

The Combat Edge March 2002

The Combat EDGE

March 2002



The Combat EDGE

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GENERAL HAL M. HORNBURG, COMMANDER

COLONEL KEVIN W. SMITH, CHIEF OF SAFETY

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Front Cover photo by MSgt. Dave Nolan

Since Sept. 11th, we have all been doing some things differently. Staying alert and protecting our resources have taken on new meanings. Some bases have made temporary physical modifications to their facilities and established new procedures, while others have deployed to unfamiliar locations. Many of these mission and physical changes have resulted in new ways of doing business that come with added hazards and risk. New activities, and the decisions required to steer them safely, can benefit from an Operational Risk Management (ORM) analysis. We need to make sure that they are safety structured for the long term, and a risk analysis is a significant step in that direction.

Unfortunately, as I travel around ACC and talk with commanders, supervisors, and squadron members, it is apparent that ORM has reached a premature plateau. Many leaders are stiff-arming ORM saying they are already doing it because "they do good decision-making." Additionally, some commanders who have risk assessments at their levels are just assuming ORM is being done inside their organizations. That is clearly not always the case for the majority of the wings I have visited in the last couple of months. When I venture off and talk with junior officers and our enlisted personnel, most say they have never heard of ORM or any risk management process.

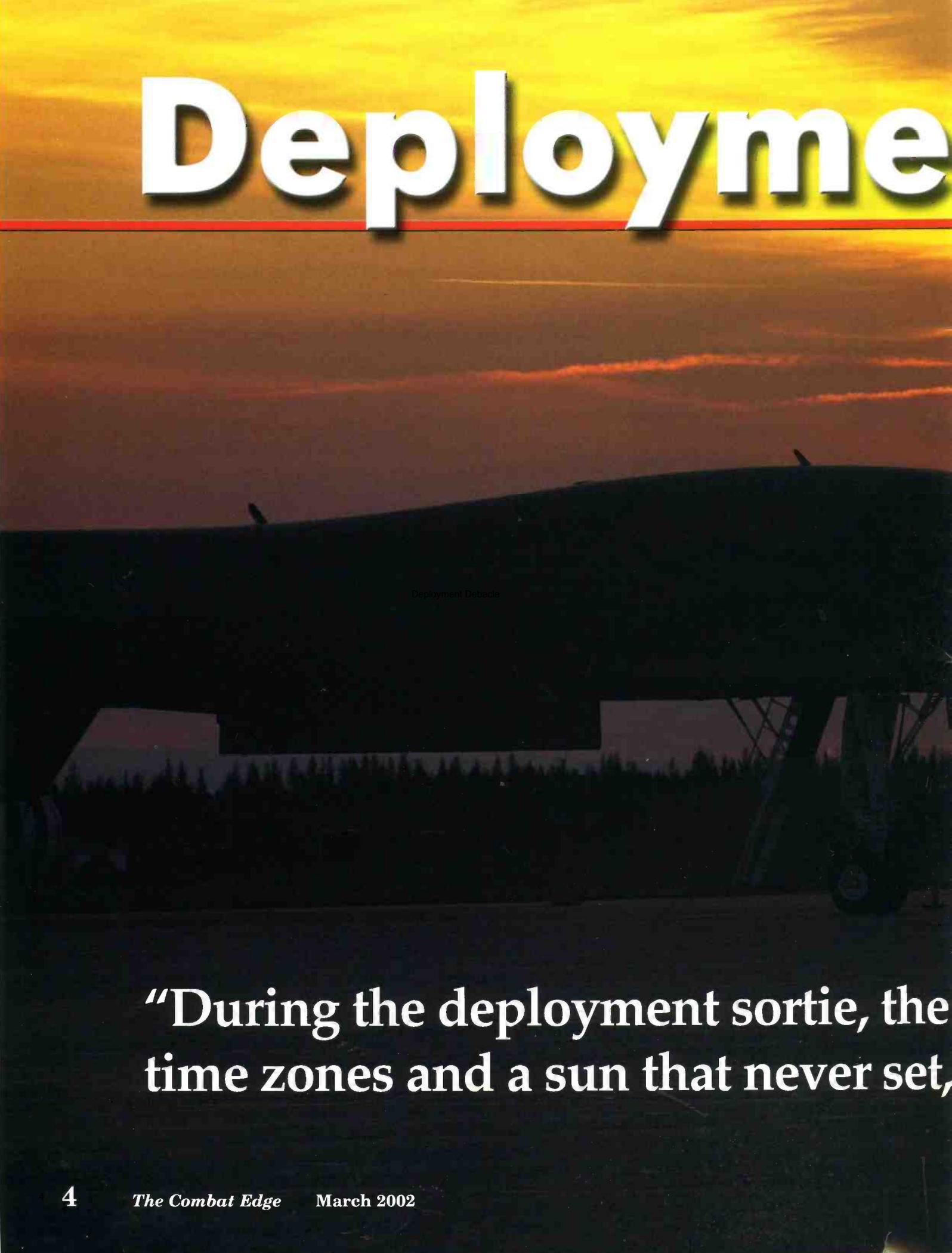
Sound decision-making must be combined with risk management to guide our every activity; otherwise, leaders are losing out on the benefits of ORM. We can and should do a better job implementing ORM and spreading it throughout our organizations. It is a powerful tool that can save lives and resources.

