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This month's edition of THE COMBAT EDGE focuses on AOR operations. Regardless of how many times you have deployed, the AOR is always a challenge.

We have a number of "There I Was" AOR articles this month to learn from. We start with Maj Olesen's U-2 article that provides us a look at getting down from 70,000 feet while working an engine problem. Capt Hauck asks a very good question in his article, "Have We Become Complacent?" This is certainly a question we need to continually be asking ourselves at home as well as in the AOR.

Capt Will's F-16 article highlights the challenges of handling an inflight emergency in another country with ATC differences, language pitfalls, and a SOF that "did not understand the situation." Unfortunately, all of these are daily challenges in the AOR and are certainly worthy of time spent discussing at a squadron meeting.

On the weapon's side, MSgt Aber's article clearly shows us the consequences of allowing someone to load munitions who is not qualified to do so, and SMSgt Sawyer educates us on nuclear certified equipment.

The closing article for the month is a testimonial from SMSgt Joseph to the fact that taking time to do things right just might save the life of your child.

Each article has solid lessons we can learn from and take to heart. Being safe in the AOR requires constant vigilance and readiness for the unexpected. Don't become complacent and don't let your guard down!

Colonel Kevin W. Smith
ACC Chief of Safety
"Aviate, Navigate, & Communicate"

By Maj Jeff Olesen, Beale AFB, Calif.
In life support that morning, I was going through the routine of donning the space suit required to fly my U-2. My thoughts were on the departure out of Prince Sultan Air Base (PSAB)—specifically my flight timing to certain points where I would meet up with an AWACS and a package of fighters. This type of timing can sometimes be a tricky thing with the Deuce.

At altitude the plane is flown in a narrow window, a few knots between overspeed (bye-bye tail section) and stall (hello ground). With such a small airspeed window to work with, speeding up and slowing down aren't options I could use to make my flight timing work. So, as I donned my suit, I was thinking of the geometry I might use on departure and how I could adjust my in-flight orbits if that became necessary.

Once the space helmet was closed up and tested, I mentally reviewed the aircraft's takeoff emergency procedures (EPs) while sucking up 100 percent oxygen. At the jet a short time later, I'm stuffed in and hooked up by our physiological experts. While I awaited takeoff, I could feel the heat of the desert even though I was in a "controlled cooling environment." While the last checks were completed, I reflected on my preflight briefing concerning the unlikely event that I might have to divert. For this mission I had briefed a choice of fields in a nearby country—none of which I had been to. So it was with great confidence that I threw the throttle to full power and headed up for 70,000 feet.

Along my flight path, it was a clear day and I could see a couple of the divert fields I'd briefed earlier. I gave them little thought other than what type chow hall they had, and wondered if they served ice cream. My timing to the mission area was spot on and I checked in with all players when I arrived.

One of the great things about the U-2 engine for high flights is that the pilot places the throttle to full power on takeoff and leaves it there until he/she is ready to descend hours later. However, 3 hours into this sortie the engine began a series of un-commanded "rollbacks" in which the rpm would decrease momentarily to a mid-power setting, and then increase back to full power. It was instantly clear to me that my mission was over. I began a turn back towards PSAB and followed tech order guidance by reaching over to place the engine mode switch from primary to secondary. This is the proven solution to fix most engine anomalies. Changing this switch takes the computer brain out of the picture and puts the engine in an almost pure mechanical mode.

When the switch hit secondary mode, the engine immediately began to grind and vibrate with incredible violence. The vibrations shook me so hard that I could no longer see clearly. The master caution light and the horn were going off and I (despite the blurriness) could see engine instruments quickly unwinding toward zero. The plane was off autopilot (did I do that?), and without really giving it conscious thought, my hand felt for that switch again and placed it back to primary.

Instantly, the vibrations ceased, but I was back to my original problem as the rollbacks continued. Home seemed an especially good idea now, and I acquired a direct heading back to PSAB. En route, the rollbacks became progressively more pronounced and more frequent,
and the jet was losing altitude. **Would it sustain enough thrust to make it home?**

I went through any and all checklists concerning the engine. I ran the parts of checklists that applied to engine failure. Perhaps a lower power setting would calm it down. While attempting different settings with the throttle, I informed AWACS of my emergency. I got word to my fighter escorts below and told the folks on the communication link to stand by. I began to think: This shouldn’t be happening, so what did I do wrong.

My mind raced to figure it out, or remember anything I’d ever heard from the old-heads. I now began looking for a heading toward my divert base. I had the choice of two, and was uncertain which one to choose — availability of ice cream was not a factor! I could reach either with plenty of altitude, however; despite my preplanning, I had never given thought to which one I might pick. I had only considered their location if they were needed.

Now, the rollbacks seemed to make the engine quiet as it hit the low end. I continued to try different power settings, and soon was all the way back in idle. While still attempting to not stall or over speed, the engine responded by actually going backwards. I tried it again, disbelieving what I’d seen, but with the same result.

With the engine matter pretty much settled — stuck in idle/now I’m a glider, I began looking through the in-flight guide for anything that would tell me which field could better handle a U-2 dropping in for awhile. I remembered that one had a bigger U.S. presence than the other, so I checked the map, called it up on the flight computer, and headed that way.

Fortunately, my intended field was near an international airport I’d flown to in a previous life. I remembered how traffic flowed into it, and decided to do a figure-eight type maneuver as I spiraled down to keep the field in sight and to keep away from any international traffic flow. I arrived over my field at around 40,000 feet. As I got closer and knew I had the field made, I lowered the gear and set 20 percent flaps for safer handling — better to do it now while I still can with an engine at least operating and giving me hydraulics, but how long?

