on their clothing, or book bags. It is also important to stop, look, and listen before crossing the road at night.

It is important to keep in mind that children ARE NOT small adults. Until a child is at least 10 or 11 years old, he or she won't have the skills to handle traffic. Because children are short, it is also difficult for them to see motorists and for motorists to see them. Because their peripheral vision is approximately one-third narrower than an adult’s, children can’t see a car approaching as soon as an adult. Children also have difficulty judging a car’s speed and distance, and they often think that if they can see a motorist, the motorist can see them.

**School Bus Safety.** Every year approximately 440,000 public school buses travel more than 4 billion miles and daily transport 24 million children. On average, 10 children a year are killed in school bus crashes. Most fatalities were in non-survivable situations (the fatality occurred at the point of maximum damage to the school bus). Also on average, 30 children were killed each year while getting on or off the school buses, 23 of which were struck by the school bus, and the other seven by another vehicle. More than half of these children were between 5 and 7 years old.

### Safety Rules for Children

- Arrive at bus stop at least 5 minutes early.
- Stand at least five giant steps (10 feet) away from the edge of the road.
- Wait until the bus stops, the door opens, and the driver says it’s okay before stepping on the bus.
- Be careful that the clothing with drawstrings and book bags with straps or dangling objects do not get caught in the handrail or door when exiting the bus.
- Walk in front of the bus; never behind the bus.
- Be sure the bus driver can see you, and you can see the bus driver.
- Stop at the edge of the bus and look left-right-left before crossing.
- Tell the bus driver if you drop something beside the bus. Should you try to pick it up, the bus driver may not see you and drive into you.

### Obey School Bus Laws

- It is illegal in every state to pass a school bus stopped to load/unload students.
- Yellow flashing lights indicate the bus is preparing to stop to load/unload children. Motorists are required to slow down and prepare to stop their vehicles.
- Red flashing lights and extended stop arms indicate that the bus has stopped and children are getting on or off. Motorists must stop their cars.
- It is illegal in every state to begin moving before the red flashing lights are turned off, the stop arm is withdrawn, and the bus begins to move.

*Editor's Note: The information contained in this article was obtained from the National Highway Transportation Safety Administration. For more information, visit www.nhtsa.gov.*
I MIGHT BE ABLE TO SHOW THESE YOUNG'UNS A THING OR TWO.

COULD I HELP YOU, SIR?

GET REAL.

SIR... YOU LOOK A LITTLE PALE. ARE YOU FEELING ALLRIGHT?

SIR?
Congratulations on another safe flying month. Although we did have one Class A, it reached that classification because repair costs caused it to just reset the threshold. On a side note, however, we have seen an alarming trend of more Class B and C mishaps because maintenance professionals are not following T.O. guidance. While we are all extremely busy and taking shortcuts may save time and keep stats looking good, it won't take long before something goes wrong. Remember, much of our guidance as aviators and maintainers is written in blood.

There were two Class B mishaps for the month of July. In the first one, a motorcycle operator lost his leg when his bike was hit from behind. The other Class B mishap involved an operator losing his arm when his 4 wheel private motor vehicle struck a guardrail. NOTE: New motorcycle training requirements now require motorcycle operators to complete motorcycle training before riding a motorcycle on or off base, on or off duty.

With mishaps, no news is good news. Keep up the great mishap prevention efforts! Stay vigilant to mishap crosstel from other commands. There has been a slight increase with missile mishaps across the Air Force. Specifically, AIM-9 and AGM-65 mishaps are on the rise. Follow the technical data, and we can correct this negative trend.
Security Forces Specialist A1C David Strickland, low crawls to his advancing position during field condition training. The training is designed to prepare security forces members to blend in with the environment and provide the element of surprise to the enemy.