Colonel Kevin W. Smith
Chief of Safety



Photo by SSgt. Christopher Mathews

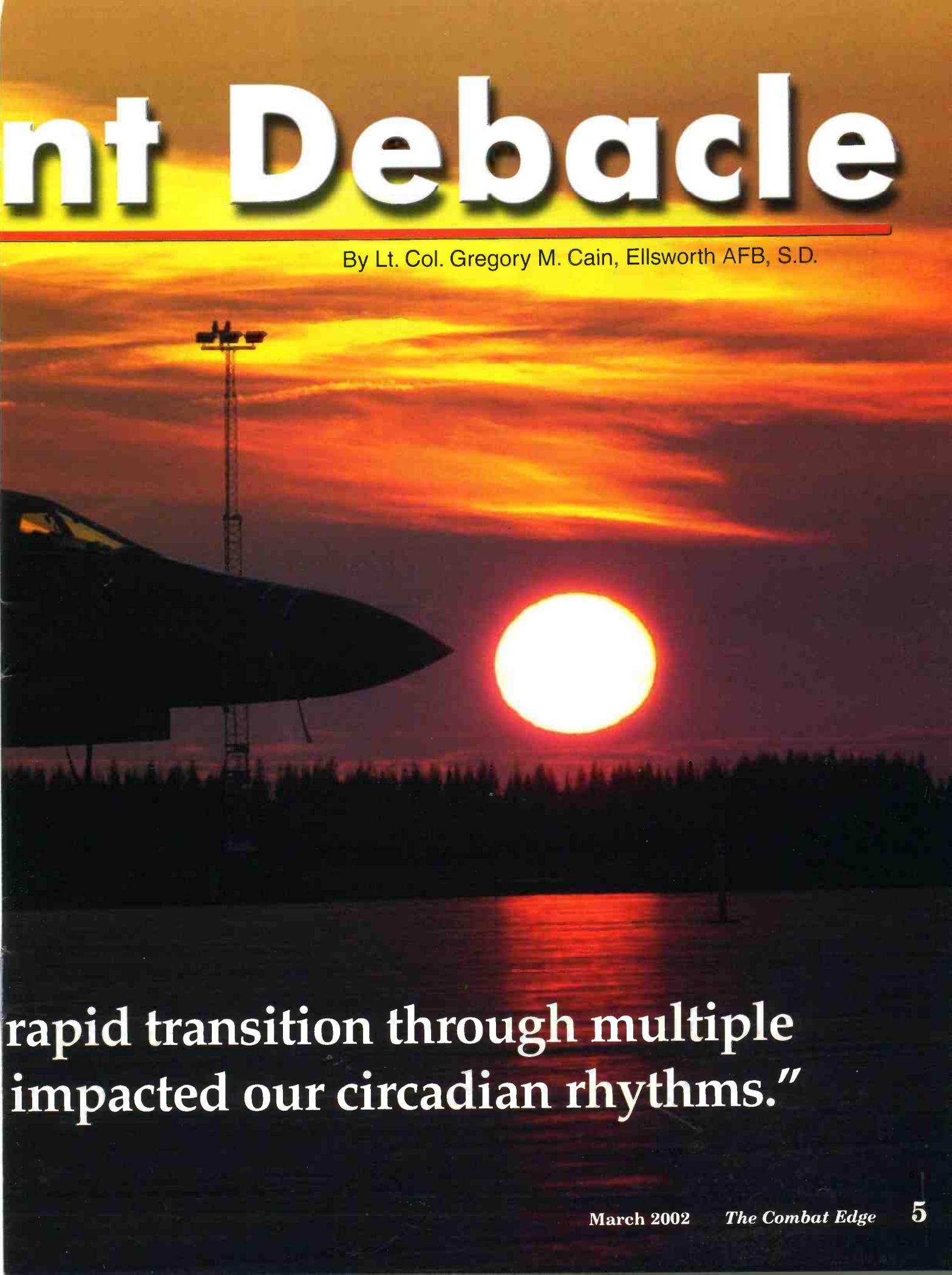
Deployment



Deployment Debacle

“During the deployment sortie, the time zones and a sun that never set,

nt Debaacle

A dramatic sunset over a body of water. The sun is a large, bright orange circle on the horizon, reflecting on the water. The sky is filled with horizontal bands of orange and red clouds. In the foreground, the dark silhouette of an aircraft carrier is visible on the left, and a tall searchlight tower stands in the middle ground. The overall mood is somber and atmospheric.

By Lt. Col. Gregory M. Cain, Ellsworth AFB, S.D.

rapid transition through multiple
impacted our circadian rhythms.”



In 1989, deployment opportunities for the B-1 were limited, to say the very least. Alert commitments, maturation of the aircraft, and aircrew readiness to support higher headquarters' missions were the community's highest priorities. When the call did come in to deploy four B-1s from Ellsworth AFB, S.D., to Andersen AFB, Guam, in support of a major theater training exercise, planning and preparation took place enthusiastically and on a wing-wide

scale. The command post was playing the national anthem over their radio frequency when we finally taxied as a four-ship for the deployment departure. We felt like we were ready for all that lay ahead.

During the deployment sortie, the rapid transition through multiple time zones and a sun that never set, impacted our circadian rhythms. It wasn't too long before some of us felt the desire for some quick shuteye. I cross-checked our position as

number three in the four-ship, coordinated a nap with the left seat pilot, and lowered my helmet visor in an attempt to drift momentarily into "la-la land."

In what seemed like seconds — but was actually more like 15 minutes — I jerked awake. My head snapped upright as if someone had poked me in the ribs. A quick scan around the cockpit quickly proved how fortuitous my awakening was.

To my left, the aircraft commander had mission paperwork spread in front of him, lightly supported by two motionless hands. His head was tilted back, his mouth was agape, and — if it hadn't been for the inner cockpit noise — I'm certain I could have heard him snoring. Under different circumstances, I probably would have burst into uncontrollable laughter, but right there, at that time, I was a lot more concerned than amused.

The interplane situation was bad enough, but when I took a glance outside, I noticed that we were horribly out of position. We were nearly 3 miles north of the formation and, far more ominous, a half-mile in trail of number four, and no one in the flight had made a radio call. I made an interphone call to the aft station and got a weary reply from one of the weapons system officers saying it looked like we were falling out of position. Now that had to be the understatement of the year!

Photo by SSgt. Shane Cuomo

With our focus renewed by the unplanned test of the “big sky theory,” we re-established our formation position, worked through the effects of fatigue, and pressed on to Andersen. As we closed in on Guam, we intended to come up initial and thunderously announce our arrival to the locals and advanced echelon team members, but as Yogi Berra’s saying goes, “It ain’t over till it’s over.”

The number two jet initially mistook the civilian airport for Andersen. Thankfully, they recovered their bearings before actually landing and all four of our B-1s glided onto the base’s tarmac. Our aircraft were intact, but our egos and professional pride had been tarnished. While the final taxi parade to parking looked sharp and impressed the crowds, it gracefully concealed the fact that this four-ship was full of long-duration, mission-fatigue, dulled warriors.

We all realized that safely surviving this long flight had been attributable to luck as much as it had been to skill. Because of this experience, we learned a couple of important lessons that I’d like to pass on to my fellow long-haul aviators:

If you are flying a bomber, tanker, or transport, the odds

and circadian fatigue. It is a factor and it will affect you. Personal acknowledgement of this fact and pre-mission planning will help mitigate its threat.