The fun started when I looked up the tower frequency of my divert field, dialed it in and called. I got very broken English — so, U.S. presence, but locally run! I explained that I was arriving with a crippled engine and was going to land soon. The tower claimed I had no flight plan and no authorization. I smiled and said I was landing there because I had no choice — I had no engine. “Oh, that is different…”

With the U-2’s glide ratio, it was apparent this was going to take awhile. I started to do the math in preparation for the flameout pattern. I wanted to crunch the numbers on high key and low key altitudes. As I got into the checklist, I realized those numbers were for a plane with
an engine that was not running. The U-2 engine does not windmill when shut down and acts as a huge speedbrake. The engine in idle would produce an unknown descent rate. In its purest form my flameout pattern would be a visual maneuver with no real altitude checkpoints.

AWACS came on UHF and told me the Supervisor of Flying (SOF) frequency at my divert base. A real heads up by the AWACS. This was news to me; GOOD NEWS! I dialed it up and got the group commander. Through him I was able to coordinate everything. He asked me how long before I landed, and I gave him a huge wag. He asked me for something more specific, runway once I landed — we both assumed the best results from my upcoming dead-stick landing attempt.

At around 10,000 feet I began actual practice patterns over the runway to get an idea at the descent rate I could expect. I was shooting to manage my turns to make a high key point at 2,000 feet Above Ground Level (AGL). This was going to be close. The U-2 produces so much lift even at idle power, that to land safely, the approach must be flown to a near perfect threshold crossing height at an exact speed. Two knots slow and it will stall. Every additional knot of airspeed when crossing the threshold will cause the aircraft wings would float me down past the end. Too late would also lead to a poor result — one that I did not want to think about. I forced myself to wait until it looked right.

It was a guess, but thanks to a long tradition of great training in the U-2, I guessed right. As I rolled out on final things looked good, and the landing was uneventful. I stopped, the heavier wing fell to the runway, and I shut down. There were all sorts of U.S. military folks gathering around the plane. I cracked the canopy and began the task of getting folks to level the wings so the fuel did not gather in one end. Without pogo's (wheels) stuck in the wings, the fuel can gather in the low wing and no amount of human communicate,” my master volume switch went to “zero.”

and I explained to him I did not know. This was my first time doing this. He gave me a “fair enough.”

During the glide down, I knew I was over the correct field. I confirmed with the SOF that certain unique aspects of the field I was seeing were actually associated with his field. Landing at the wrong field is one of those nightmares every pilot has. It is the equivalent of dreaming about showing up to school in your underwear. With the extra time, I was also able to begin discussion on what would be needed to push the U-2 off of the strength will get it back up. The space suit was heating up in the desert weather as I pinned the gear. The push back took 45 minutes and 25 folks, but we made it happen.

By day’s end, that fleeting question I’d had earlier about what kind of chow hall they had here was answered. It was good stuff.

Editor’s Note: Twelfth Air Force selected Maj Olesen, for its Outstanding Airmanship Award for 2002. He also won the FY 02, ACC Outstanding Airmanship Award and the Koren Kolligian, Jr., Trophy.

“These awards draw attention to Besie and the hard work each member does here to support the vital U-2 mission,” Olesen said.
Have We Become Complacent?
e ... cent?

By Capt Les Hauck, Operation ENDURING FREEDOM
Situation 1: “Fa la la la la, la la la la.” I’m singing way out of key of course, but right before Christmas Day, I received word that a chief of safety was needed at one of our expeditionary bases in the Middle East. The departure flight was leaving on New Year’s Day, and there was not going to be any on-the-job training for this one. Was I complacent? Not one bit! Here’s the kicker: after finally arriving at Base X, my in-brief with the wing commander focused on complacency as a problem around the base. At weather requirements — I see an asterisk next to complacency. Enter again the ubiquitous complacency question mark: How could there be complacency on this ride?

The above two situations involve the combat arena, and both are rigorous and demanding events. Does it seem like complacency would be an issue? Whether girding for war or flying a practice SAT sortie, unfortunately the “C-factor” does not go away. Looking at FY02’s mishap rates and causes, it is not industry and mechanical problems depth definition describes complacency as “a calm sense of well-being and security, feeling self-satisfied, and an unawareness to actual dangers or deficiencies.” Has this ever happened to you?

A quick, defensive response might be “Of course not!” If you look closer, however, the view changes. Consider the following example: On your drive to work, you pass a number of prominent landmarks — a car dealership, a cow farm, or even a sports arena. However, after your 69th time of making the trip, do you remember passing them anymore? The answer is no, and it is due to familiarity; all those once non-miss landmarks blend into a monotonous daydream.

In Situation 1 described above, I could not fathom complacency being a factor around an unfamiliar camp in the middle of the desert. Things soon changed, and I saw my boss’ view. By a week into work, I found myself in a ‘Just another day — I’ve seen this one before’ routine. After only a week! Some of the pilots had been in-theater for over 200 days and flown the same mission multiple times. If my day was already like that drive to work at home, what was theirs like? Were they...
referencing checklists in their daily cockpit chores, or staying on-guard for suspicious third country national actions? It was time not to just fight terrorism; now it was time to police ourselves. We soon found discipline as one of the best combatants.

The Pros consider discipline a “safety net,” or prevention technique, that is available to fight complacency. The breakdown of what discipline encompasses though is infinite. For instance, a person’s professional involvement, or desire to learn more about his or her career field, is a discipline. In Situation 2, the apt to pay closer attention in my preflight while looking under the gear well. The same applies when flying an endless combat air patrol (CAP). If, under one G, I study techniques and specifics on new systems, this is not just time to tick away airborne; it is practice time.

This brings up another point. While technological innovations increase our war fighting ability, these systems also indirectly contribute to complacency. The Wright brothers, in the early 1900s were far from lackadaisical in their first flight. Today though, with innovations that environment,” worry-free, complacent attitude.

An overlooked step that we were constantly fighting in the AOR was the use of personal protective equipment (PPE). The two reasons highlighted for this occurrence were a) focusing solely on the mission, and b) becoming complacent. Sure, it is good to have a can-do attitude, but not at the price of injury or loss of life! If personal safety gear is required, we need to be disciplined to wear it; if it is not available, it needs to be procured. Chances are there is a local safety shop just waiting to help!

There is little margin for error in our career field. One missed step on a mundane ground inspection, or one idle second in the cockpit on a familiar maneuver can lead to disaster. Not noticing a landmark on the job is not the same as missing one on the drive to work. Discipline and taking an on-guard stance are just two techniques to combat complacency. If you are finding “blur time” or an overly comfortable atmosphere around your workplace, ask yourself, “Have I become complacent?”

e tasks that can lead us down the complacent road.
While deployed to Saudi Arabia in support of Operation VIGILANT WARRIOR in 1994, I witnessed a potential mishap involving an explosives operation that I will never forget.

An F-4G weapons load crew was downloading a live AGM-88 HARM from a LAU-118 launcher. If you are familiar with F-4Gs, you know that they are low to the ground and the method of downloading the HARM is to first place a forward track safety pin in the LAU-118 missile launcher, then place the bottom half of the HARM casket under the missile on the ground. The next step is to then straddle the missile between your legs, wrap your arms around it, and interlace your fingers for grip. Then use your whole body to slide the missile forward until stopped by the forward track safety pin.

At this point, the MHU-83 bomb lift truck ("jammer") lifts the bottom half of the casket under the HARM, gently places it in the casket foam, the forward track safety pin is removed, and the missile finally slides completely off the missile launcher.

In this particular instance a weapons flight chief disrupted an explosives operation to his detriment. He was standing in the immediate area watching a download operation and decided he wanted in on some of the "action." He asked the weapons load crew chief if he could slide the HARM himself. The load crew chief agreed and the flight chief straddled the missile, gripped his fingers under the missile, and "heaved ho" — unfortunately for him, the weapons load crew forgot to install the forward track safety pin. This means nothing was there to restrain the missile from completely separating from the LAU-118 missile launcher. This also meant the missile slid off the missile launcher and fell about 2 feet into the previously placed HARM casket with this flight chief's hands wrapped around the bottom of the large missile.

There was a stunned silence as everyone stood around with open mouths for a split second — then the flight chief's screams broke the silence. There were enough people around to lift the heavy missile up and allow the flight chief to remove his hands. For you see, the missile pinned his hands between the missile and the casket. Fortunately for him, the casket foam cushioned his hands and he didn't suffer any injury. Fortunately for all, the missile fell perfectly into the foam cutouts and didn't strike any hard surfaces on its way down.

What went wrong? The first thing is the weapons load crew chief failed to exercise control over the work environment. He should have cleared the immediate area of any personnel not related to the operation. Second, he should not have allowed anyone, shop chief included, into his explosives operations. All these invited distractions disrupted an explosives operation. As crew chief, you must maintain control and not let outside distractions cause you to make mistakes. Do things by the book, stay focused, and in control at all times!

By MSgt Tsutomu Aber, Nellis AFB, Nev.

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What is Nuclear Certified Equipment or NCE? Let me start with the Air Force definition: "It is equipment that has met all nuclear safety criteria and is authorized for use with nuclear weapons." It is also referred to as 'nuclear safety certification' or 'design certification.'

These items have passed the rigorous testing and evaluation criteria necessary to earn the title of NCE. They are listed in the Master Nuclear Certification List (MNCL) and are the only equipment and software authorized for use on nuclear weapon systems. Certain items such as specialized test sets and commercial vehicles may be certified by virtue of who provided or manufactured these items. Consult applicable technical data for further guidance on these items.

With the definition out of the way, how does it affect you? If you are stationed at a nuclear-related base, you are probably familiar with NCE and how it is used. But, if you are stationed at a unit that does not have a nuclear-related commitment, NCE may still be a factor in your day-to-day operations.

Items we use daily, such as hoists, forklifts, test sets, trailers, and tow vehicles, may be NCE. It's important that you know what equipment in your organization is NCE so that in the event of a...

...it's a good idea to take the time to check all equipment.
More Than Nice to Know
By SMSgt Martin Sawyer, Langley AFB, Va.

mishap you can take corrective action.

What corrective action must you take if NCE is involved in a mishap? You must first evaluate the mishap and determine if it's safety related or not.

If you determine it is a safety-related problem, then you must immediately report it through safety channels. This is a very important step and must be accomplished to ensure other users of like equipment are notified of the mishap so we don't have to learn the same lesson twice. Air Force Instruction 91-204, USAF Mishap Reporting, details what requires reporting and how to report nuclear safety-related deficiencies, which are categorized as Dull Swords. These reports are used to identify problems to safety and design agencies as well as everyday users to ensure a resolution to the deficiency is found.

Another characteristic of NCE is it cannot be modified without approval from the item manager and only then if the change has been evaluated by the Air Force Safety Center (AFSC) to ensure there are no safety ramifications to nuclear surety. Modifications include all physical and/or functional configuration changes or any new uses for existing nuclear design safety certified items.

If you find an item with unauthorized modifications, remove it from service and report it via the Dull Sword process. The Air Force Safety Center will evaluate the modification and determine if it is still serviceable for its intended purpose, and therefore, still nuclear certified. If you have questions, contact your local safety office for additional guidance.

A last point, it is important to know that the owner/user is responsible for ensuring the equipment they use on weapon systems is certified. You must verify the equipment item is listed in the MNCL prior to use. Ensure that this validation process is part of your routine. Regular validation of equipment is necessary because of constant changes in technical data guidance and the on-going testing of nuclear certified equipment, often causing certification to be removed. The only way to be sure the equipment you plan to use in your nuclear operation is certified or not is to check it against the appropriate technical data.