When you’re moving jets across the pond, take into consideration what an old friend of mine calls the “falling cow syndrome.” Tirelessly and to the

... you need to be aware of the onset signs and symptomatic effects of fatigue.

are extremely high that you will fly long duration sorties in both training and combat situations. Just as with hypoxia, you need to be aware of the onset signs and symptomatic effects of fatigue. Pay close attention to the flight docs in your pre-deployment briefings when they talk about acute fatigue, cumulative fatigue,

point of ridiculousness, “what if” the situations you will encounter. This includes fuel considerations, deployment air base considerations, and even “What would happen if a cow suddenly fell in front of us?” situations. There is no substitute for being prepared to adapt and overcome the vagaries of flight’s dynamic environment. ▶



Photo by SSgt. Shane Cuomo

Low-Level



THINK THROUGH THE POTENTIAL

Back in the summer of 1986, I was in a B-52G that was flying at 0.8 Mach, 400 feet off the deck through a winding low-level route over portions of Wyoming, Montana, and North Dakota. The Director of Operations for the 319th Bomb Wing was the pilot and our non-integral crew had just finished a tactical run against the Forsyth, Mont., bomb plot, which we now call electronic combat ranges.

With absolutely no warning, we flew into a giant cloud

of locusts. The cockpit windows were rapidly coated with locust guts — the window wipers were useless. We quickly reviewed our options and aborted low-level flight, climbing to instrument flight rules. It did not help — we were still getting hit and the brown slime was getting thicker and drier on the windows. We used the radar to look for some rain, but found none. Squawking emergency, we coordinated with center and aborted the low-level route, climbing to a

higher en route altitude using our instruments.

When the locusts first started hitting, we closed the Electro-optical Viewing System (EVS) turrets. As soon as we were clear, we used the wash function to regain some forward vision. We flew straight back to Grand Forks AFB, N.D., and got ready to land, but not before some inadvisable experimentation. The aircraft commander decided to open his window while we were in the pattern. Our speed was about 150 knots indicated air speed. His at-

el Locusts

By Lt. Col. Raymond Turek, Barksdale AFB, La.

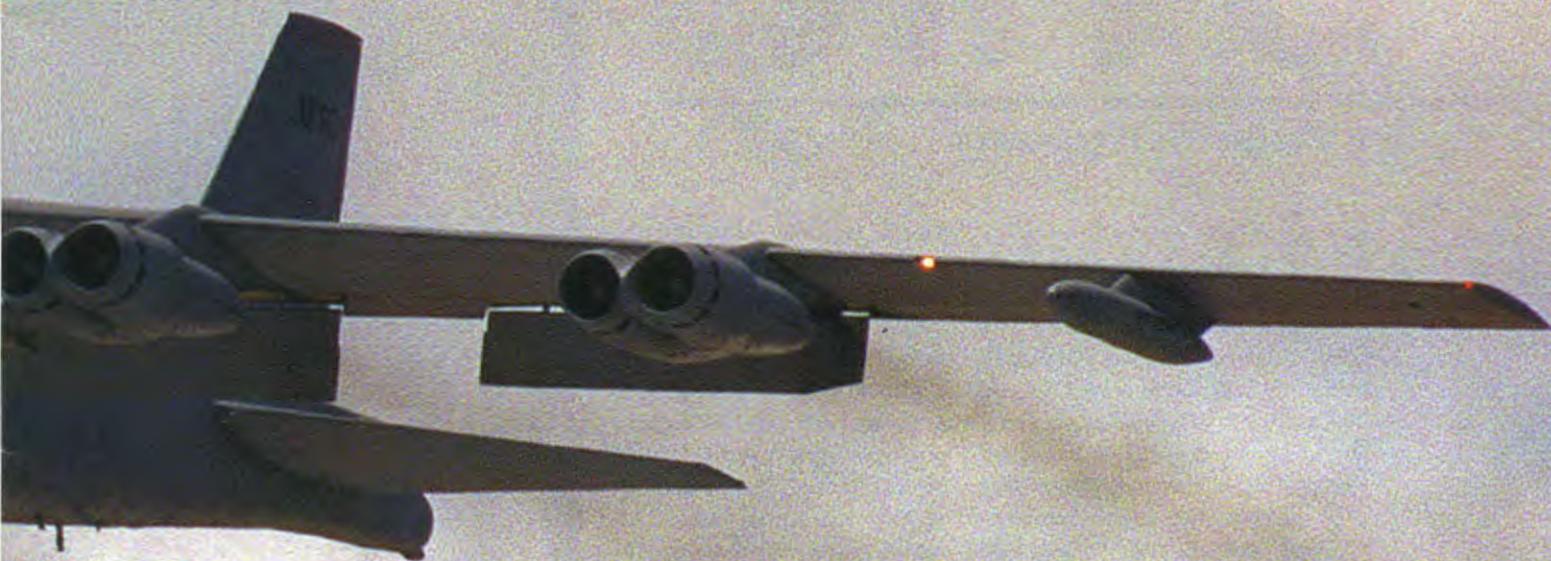


Photo by SSgt. Michael Buytas

CONSEQUENCES OF ANY PLAN...

tempt to clear the window just smeared the bug guts around and almost broke his arm. Thankfully, he was a pretty tough guy after all those years of wrestling with Buffs.

This happened years before the advent of Crew Resource Management (CRM) and Operational Risk Management (ORM). Had we stopped just a moment more to reflect, our zeal to regain better forward visibility would have been tempered with an analysis of the risks and benefits. In this

case, it probably was not worth the risk of injury to our best pilot to try and clear the windshield since we had regained some forward visibility.

Finally, we set up for an instrument landing system approach on instruments and looked out to either side through the aircraft commander and pilot's windows. The navigator called out altitude, the radar navigator confirmed line-up with the runway, the electronic warfare officer contacted the command post, and the pilots used

the instruments and the EVS to bring us safely down.

We learned several things. One, have an abort plan (we did). Two, think through the potential consequences of any plan you hatch, applying CRM and ORM methodologies. Three, use everything available to build and keep your situational awareness. If you keep in mind and follow these three lessons learned, you'll come through your unexpected encounters as safe as possible. ►

Great Balls O'Fire

By Lt. Col. David A. Hagginbothom, Langley AFB, Va.