Remember, it's a good idea to take the time to check all equipment you use for nuclear certification, whether your mission is nuclear related or not. If your operation is nuclear in nature, it's critical to the safety of the weapons that you ensure all equipment has been evaluated and certified. If your operation involves conventional munitions, your handling, transportation, or inspection equipment may still be NCE, and you must identify potential safety-related deficiencies so that other users and item managers can address the deficiency expeditiously. The security of our nation and the safety of our nuclear weapons stockpile depend on the maintenance you perform. Do the right thing every time and make sure the equipment you're using is nuclear certified.

equipment you use, whether nuclear related or not.
Primary Function: A-10 — close air support

- Contractor: Fairchild Republic Co
- Power Plant: Two General Electric TF34-GE-100 turbofans
- Thrust: 9,065 pounds each engine
- Length: 53 feet, 4 inches
- Height: 14 feet, 8 inches
- Wingspan: 57 feet, 6 inches
- Speed: 420 miles per hour
- Ceiling: 45,000 feet
- Maximum Takeoff Weight: 51,000 pounds
- Range: 800 miles
- Armament: One 30 mm GAU-8/A seven-barrel Gatling gun; up to 16,000 pounds of mixed ordnance on eight under-wing and three under-fuselage pylon stations, including 500 pounds of Mk-82 and 2,000 pounds of Mk-84 series low/high drag bombs, incendiary cluster bombs, combined effects munitions, mine dispensing munitions, AGM-65 Maverick missiles and laser-guided/electro-optically guided bombs; infrared countermeasure flares; electronic countermeasure chaff; jammer pods; 2.75-inch rockets; illumination flares and AIM-9 Sidewinder missiles.
- Crew: One
- Date Deployed: March 1976
- Unit Cost: $9.8 million (fiscal 98 constant dollars)
- Inventory: Active force, 143; Reserve, 46; ANG, 84
Pilot Safety Award of Distinction

While preparing for the high-TACAN approach to Beale AFB, and approximately 45 minutes into a low altitude U-2 training sortie, Capt Skeeters encountered a complete hydraulic failure emergency. Capt Skeeters immediately attempted to trim the aircraft to a more favorable trim setting for the recovery, but without success. Fortunately, the landing gear was already down and locked, but without hydraulics he would not have use of speed brakes or flaps for his return to the field. The no-flap landing in the U-2 is extremely challenging, with a threshold crossing speed just 2 knots above the stall. With its long wings, the U-2 in a no flap, low drag configuration, acts much like a glider. Too fast and the U-2 will float off the end of the runway; too slow results in a low altitude stall. Landing distance for his configuration was calculated at 10,000 feet on a 12,000-foot runway. Also, weather conditions had been deteriorating. Communicating with his mobile officer, emergency checklists and the approach and landing were covered. The TACAN approach would be flown so that he could get below the weather early and see the field. To lose altitude in his no-flap configuration, he had to fly two 360-degree turns to lose enough altitude to make the approach work. At the final approach fix Capt Skeeters attempted to add the last bit of drag that was available to him, the emergency spoiler system. However, the emergency spoiler system did not work, making the approach more difficult. At 10 DME and 3,000 feet, Capt Skeeters entered the weather. He gently coaxed the Dragonlady toward the MDA. At 1,000 MSL, Capt Skeeters broke out of the weather and located the field visually. He flew a flawless final approach and crossed the threshold on speed at the planned altitude of 5 feet. After floating at 1 to 2 feet for approximately 4,000 feet, Capt Skeeters, sensing the onset of the stall, cut the throttle to off to reduce his landing distance. The aircraft came to a stop with 4,000 feet remaining. Capt Skeeters egressed the aircraft uneventfully. His quick, smart actions and superior pilot abilities were directly responsible for the safe recovery of a national asset.

Ground Safety Award of Distinction

On Nov. 5, 2003, MSgt Henley was a passenger in a “Dragon 3” maintenance truck returning from phase dock to building 1025. As they approached the south side of building 1025, he observed 9th Civil Engineering Squadron personnel using an asphalt laying machine to pave the parking lot next to two external fuel storage tanks. As MSgt Henley got closer, he saw heavy black smoke billowing from around the machine and two workers using a fire extinguisher attempting to put out a fire under the machine. MSgt Henley told the vehicle operator to stop the truck in the street and to notify the Maintenance Operations Control Center of the fire. As MSgt Henley exited the truck, he noticed that the fire extinguisher being used was out of agent and the smoke becoming much thicker. With the fire extinguisher no longer useful, he sprinted to a nearby water hose, turned on the water, and ran back to fight the fire. When he got there, the smoke was so thick and it was hard to see the fire. MSgt Henley began to spray water underneath the machine and at that point saw the actual fire. He concentrated the water flow on the flames to put the fire out, and then stood back with the hose until the fire department arrived and took over the situation. The quick responsive action of MSgt Henley prevented what could have easily been a major fire with possible significant collateral damage.
On Nov. 19, 2002, A1C Ward was performing a pre-flight inspection on the electrical wiring and electronic components located in the electrical bay of a U-2S aircraft, when he noticed a serious defect with the aircraft battery assembly. As per technical data, Amn Ward checked the aircraft batteries for damage and security. Next, he checked the wiring connected to the emergency battery. While inspecting the wiring, he noticed a portion of the wires were chaffing against the Transformer-Rectifier power connection lugs in an area not easily seen without the use of a mirror and flashlight. The portion of wires that were chaffing against the power connection lugs were also chaffed completely through the protective chaffing pad that was protecting the wire bundle. At this time he called for an Electronic/Environmental specialist to determine if the wiring was damaged beyond technical order standards. SrA Mathis arrived to look at the wiring and determined that the wire in question had only begun to chaff and did not need to be replaced. The wire bundle was then wrapped with a new protective chaff pad and re-routed away from the Transformer-Rectifier to ensure the bundle would not be damaged further. If this potentially dangerous condition had not been found, at minimum, an aircraft electrical fire most likely would have occurred. SrA Mathis and A1C Ward's corrective actions prevented a severe degradation to the reliability of the aircraft's electrical system and the possible loss of the aircraft. Furthermore, the combined dedicated efforts and technical expertise of SrA Mathis and A1C Ward prevented unnecessary risk to the pilot's safety and possible catastrophic loss of the aircraft, one of a limited number of premier aerial platforms capable of supporting national interests by performing high-altitude reconnaissance missions.

On Nov. 20, 2002, F-16 aircraft 84-1393 was being launched for the morning mission. The pilot engaged the Jet Fuel Starter (JFS) switch to the "ON" position to begin the normal start sequence. Within a few seconds the starter had normal ignition and the Revolutions Per Minute (RPM) began to increase. Moments later, the RPMs prematurely began to decrease resulting in the ignition going out. At this point, however, the JFS continued to pump fuel into the combustion chamber and automatically attempted to restart. This caused the pooled fuel to ignite and torch out the inlet and exhaust of the JFS. The Fireguard immediately charged the fire extinguisher and monitored the JFS, to see if the JFS could extinguish the fire on its own power. As this was occurring, the crew chief realized the JFS did not have enough energy remaining and requested that the pilot shut down the JFS. During this same time the crew chief scrambled to put the ladder in place so the pilot could expeditiously egress the aircraft. Within seconds, the Fireguard recognized that the JFS could not blow out the fire and used the fire extinguisher to quickly extinguish the blaze. The quick actions of TSgts Herron and Hernandez were instrumental in preventing serious damage to, or loss of, an F-16. Due to their diligence and positive control of the situation the safety of the pilot was never in doubt, while defusing a potentially very dangerous situation.
The 32nd Combat Communications Squadron (32 CCS) exemplifies the motto "Safety First." Personnel inventoried, palletized, and mobilized over 60 tons of tactical equipment, tents, and support items throughout this quarter with zero major safety mishaps. In addition to our normal operations, the squadron deployed for two evaluated exercises. The squadron loaded and packed over 40 M-35, M-900, and mobile communications vans. The 32 CCS then convoyed and deployed all the equipment to Douglas Field, Fort Sill Army Post, and another local training site, all under field conditions. Despite the sheer numbers of personnel and large amount of communications equipment operating under field conditions, the 32 CCS's safe deployments were not through luck. The squadron's "deployment machinery" took great pains in carefully planning the exercises and providing safety oversight to ensure the deployments were safe and successful. If managing to deploy all this equipment was not enough of a safety challenge, in an October exercise, severe thunderstorms unloaded 3 inches of rain turning the camp into a mud pit. After mission completion and teardown, all personnel and equipment returned to Tinker AFB unscathed and individuals were prepared to unpack, inventory, and accomplish post-deployment inspections of the equipment in a safe and secure work atmosphere. December was another important month for the 32 CCS. Not only is it the beginning of the winter holiday season and the time for severe winter weather, but the 32 CCS was tasked to deploy once again to the field on an evaluated Air Expeditionary Force-certification exercise. The squadron's personnel met the challenge head-on and inventoried, palletized, and mobilized over 15 tons of communications gear, packed over 20 M-35s, M-900s, and mobile communications vans. The unit then convoyed and deployed all the equipment to a local field training location. Unit personnel set up and maintained the communications equipment 24 hours a day for 7 days while under intense Ability to Survive and Operate scenarios levied by the inspectors. This deployment not only showed that the unit is capable of deploying to meet its AEF mission, but it also showed the unit knows how to deploy to austere locations and still keep safety at the forefront of its operation. For a unit to move this much equipment and personnel in a 3-month period without a single safety mishap is truly amazing. Late in December, Oklahoma City experienced a particularly unusual snow and ice storm. Unit personnel were especially careful during this storm and experienced zero safety incidents, zero accidents, and zero "fender benders." As always, the 32 CCS's ground safety program was "Out in Front!"

ACC Safety is Proud of All Award Nominees

Capt Carl D. Ingeman
Pilot
522nd Fighter Squadron
27th Fighter Wing
Cannon AFB, N.M.

MSgt William G. Hahn
Maintenance System Evaluator
72nd Test and Evaluation Squadron
Whiteman AFB, Mo.

SSgt Steven J. Hale
Duty Sergeant
32nd Combat Communications Squadron
3rd Combat Communications Group
Tinker AFB, Okla.

SSgt Christopher M. Qualls
Combat Shield Team Member
Det 1, 53rd Electronic Warfare Group
Nellis AFB, Nev.

SSgt Mark E. Dressler
366th Security Forces Squadron
366th Fighter Wing
Mt. Home AFB, Idaho

SSgt Mario N. Maiorana
Quality Assurance Inspector
23rd Fighter Group
Pope AFB, N.C.

TSgt Robert A. Schwartz
NCOIC, Technical Support
820th Red Horse Squadron
Nellis AFB, Nev.
Ground Safety
Award of the Quarter

SrA Pierce’s high energy and perseverance made her selection as the 4th Communications Squadron (4 CS) alternate safety representative a natural choice. She revved up the squadron safety program and breathed new life into squadron safety awareness. She created a team environment and spearheaded unit preparation for the 2002 Annual Wing Safety Assessment and Inspection. Her leadership and attention to detail significantly contributed to the 4 CS earning an “Excellent” rating. Her energy and enthusiasm ensured a full grade level of improvement over the 2001 “Satisfactory” rating. Safety inspectors recognized her in the final report: “SrA Pierce should be commended for [her] superb unit Ground Safety support.” Her innovative and aggressive safety initiatives tremendously improved the overall unit Ground Safety program. SrA Pierce ensured all troops were knowledgeable in the Operational Risk Management (ORM) process. She designed and distributed fliers that were placed in strategic locations throughout each flight. She took advantage of roll calls, flight meetings, and squadron commander’s calls to reach every squadron member with the safety message. She designed and passed out special wallet-sized cards with safety tips plus the ORM process. Each work center was given a safety campaign schedule board that lists the unit safety representatives, the safety topic of the week and the month. Her efforts to ensure the safety of our airmen extended farther than her squadron. When she noticed an individual talking on a cell phone while pumping gas at the base shoppette, she intervened and brought the safety hazard to the attention of the shoppette manager. She provided the wing safety information for this hazard and requested that warning labels be added to the pumps. Her guidance was instrumental in the 4 CS experiencing no reportable mishaps during the past year. The outstanding work ethic of SrA Pierce contributed to the radar work center receiving an “Outstanding” rating and the Personnel Reliability Program receiving an “Excellent” score during the Annual Wing Safety Assessment. SrA Pierce keeps all Job Safety Training Outlines current and tailors them to the unique requirements of each flight. She is routinely praised by Wing Safety for her efforts to improve unit Ground Safety.