My first assignment after pilot training was to L.A. — not Los Angeles, but “Lower Alabama.” Flying the CT-39 Sabreliner, we routinely shuttled Air University guest speakers into and out of Maxwell AFB. I moved to “Bama” in the fall and experienced its pretty mild climate throughout the winter and early spring. When late spring rolled around, I was introduced to a weather phenomenon the likes of which I had never seen or imagined possible — the southeastern thunderstorm.

Built by convective heating and fed with Gulf moisture injected from Bermuda highs, they are truly awesome sights to behold. You can literally watch them grow, and they do so at rates faster than you can achieve on your vertical velocity indicator. They can — and often do — top out at stratospheric heights above 60,000 feet. The weatherman isn't exaggerating by much when he says, “Surface to the moon!” These behemoths may be imbedded in storm fronts or majestic solitary cells. Nowadays, ground-based Doppler and airborne weather radars greatly assist in identifying their locations and even tracking their move-

ments, but heavy downpours can still attenuate radar returns and sucker unwary pilots directly into “the cat's mouth.”

Needless to say, avoidance is always the best game plan. Flight manuals and operational guidance usually specify the minimum number of nautical miles separation you ought to maintain between you and Mother Nature's power shower. Yet, you'll probably find someone in your squadron who has had their dental fillings loosened by turbulence, hail, or lightning despite the fact that they had “legal” separation from a storm cell. Those with premature white hair are the most likely candidates!

My Aircraft Commander (A/C) and I were returning from Washington, D.C., one summer evening when we saw the distinctive anvil shaped heads of isolated thunderstorms rising out of the cirrus blowoff at our flight level. Without the luxury of on-board weather radar, I took note of the A/C's decision to descend so that we could





continue to fly in visual meteorological conditions. This meant we would be able to better “see and avoid” the ominous obstacles forming along our route. Our descent achieved this immediate goal, but had the unintended consequence of putting us right at the freezing level. Right now, the gray-haired pilots reading this probably have a good guess what’s gonna happen next.

No sooner had my confidence increased in our ability to safely circumvent the weather on our way back to homebase, when my comfort zone bubble was burst by the sight of streaks and orbs of what unmistakably looked to me to be “the in-flight ‘F’ word” ... FIRE! These eerie, glowing plumes and balls appeared and migrated around the empennage, our windscreens, and even inside the cockpit. Even my ignorance did not blissfully assuage my innate fear of this fascinating phenomenon. My pilot instincts sensed something was wrong, but we had no warning lights or abnormal instrument indications of fire.

In a lot less time than it’s taken you to read the last paragraph, the A/C abruptly pulled both throttles to flight idle, extended the speedbrake, turned our squawk to “emergency,” and commenced a rather aggressive descent. Having seen it done before in World War II movies, my first thought was that we were diving in an attempt to “blow out” the fire in our nose compartment. After only a few

thousand feet, I was quite pleased to note the phantom licks of “flame” had totally disappeared. However, the real logic behind this maneuver — not to mention my copilot clue-bag and admiration for the A/C’s sound judgment — achieved epiphany as I listened to him explain to Atlanta Center the reason for our surprise descent.

After the flight and re-dedicated study of *Weather for Aircrews*, I realized that St. Elmo’s Fire is often a precursor to either a lightning strike or electro-static discharge. Both can be hazardous to pilots and/or their aircraft. I also learned that, statistically, lightning strikes occur more frequently at or within 2,000 feet of the freezing level. I can honestly tell you that there has been nary a sortie over the last 20 years when I did not ask for, note, and employ this knowledge of the freezing level. This information will help you not only avoid icing, but also minimize the chances of other more shocking events.

As we welcome the arrival of warmer weather, realize that we’re also entering annual thunderstorm season. To paraphrase a favorite aviation dictum, “There are no peacetime missions that require penetrating thunderstorms.” We were lucky. We experienced only a cosmic light show and a roller coaster ride. If you press your luck, thunderstorms can kill or cause millions of dollars of damage to your aircraft. Don’t gamble — maintain a healthy respect for, and give wide berth to, any and every thunderstorm you encounter as you continue to *FLY SAFELY!* ►

Small things Matter

By Col. Kevin G. Kenkel, MacDill AFB, Fla.



It was a beautiful day as I made a circular motion with my index finger giving the flight the engine run-up signal. JayJay flight was four F-16 Fighting Falcons with engines screaming at 80 percent power preparing for takeoff. The flight passed a head nod down the line signaling that all engines were operating correctly and all systems were go. As JayJay 1, I led the flight on a 20-second trail departure. I pushed the throttle forward to military power simultaneously releasing the groaning brakes, rotated the throttle grip outboard selecting full afterburner (AB), and rocketed down the runway feeling all five stages of the AB smoothly light.

Life does not get much better than this — four-ship, low level to the range, followed by some

range work and then recovery to Luke Air Patch, Ariz. Do I feel like King Kong or what? Little did I know, the well-oiled sortie of perfection I had briefed would result in the loss of a \$25 million jet and a pilot nearly losing his life.

The flight went like clockwork through the recovery portion. On return to base, the flight stayed in two-plus-two tactical formation as we lined up for recovery at Luke Air Base. Up to this point, things had gone great — low level to a first strike attack within 2 seconds for both JayJay 2 and 4 and seven passes on the range with the new pilots having all bombs well within qualifying criteria. Strafe scores were greater than 50 percent for each flight member — outstanding.

As we finished our Battle Damage checks flying the Valley Recovery into Luke, I heard Luke Approach working a runway change and departing traffic from our designated runway. I also heard a flight checking in for recovery from the northern ranges. While listening to the radio, I heard approach call an air-to-air flight, Cuda 1, informing them they were following a four-ship of F-16s into the overhead pattern at Luke.

The hair started standing up on the back of my neck as I realized they were talking about my four-ship already jinking as F-16s were ripping off the runway at Luke heading south in a climb while we headed north in a descent. Not to worry, we were in the easy part of the mission now — Luke Approach could see our

squawks and would provide vectors to separate all the traffic. Cuda 1 called “Tally-Ho” on the four-ship as JayJay flight accomplished two delayed 90 degree turns to line up on tactical initial at Luke. Cuda 1 followed our lead for recovery to the overhead traffic pattern.

The six aircraft cruised down initial at 300 knots oblivious to any other problems. We checked in with Luke Tower at the initial point calling for a full stop. Just as JayJay 1 and JayJay 2 start their break for the full stop, Luke Tower cleared Rambo flight, a two-ship finishing an instrument approach, for a sequential closed pattern.