Weapons Safety
Award of the Quarter

A dynamic leader recognized throughout the 20th Fighter Wing as an unquestioned expert in the field, TSgt Kast meets all challenges head on. He consistently evaluated work during the 18-month inspections of the M61A1 gun. TSgt Kast provided valuable process improvement input, resulting in a 100 percent pass rate on all quality assurance inspections. His inputs led to improvement of the “critical area” checklist used during every gun system inspection. TSgt Kast works well under pressure. He responded to assist flightline personnel with a 20 mm gun jam during an upload. He quickly assessed the situation and ensured the gun was cleared, ensuring the safety of all involved. He demonstrated his technical prowess by pinpointing the improper installation of the hold back tool. TSgt Kast responded to five hung guns, ensuring all safety procedures were followed. He assisted in the development of a comprehensive and detailed M61A1 gun system malfunction work sheet, providing key outside agencies with updated data, allowing the 20th Fighter Wing Safety to upchannel all reports. TSgt Kast is a positive spokesman of safety issues; he provided a briefing to leadership concerning a probable cause to recent hung guns. He spearheaded a maintenance safety investigation with Capt Shinn to find the root cause of the problem and proposed changes to quality assurance inspections of the gun system to ensure integrity of the system. The change was adopted along with recommendation of a one-time inspection, resulting in no noted problems since.
ACC FY 02 Annual Awards

**ACC INDIVIDUAL AWARD FOR SAFETY**

Lt Col Phillip P. Taber  
49th Fighter Wing  
Holloman AFB, N.M.

**ACC OUTSTANDING AIRMANSHIP AWARD**

Maj Jeffrey G. Olesen  
1st Reconnaissance Squadron  
9th Reconnaissance Wing  
Beale AFB, Calif.

**ACC SPECIAL ACHIEVEMENT AWARD**

Ms. Virginia Stevens  
20th Fighter Wing  
Shaw AFB, S.C.

**ACC FLIGHT SAFETY SPECIAL ACHIEVEMENT AWARD**

49th Fighter Wing  
Holloman AFB, N.M.

**ACC SAFETY CAREER PROFESSIONAL OF THE YEAR AWARD**

MSgt Cliff Motley  
HQ ACC/LG  
Langley AFB, Va.

**ACC EXPLOSIVES SAFETY OUTSTANDING ACHIEVEMENT AWARD**

MSgt Gregory S. Western  
9th Reconnaissance Wing  
Beale AFB, Calif.

**ACC AIRCREW OF DISTINCTION AWARD**

Maj Mike Means, Capt Steve Rodriguez  
9th Reconnaissance Wing  
Beale AFB, Calif.

**ACC MEDICAL ACHIEVEMENT AWARD**

Maj Paul R. Gardetto  
HQ ACC/TRSS  
Langley AFB, Va.

**ACC NUCLEAR SURETY OUTSTANDING ACHIEVEMENT AWARD**

SMSgt Martin E. Sawyer  
HQ ACC/SEW  
Langley AFB, Va.

**ACC EXPLOSIVES SAFETY PLAQUES**

2nd Bomb Wing, Barksdale AFB, La.  
509th Bomb Wing, Whiteman AFB, Mo.  
4th Fighter Wing, Seymour Johnson AFB, N.M.

**ACC NUCLEAR SURETY PLAQUES**

2nd Bomb Wing, Barksdale AFB, La.  
23rd Fighter Group, Pope AFB, N.C.  
7th Bomb Wing, Dyess AFB, Texas  
9th Munitions Squadron, Beale AFB, Calif.

**ACC MISSILE SAFETY PLAQUE**

33rd Fighter Wing  
Eglin AFB, Fla.

**ACC GROUND SAFETY OUTSTANDING ACHIEVEMENT AWARD**

Mr. David L. Watson  
9th Medical Support Squadron  
Beale AFB, Calif.

**ACC OUTSTANDING ACHIEVEMENT AWARD FOR GROUND SAFETY**

33rd Fighter Wing  
Eglin AFB, Fla.
TRAFFIC SAFETY SPECIAL ACHIEVEMENT AWARD
4th Fighter Wing
Seymour Johnson AFB, N.C.

FAA CERTIFICATES
Beale Aero Club, Beale AFB, Calif.
Offutt Aero Club, Offutt AFB, Neb.

NUMBERED AIR FORCE SAFETY PROGRAM OF THE YEAR AWARD
9th Air Force
Shaw AFB, S.C.

WING SAFETY PROGRAM OF THE YEAR AWARD
23rd Fighter Group
Pope AFB, N.C.

WING CHIEF OF SAFETY OF THE YEAR AWARD
Lt Col Richard S. Jackson
9th Reconnaissance Wing
Beale AFB, Calif.

FLIGHT SAFETY OFFICER OF THE YEAR AWARD
Maj George Thomas
4th Fighter Wing
Seymour Johnson AFB, N.C.

FLIGHT SAFETY NCO OF THE YEAR AWARD
SSgt Darien A. Nunn
49th Fighter Wing
Holloman AFB, N.M.

WEAPONS SAFETY OUTSTANDING ACHIEVEMENT AWARD
TSgt Timothy Holley
4th Fighter Wing
Seymour Johnson AFB, N.C.