BIG PROBLEM — there is no way for my second element to fly an overhead pattern in front of Rambo flight. I quickly called JayJay 3 on the VHF radio and told him to pick up the Rambo flight and pitch behind them for a full stop. JayJay 3 acknowledged the call with a “Tally-Ho” on the traffic and executed his pitchout behind Rambo flight. Cuda flight, now the number seven and eight aircraft in the pattern, would follow behind JayJay 4.

I let go a big sigh of relief. All eight aircraft were now lined up on inside downwind to land although my flight of four was separated by Rambo flight.

“JayJay 1, base, gear down, full stop on the left.”

“JayJay 2, base, gear down, full stop on the left.”

“Rambo 1, base, gear down, low approach.”

“Rambo 2, base, gear down, low approach.”

“JayJay 3, base, gear down, full stop on the left.”

“JayJay 4, base, gear down, full stop on the left.”

“Cuda 1, base, gear down, touch and go.”

“Cuda 2, base, gear down, low approach.”

Not too bad. Tower personnel responded to each call with the right clearance. However, Cuda 2 asked if the right or left runway was open and confusion reined as tower personnel stated unequivocally that only the left runway was open. Barrier maintenance personnel were still rigging the BAK-14 cable on the departure end of the right runway. All of a sudden there was a lot of mayhem and chaos on the radios as I braked my F-16 to taxi speed on roll out.

As I started to clear the runway, I saw an F-16 over my left shoulder about 100 feet in the air,

regard for the F-16 waiting to be dearmed. Tower personnel started the crash recovery with fire trucks racing to assist the downed aircraft. Numerous other calls continued as other airborne aircraft determined where they were going to land given the accident at Luke. JayJay 2 taxied in to the dearm lining up the canopy rails followed by JayJay 3. As JayJay 3 taxied in he called:

“JayJay 1, this is 3.”

“JayJay 3, go ahead.”

“Roger, JayJay 1, I think that was our number four that just crashed.”

Stunned would summarize my state of mind at that point in time. Having flown aircraft for 18 years, I had always prided myself on bringing them back



nose pointed straight down. The aircraft impacted the ground in a nose low attitude creating a fireball that extended to almost 1,000 feet in the air. What happened? How did this F-16 crash? I was silent as I taxied into the dearm area, out of the way, wondering who that was and what had happened.

The fireball created madhouse action as the dearm crew watched the fireball with little

in one piece. Accountability and responsibility — I signed them out at the duty desk and I was responsible for bringing them back. “Uncle Sam” is good enough to let me fly them, I should be responsible and give them back the way I found them. If this does not happen correctly, there should be some delineation as to what went wrong and action taken to make sure a similar incident does not

occur in the future. I could not think clearly for the next 5 minutes.

JayJay 3's comment that the duty desk was calling brought me out of the state of mental confusion. "Focus!" I relayed my information to the duty desk and got the rest of the flight dearmed. As I shut down, I could still see the maintenance expeditor looking at me wondering where the number four aircraft was. There was still a lot of confusion; however, after shutdown, I told him to grab the forms, oil samples, and maintenance records for number four.

I corralled the other two pilots and started walking back into maintenance debrief. "Control the situation." We did not need a bunch of rumors floating around concerning what had happened. Also, I realized that this was a job for the safety folks and we needed to give them our statements.

We finished giving our statements to the safety folks and helped them reconstruct what went on from each cockpit viewpoint. We also gave blood samples at the hospital and went through an extensive interview process in the wing headquarters building.

As I reflect on what happened, I realize this flight emphasized the big things — weapons employment, low level, tactics, and systems operation — effective employment of a combat vehicle.

However, a lot of times it is not the big things that cause problems. Sometimes it is the events we do every day.

How many times in the last few years have we read a safety report that focused on things we were taught in pilot training? As a four-ship rejoins off the range, an accident happens because the pilot did not overshoot properly. A pilot forgets to check his external tanks to determine if the tanks were feeding correctly and runs out of gas. During a touch-and-go landing, the pilot raised the gear early (the flaps also retracted) resulting in a loss of lift and the aircraft settling to the runway without an extended gear. These are the

small things we were taught in pilot training. In this situation, we managed to lose track of an aircraft in the overhead traffic pattern and had a midair resulting in the loss of a very valuable asset.

I relearned a critical lesson on that fine day. The small things must be flown precisely and require that each and every pilot maintain situation awareness and focus to get all the aircraft back on the ground and into the chocks safely. Do not relax for an instant because our working environment is extremely unforgiving. Yogi Berra best summed it up with the phrase, "It ain't over till it's over." Fly safe. ▶





Photo by MSgt. Don Taggart

Forward Firing Munitions Procedures

By MSgt. Mark C. Blevins, Shaw AFB, S.C.

The flightline can be a hazardous place to work for a host of different reasons. One of those reasons is the presence of forward firing munitions. Air Force Manual (AFMAN) 91-201, *Explosives Safety Standards*, defines forward firing munitions as “weapons systems such as guns, rockets, missiles, and flare dispensers.” These items can be especially hazardous because of their directional response and long-range potential if inadvertently activated on the ground. Personnel are to position aircraft so they present the minimum hazard to human and material resources in the event of a mishap. According to paragraph 3.25.1., “Don’t unnecessarily stand or park vehicles in front of or behind these munitions when

power is applied to the aircraft.”

While the potential for this kind of mishap is remote, it has happened in recent operations like DESERT STORM. Personnel were performing maintenance on an A-10 when an AGM-65 missile was accidentally launched. No one was hurt in this case, but the outcome could have been very different if personnel had not been in compliance with AFMAN 91-201.

The benefits of this guidance can also be applied to a problem the Air Force has been recently experiencing with atmospheric pressure build-up in the Guidance Control Section (GCS) of AIM-9 missiles. Clogged vent plugs in the seeker’s cooling system are causing internal gas pressure to build up in the GCS, causing the Infrared (IR) dome

to shatter. The clogging is the result of normal wear and tear. Although hairline cracks in some of the IR domes have been discovered, other IR domes have completely blown out, shooting glass forward as far as 50 feet. This has happened on captive carry and live missiles.

The missiles and guns on an aircraft present several hazards to personnel and equipment during loading and when power is applied to the aircraft. Those of us who work on the flightline need to be aware of our surroundings and follow the applicable guidance. Remember that guidance is there because of lessons learned by our predecessors. Safety results from knowing the procedures and precisely complying with them. ►



Global Hawk

Global Hawk



The Global Hawk Unmanned Aerial Vehicle (UAV) provides battlefield commanders near-real-time, high-resolution, reconnaissance imagery. Flying at extremely high altitudes, Global Hawk can survey large geographic areas with pinpoint accuracy to give military decision-makers the most current information about enemy resources and personnel. Through satellite and ground systems, the imagery can be relayed in near-real-time to battlefield commanders.

Wingspan: 116 feet ● Length: 44 feet ● Range: 12,000 nautical miles ● Altitude: up to 65,000 feet ● Speeds: approaching 400 mph ● Endurance: 35 hours.

Squadron Flies 400th Combat Sortie

By Lt. Col. Douglas Lefforge
28th Air Expeditionary Wing Public Affairs



OPERATION ENDURING FREEDOM (ACCNS) — The 20 EBS flew its 400th combat sortie Jan. 20.

“We have been privileged to contribute to American airpower history,” said the unit’s squadron commander. “From the precision weapons, the persistent ferocity and flexibility in our combat operations, to the seamless integration of Reserve forces into this mission, we have formed a true total force.”

Combining to build one squadron were active duty and Reserve aircrew members, crew chiefs, and specialists in maintenance, supply, weapons, life support, intelligence and other specialties.

“This deployment was also the first time active duty and Reserve forces integrated into a single B-52 squadron that flew combat missions together,” said the unit’s squadron commander. “The entire integration from day one was completely seamless.”

Together, members of the 20 EBS prepared, launched and flew B-52s with newly configured weapons aboard, delivering accurately on al-Qaeda terrorist camps and Taliban targets throughout Afghanistan. The unit’s squadron commander said that teamwork resulted in the unit’s astounding success in Operation ENDURING FREEDOM.

“We flew nearly 5,000 mishap-free flying hours in just over 100 combat sortie days,” the colonel said. “This by far exceeds our annual flying allocation of 4,400 hours back home — and we did it in 4 months.”

For the first time, 20 EBS weapons troops loaded 2,000-pound bombs called GBU-31 Joint Direct Attack Munitions for combat. The bomb contains a global positioning system and an inertial navigation system in the nose cone and a “smart” tail kit to navigate the bomb to its target.

Dispensing the CBU-103 Wind Corrected Munitions Dispenser, a cluster bomb, was another successful first for the 20 EBS. This bomb is designed to make small corrections to its position based on winds to ensure its accuracy at the target, which is usually light armored vehicles or troops in the open.

“Mail bombs” were a first for the 20 EBS too. The M-129 is a bomb casing that holds thousands of leaflets with messages designed to strike fear and confusion into the enemy and to communicate with friendly forces and noncombatants.

The B-52’s close air support missions involved communicating with forward air controllers on the ground near enemy lines. They passed target coordinates to the crew of the B-52. The navigator loaded the coordinates into the weapons system computers, confirmed the information with the FAC, and deployed precision-guided munitions to within feet of their targets from 7 miles up.

“Our weapons troops loaded over 7,000 bombs of every type made to be carried by the B-52,” said Maj. Karen Riede, the squadron maintenance officer. “We even loaded two AGM-142s in under 36 hours,” a procedure that normally takes up to 1 week.

“The launch reliability rate for the B-52s on the ramp here is an unprecedented 99 percent,” said Riede. “And the mission success rate is an astounding 98 percent. That’s pretty remarkable for a 40-year-old airplane.”

(Editor’s Note: Some deployed people chose not to be identified.)

Deployment Kits Will Help Physical and Mental Health

By SSgt. Bryan Bouchard
4th Fighter Wing Public Affairs

SEYMOUR JOHNSON AIR FORCE BASE, N.C. (ACCNS) — Airmen deploying from here have a new tool to help them maintain their physical and mental health.

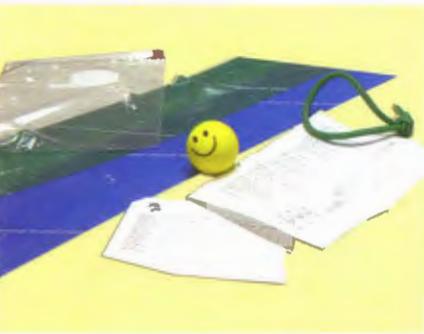
The “deployment stress kit” includes exercise bands, a stress-reduction squeeze ball, and “stress cards.” It was developed by the commander of the Health and Wellness Center here and members of Seymour’s Integrated Delivery System (IDS) committee.

While stationed at Patrick AFB, Fla., nearly 4 years ago, Lt. Col. Pat Sargeant, the HAWC commander, developed a way to take a “gym in a bag” on temporary duty assignments.

Sargeant put together a small bag containing elastic strength-training bands called Thera-bands. Thera-band products were originally designed for physical-therapy patients. But Sargeant, a licensed physical therapist, said they are excellent for moderate strength training as well.

She said the idea to create the stress deployment kits came from the base’s IDS committee, a group of representatives from base agencies charged with improving life for Seymour people. “They wanted to give deployed airmen a better way to reduce stress than smoking, drinking alcohol, or overeating,” Sargeant said.

From the HAWC came the Thera-band products; a guide for the bands complete with diagrams; an exercise log; and a stress-reduction squeeze ball. The folks at Family Advocacy added stress cards, which use different colors to display a person’s stress level after a press of a thumb against the card.



The on-the-go convenience is especially

important to airmen who are deployed to a bare base, something people at the 4th Fighter Wing here are trained to do.

“People can use the kits on an airplane, in their billets — wherever they happen to be,” Sargeant said. “In a bare-base situation, they can work on their fitness before (the services unit) is able to set up a deployed fitness center.”

People who deployed recently from Seymour were offered the kits at the Personnel Deployment Facility (PDF), before leaving.

TSgt. Lee Wright of the Family Support Center was there when the airmen processed through the PDF on their way to Operation ENDURING FREEDOM.

“After we explained to the airmen what the bags were all about, they were very well received,” Wright said.

“With a combination of the Thera-bands, aerobic activity, and the Air Force-mandated push-ups and crunches, deployed airmen can maintain or even improve their physical fitness — one of the best stress-relievers around,” Sargeant said.

ACC Safety is Proud of All Our Award Nominees

Capt. Todd M. Emmons

F-117A Instructor Pilot
Det. 1, 53rd Test Group
49th Fighter Wing
Holloman AFB, N.M.