LOGISTICS SAFETY OUTSTANDING ACHIEVEMENT AWARD
TSgt Ronald L. Pritchett
98th Logistics Squadron
Nellis AFB, Nev.

ACC FLIGHT SAFETY PLAQUES
23rd Fighter Group, Pope AFB, N.C.
2nd Bomb Wing, Barksdale AFB, La.
66th Rescue Squadron, Nellis AFB, Nev.
56th Rescue Squadron, NAS Keflavik, Iceland
49th Test & Evaluation Squadron, Barksdale AFB, La.
4th Fighter Wing, Seymour Johnson AFB, N.C.
93rd Air Control Wing, Robins AFB, Ga.
388th Fighter Wing, Hill AFB, Utah
20th Fighter Wing, Shaw AFB, S.C.

ACC Safety congratulates our Annual Award Winners!

April 2003  The Combat Edge  23
My flight lead is safe, his jet is shut down, and the fire chief has declared the emergency over. The pins are barely in the HARMs before I start thinking about all the things we did wrong.

It only took a few seconds to saturate my cave man-sized brain, and I'm still caught in that post-Emergency Procedure (EP) daze where everything that just happened seems a bit surreal. In a span of 5 minutes, my flight had to deal with a complex EP, complications, and a communications nightmare. The only thing I'm sure of is that there's no "Sim" or stand-up procedure to prepare me for what just happened.

Flying over Iraq can be anything from downright boring to a bit too exciting, and anywhere in-between. Over the past several weeks, it has occurred to me that the most dangerous part of flying in Operation SOUTHERN WATCH may not necessarily be the Iraqi "gunners." Instead, we seem to be in greater danger of running into each other on our way to and from Iraq. A common theme is the communications barrier and lack of "understanding" that seems to prevail between the Saudi controllers and our aircrews. For any given flight, the biggest lessons learned seem to involve "communications." Today was no different.

Any day I get to fly is a good one. Period. Today the dust was actually on the ground (as opposed to the air, in my ears, nose, teeth, and shorts), and a nice easy breeze made the desert almost tolerable. As usual the sunrise was worthy of more than just a cursory glance, and they even served blueberries with breakfast. Getting off the ground, to the tanker, and into the Area of Responsibility (AOR) seemed to be easier than usual. I could actually see the Kuwaiti coast from Iraq, and there were no dust storms to obscure visibility. The Iraqis decided to stay indoors today, so my job as wingman kept getting easier. Stay visual with lead, stay in formation, and stay off the radios.
If there’s one overarching rule to tactical aviation, it might sound something like “Don’t EVER let your guard down.” I let mine down. Somewhere between Kuwait and Prince Sultan Air Base (PSAB), I relaxed. About .69 seconds later, my flight lead made a call over inter-flight that got my attention. “One’s got a hydraulic problem.” I stayed silent, and began closing the formation to provide support. Immediately, lead asked for a vector from me direct to PSAB. I gave him the vector, and he asked me to take communications while he worked the EP. Our initial coordination was sound, we were both on the same sheet of music, and were headed home. All was well.

The problem got worse. “Alright, I’m showing zero B system pressure, my A pressure is erratic, both my generators are showing failed, and my EPU (Emergency Power Unit) is running.” Great. The dreaded PTO (Power Take Off) shaft failure. My only real comfort was that we’d both probably seen this about a hundred times in the simulator. Assuming the failure was contained in the accessory gearbox, there should’ve been no other problem. The EPU should be running on high-pressure bleed air, so hydrazine shouldn’t be a problem yet. I’m already assuming too many “shoulds.”

I responded “two’s supporting,” was cleared to chase, and began running the checklist with lead. I set the IFF to 7700, and made my first call to Saudi control. I called the controller and advised, “Viper 01, emergency, direct PSAB, request higher.” What I heard made me just about swallow my chewing gum. “Viper 01, CONTROL, NEGATIVE!! YOU ARE NOT CLEARED DIRECT, GET BACK IN THE CORRIDOR.”

What? I’m sorry? Back where? I called again, this time more clearly and slowly, as I was sure he didn’t understand. “VI-P-E-R 0-1. E-M-E-R-G-E-N-C-Y. Direct P-S-A-B.” I re-checked my squawks, and waited for the clearance. Again, the reply was “NEGATIVE, VIPER 01. RETURN TO CORRIDOR IMMEDIATELY AND RESUME LAST ALTITUDE CLEARED.”

We continued to climb and continued direct PSAB. I continued to argue with the controller for several more calls, wasting valuable time. During my argument with control, we reached a 1-to-1 glide ratio and continued working the checklists. Lead called again, “One’s got an EPU Run Light,” indicating that his EPU was running on hydrazine, and not on bleed air. “My throttle’s at mil (full power without afterburner), my EPU fuel is decreasing, and I can’t seem to get my EPU Run Light off.” I advised lead to start running the “Abnormal EPU Operation” checklist as well, and turned to the page to give him support. I’ve
got to admit it — I started to sweat a bit. This was getting worse, not better.

Finally, about three calls too late, I made a final call to Saudi control advising them of our intentions and sent the flight to approach. Our newest challenge: we were about 10 miles from the field, I hadn’t called the Supervisor of Flying (SOF), hadn’t called the Top 3 (squadron supervisor), and nobody in the tower knew where we were. All they heard was a call on guard from another aircraft attempting to communicate our intentions to Saudi control. I guess the other aircrews couldn’t believe the Saudi controller’s response either and assumed that control just didn’t understand. At this point, we hadn’t gone over our landing plan with the SOF, hadn’t gotten any last-minute sage advise from our Top 3, and were on a visual downwind to land.

Per the checklist, One used his alternate gear handle to get his gear down, and called “Gear down, three green.” I had time to make a downwind call, get his clearance to land, and make one final advisory call that “Viper 01 will be stopping on the runway, and his EPU is activated.” One had no nosewheel steering and was forced to rely on stand-by braking power to get stopped. Problem is, in this situation, there’s no guarantee that you’ll get the advertised 75 seconds of useful braking. Add another “challenge” to the list: the SOF is an Eagle driver and isn’t familiar with the EP. It would’ve been nice to have him on a hard-line with our Top 3.