SSgt. Michael P. Kosik

Aerospace Propulsion Quality Assurance Inspector
49th Fighter Wing
Holloman AFB, N.M.

SSgt. Bradley T. Houchins

Aerospace Propulsion Technician Craftsman

A1C. Matthew Gros

Aerospace Maintenance Craftsman
45th Reconnaissance Squadron
55th Wing
Offutt AFB, Neb.

SSgt. Bruce Hoskins

Tactical Maintenance Crew Chief

SSgt. Michael Martin

A1C. Regis Peoples

A1C. James Ross

Weapons Load Crew
60th Fighter Squadron
33rd Fighter Wing
Eglin AFB, Fla.



Pilot Safety Award of Distinction

Maj. Jeffrey Olesen was flying his U-2S above 70,000 feet in support of Operation SOUTHERN WATCH. Three hours into the sortie, the engine began to experience “rollbacks.” The fuel-flow fell toward zero with an accompanying severe loss of thrust. The rollbacks each lasted approximately 1 second, followed by the engine accelerating back to full power. Olesen turned immediately toward Prince Sultan AB (PSAB), Saudi Arabia, and followed the technical order guidance of placing the engine mode to secondary. In secondary mode, however, the engine began to vibrate violently, causing the aircraft to shudder, and all the engine instruments began to roll back toward zero. Expecting imminent engine seizure, Olesen placed the engine mode switch back to primary, which significantly reduced the vibrations. As the rollbacks became progressively more pronounced and more frequent, Olesen tried to stabilize the engine at different revolutions per minute settings. Realizing that the engine could flame out at any moment and that the plane would not sustain sufficient thrust for a return to PSAB, Olesen began a descent toward a divert field 80 miles away. At idle power, the rollbacks

subsided. At 20,000 feet in, Olesen tried once again to find a reliable power setting other than idle, hoping that the difference in altitude may have helped. Unfortunately, idle continued to be the only safe throttle setting, which meant that, while he would have the benefit of electric and hydraulic power, there would be absolutely no go-around option on this approach. Once he was definitely within flameout glide range of the divert field, Olesen lowered the landing gear and configured for a flameout landing. There is no checklist that covers a descent from high key with the engine stuck in idle. Olesen had to rely on his best judgment to establish a high key altitude and maneuver to a safe landing. He also had to land without the assistance of a qualified “mobile” officer which is a U-2 pilot that follows the aircraft down the runway in a “chase” car, giving assistance over the radio. Maj. Olesen descended in a series of figure eights over the field, managing his energy so as to arrive at the proper high key altitude. He then flew a flawless flameout pattern and landing, preserving a valuable national asset for future use.



Maj. Jeffrey G. Olesen
99th Reconnaissance Squadron
9th Reconnaissance Wing
Beale AFB, Calif.

Ground Safety Award of Distinction

On Oct. 5, 2001, at 7:00 p.m., A1Cs. Ted Rossman and Travis Turnbow were heading east on Interstate 10 approximately 40 miles east of Defuniak Springs, when they came across a semi-truck traveling approximately 75 miles per hour. They noticed sparks coming from the trailer’s left rear axle. Rossman, upon seeing the sparks, pulled along side the truck as Turnbow attempted to get the driver’s attention. They managed to get the driver to pull over to the interstate shoulder. They informed the truck driver of the dangerous situation with his wheels. Upon further investigation, they discovered the tires on the left rear axle were blown and the axle was twisted at an unsafe angle. They assisted the truck driver by escorting him to the next exit, which was a few miles away. The clear thinking and decisive ac-

tions of A1Cs. Rossman and Turnbow prevented the truck driver from possibly losing control of the vehicle and causing a major accident.



A1C. Ted A. Rossman
58th Fighter Squadron
33rd Fighter Wing
Eglin AFB, FL.



A1C. Travis L. Turnbow
58th Fighter Squadron
33rd Fighter Wing
Eglin AFB, FL.



Aircrew Safety Award of Distinction

Approximately 4 hours into a high-altitude training mission, instructor pilot, Maj. Michael Means, and upgrade pilot, Capt. Stephen Rodriguez, encountered an electrical malfunction of a type that had never occurred in the history of the U-2. Flying above 60,000 feet in one of only four two-seat U-2s, the crew began to lose electrical components one by one. Digital airspeed and altitude readouts disappeared, followed by the loss of fuel quantity, gear position indicators, radios, navigation equipment, and emergency backup systems. In an attempt to preserve emergency battery power, the crew shut down all electrical equipment. With no speedbrakes or lift spoilers to increase drag, the aircraft took nearly 90 minutes to descend. Means had to hand-fly the aircraft without any trim. The U-2 produces so much lift even at idle power, that to land safely without flaps and speedbrakes, the approach must be flown on a 1 1/4 degree glide slope, approximately 2 knots above the onset of stall buffet. Means could not afford to fly even a couple of knots faster, as every additional knot of airspeed when crossing the threshold will cause the aircraft to float an additional 1,000 feet down the runway before it lands. With no fuel quantity indication, Means had to calculate this critical approach speed based on his best estimate of the fuel remaining, and the feel of the aircraft as he slowed it down. Rodriguez, on only his sec-

ond high altitude, calmly ran all normal checklists to prepare for the emergency landing. He lowered the landing gear using the emergency manual system. However, there were no cockpit indications to confirm that the gear was locked in position. When Rodriguez tried to turn the battery back on, it was dead so there was no intercom for the approach and landing. Means flew a flawless no-flap approach, and the aircraft came to rest 8,000 feet down the runway. Maj. Means and Capt. Rodriguez should be commended for their quick, smart actions and superior pilot abilities, which were directly responsible for the safe recovery of a national asset.



Maj. Michael A. Means, Capt. Stephen C. Rodriguez,
1st Reconnaissance Squadron, 9th Reconnaissance
Wing, Beale AFB, Calif.

Flightline Safety Award of Distinction

MSgt. Thomas J. Niznik
9th Reconnaissance Wing
Beale AFB, Calif.