One landed brick-one, on speed, but on rollout was asked by tower if he wouldn’t mind clearing the runway for arriving traffic. All the aircraft Return to Base (RTB) had divert fuel, and we had alternate landing plans as well, so it really wasn’t too much of a problem to shut down the runway for 15 minutes or so. One felt no degradation of brake pressure and decided to use differential braking to clear the runway. He got lucky!

After we landed, we had a discussion with the Director of Operations, who was interested as to: (1) doing so, my misprioritization cost us an invaluable opportunity to get additional support from the SOF and Top 3. Had the landing not gone as well, it’s quite possible that several jets would have diverted, potentially affecting our ability to meet the Air Takeoff Orders (ATO) requirements for the next mission. All because two calls weren’t made.

Finally, feeling pressure from a SOF who didn’t fully understand the situation, One rolled the bones and cleared the runway. It worked, but I’m not sure he would have had anything good to say to the mishap investigator had the jet gone off the runway without steering or braking, potentially causing serious damage to the jet or forcing him to eject.

If I had to do it all over again, I would have spent less time arguing with the Saudi controller and spent what little communications time I had where it counted. There’s really no way to adequately prepare for an EP situation like this, as the most complicating factors typically tend to be complete surprises and involve events not easily reproduced in the Sim. For all you check pilots out there, perhaps this has given you some food for thought. How are we training our aircrew to deal with EPs from a support standpoint? We get plenty of practice working our own EPs; perhaps we’ve short-handed ourselves by not training for the types of issues we might deal with in an environment more complex than the standard, single system failure at our home station. I might be wrong, but the smartest way to learn these lessons is probably not by personal experience in the jet.
I was just sitting there at the stoplight waiting for the light to turn green. My wife Vasana was in the back seat with Gabrielle, our toddler daughter.

Gabrielle was telling us her stories and being the doting parents we are, we listened and joined in. We talked about what a beautiful day it was and how we were looking forward to some fine Italian dining at one of our favorite restaurants in Santa Barbara.

My light turned green and after a few seconds I moved out into the intersection.

WHAM! All of a sudden, our plans changed. No Italian food. No beautiful day. No idle chit-chat.

The driver of a 1996 Ford Explorer changed all of that when she ran her red light and broad-sided our car on the driver's side.

It wasn't too bad for me. My side-impact air bag deployed and cushioned some of the blow. Vasana was banged up pretty bad between the car seat and the passenger door.

But Gabrielle? The Explorer had smashed into her side. The only thing protecting her was her car seat. Seconds seemed like hours as we skidded to a stop.

Gabrielle was crying, that can be good or bad. There was shattered glass all around her. Later we even found glass in her diaper. By the grace of God, she was fine, save for a little bump on her cheek.

Well, by the grace of God and Valerie Andersen. Valerie is a certified child passenger safety technician who works at our base family advocacy office.

About a month before the crash, I noticed a bulletin on “Car Seat Safety: If you would like to learn how to correctly install child restraint systems in...
your vehicle ... Individual appointments are available."

Then, I remembered seeing an advertisement saying that four out of five child car seats are installed improperly. Could ours be one of the four?

For a while, I could never find time to get over to have the seat checked. It seemed fine in our car and I'd followed the directions in the owner's manual.

However, something kept telling me, "Do it now!"

There's nobody more precious to my wife and me than Gabrielle, so I put my e-mails and meetings on hold and went to get a lesson on proper child seat installation.

At the lesson I learned from Valerie that Gabrielle's seat was installed improperly — too much lateral play. Valerie told me that in a broadside collision Gabrielle could've been seriously injured or even killed. That was 1 week before the accident.

Now, Gabrielle has a new car seat. But the important thing is that she's alive and telling her stories because Valerie and our base family advocacy office took the time to teach me. Equally important, I took the time to learn before it was too late.
Tent living ain't all that bad if you don't...

Let th' wind, sand and insects bother you.

How do you feel about it, pedo?

All depends on who ya' got for a tent mate.

I don't understand.

Watch.

Tiny... time to get up.

Th' big guy never remembers where he is.
### FY03 Aircraft

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**FY03 Ground**

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**FY03 Weapons**

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**Legend**

- Class A - Permanent Total Disability; Property Damage ≥ $1,000,000
- Class B - Permanent Partial Disability; Property Damage between $200,000 and $1,000,000
- Class C - Lost Workday; Property Damage between $20,000 and $200,000
- * - Non-rate Producing

### Flight Safety Notes

Congrats! For the first time in several months ACC lost no combat assets. This means more weapons and people to fight in these challenging times. Of note to the CAF, two AFRC A-10s had a mid-air during a mission. Luckily both landed safely and more importantly the pilots were uninjured. Our focus has changed from training to deploying and preparing for war. As we do this, we must remember that the training rules we use in peace are a good starting point for executing a war. My first Weapons Officer used to say, "Sure you can gun a guy 180 degrees out in the face, but you'll be bumming when his JFS falls into your lap."

### Ground Safety Notes

In FY03, the command has experienced 13 Class A mishaps resulting in 11 fatalities, and 3 permanent disabilities. All of the fatal and permanent total mishaps involved motor vehicles. Alcohol use was confirmed in 3 mishaps and results are pending for 4 more mishaps. Lack of PPE (helmets, seat belts) was a factor in 4 mishaps.

### Weapons Safety Notes

One Class B mishap was the result of a sub-scale RPV chute deployment problem. Multiple mishaps during the month of January involving explosive tie-down and forklift use have increased the need for extra attention during explosive operations and transportation.
A C-130 Hercules takes a sunrise flight near a tent city at a de-
ployed location supporting Operation ENDURING FREEDOM.