While on a lengthy deployment in support of Operation JOINT FORGE, MSgt. Thomas Niznik twice discovered discrepancies that could have resulted in the loss of aircraft. While performing an Exceptional Release on a U-2, Niznik took the initiative to perform a walk-around inspection. He noticed a major discrepancy on the left wing super pod. The aft portion of the super pod extends 3 to 4 feet aft of the wing's trailing edge and is held in place by 24 screws. The pod's aft body cone was held on with only one screw. If this discrepancy had gone uncorrected, the cone would have separated from the pod mid-body in flight. Wiring bundles connecting equipment in these two sections of the pod would then

cause the cone to flail against the aircraft airframe, wing, and trailing edge flaps, causing severe structural damage and possible departure from controlled flight. Once the wiring bundles snapped, the cone would have blown into the vertical and horizontal stabilizers, resulting in possible loss of a U-2 and pilot. In a second instance on the same deployment, Niznik was performing a walk-around on a U-2 that was preparing to depart the next morning. He noticed a small hole in the tail cone that appeared to be the result of a burn-through and identified this as the telltale sign of a lightning strike. The existing technical order data did not provide inspection guidance for this type of event. After red-Xing the aircraft forms, Niznik called home station for a depot assist, recalled off-duty crewmembers and a Lockheed technical representative to perform troubleshooting actions, and developed a game plan for inspecting the airframe, accessory, avionics, and sensor packages. MSgt. Niznik's diligence and safety-first team attitude resulted in the prevention of additional damage to a valuable national asset.

ACC FY 01 Annual Awards



COMMANDER'S AWARD FOR SAFETY

12th Air Force
Davis-Monthan AFB, Ariz.



OUTSTANDING ACHIEVEMENT SAFETY AWARD

552nd Air Control Wing
Tinker AFB, Okla.



OUTSTANDING UNIT WEAPONS SAFETY AWARD - CATEGORY I

366th Wing
Mt. Home AFB, Idaho



EXCEPTIONAL WEAPONS SAFETY INDIVIDUAL AWARD

MSgt. Gary L. Beasley
5th Bomb Wing
Minot AFB, N.D.



SAFETY OFFICE OF THE YEAR AWARD - CATEGORY I

2nd Bomb Wing
Barksdale AFB, La.



DISTINGUISHED FLIGHT SAFETY OFFICER AWARD

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



SAFETY OFFICE OF THE YEAR AWARD - CATEGORY II

552nd Air Control Wing
Tinker AFB, Okla.



DISTINGUISHED FLIGHT SAFETY NCO AWARD

MSgt. Joseph H. Gray
2nd Bomb Wing
Barksdale AFB, La.



DISTINGUISHED CHIEF OF SAFETY AWARD

Lt. Col. William H. Stimpson
2nd Bomb Wing
Barksdale AFB, La.



DISTINGUISHED GROUND SAFETY ACHIEVEMENT AWARD

SrA. Nicholas Butterfield
509th Maintenance Squadron
509th Bomb Wing, Whiteman
AFB, Mo.



DISTINGUISHED PILOT SAFETY AWARD

Capt. Joseph N. Daley
357th Fighter Squadron
355th Wing
Davis-Monthan AFB, Ariz.



ANNUAL TRAFFIC SAFETY AWARD - CATEGORY I

5th Bomb Wing
Minot AFB, N.D.



DISTINGUISHED FLIGHTLINE SAFETY AWARD

**SSgt. Mark Isaacs, SrA.
Albert Weathersby, A1C.
Daniel Timper 71st Fighter
Squadron
1st Fighter Wing, Langley
AFB, Va.**



EXCEPTIONAL GROUND SAFETY LEADERSHIP AWARD

**MSgt. David B. Buentello
33rd Fighter Wing
Eglin AFB, Fla.**



DISTINGUISHED CREW CHIEF OF THE YEAR AWARD

**SrA. Guy W. Arndt, Jr.
A1C. William D.
Timmons
393rd Bomb Squadron
509th Bomb Wing
Whiteman AFB, Mo.**



SUPERIOR PERFORMER IN GROUND SAFETY AWARD

**MSgt. Yance A. Childs
1st Fighter Wing
Langley AFB, Va.**



DISTINGUISHED AIRCREW SAFETY AWARD

**Cpts. Ed Lengel, Kate Hene,
Steven Gregure,
TSgt. Derek Pinkerton,
SSgts. Kevin Stewart,
Patrick Slavin, Richard Dixon
66th Rescue Squadron
57th Wing
Nellis AFB, Nev.**



CMSGT PAUL A. PALOMBO AWARD FOR DISTINGUISHED GROUND SAFETY NEWCOMER

**TSgt. Deanna M. Croxen
366th Wing
Mt. Home AFB, Idaho**



SAFETY SUSTAINED SUPERIOR PERFORMANCE AWARD

**MSgt. Fred Bonner
28th Test Squadron
Eglin AFB, Fla.**



ANNUAL UNIT GROUND SAFETY AWARD - CATEGORY I

**4th Fighter Wing
Seymour Johnson AFB, N.C.**



DISTINGUISHED WEAPONS SAFETY ACHIEVEMENT AWARD

**TSgt. Gary M. Spangler
28th Munitions Squadron
28th Bomb Wing
Ellsworth AFB, S.D.**



ANNUAL UNIT GROUND SAFETY AWARD - CATEGORY II

**552nd Air Control Wing
Tinker AFB, Okla.**



OUTSTANDING UNIT WEAPONS SAFETY AWARD - CATEGORY II

**85th Group
Keflavik NAS, Iceland**

Using the “O



Recently, my wing received a Staff Assistance Visit (SAV) from our Numbered Air Force (NAF) Safety office. Part of the SAV involved the NAF Chief of Safety interviewing a randomly selected group of commanders and asking them about their safety program. My maintenance squadron had just completed our annual ground and weapons safety inspection with flying colors so my chest was inflated and my voice was deeper as I prepared to talk about our

implementing Operational Risk Management (ORM) in my squadron. Fortunately, I was just as prepared to answer that question. I hope my response helps others with their ORM programs.

When I arrive at an organization, one of my first priorities is to define my goals and expectations so I avoid the guessing game that sometimes takes place when a new commander or supervisor takes charge. This eliminates about 6 months worth of mystery. Like every

commander before me, I had drafted my commander's safety letter that conveyed my safety policy to all my airmen. Despite how great it looked on paper, I began to wonder how many of my airmen below flight chief were really reading

ing or have just completed orientation at the base's first term airmen center. Their heads are spinning with too much information, and they already have forgotten why some of it was important. I had to find a way to make ORM more than just another acronym they had to remember so I drew them a picture of my "ORM box." This box is how I define the risk limits I'm willing to let my maintainers take. It is framed on each side by the following decision tools they use every day.

SIDE ONE AIR FORCE INSTRUCTIONS

The first side of my box is framed by Air Force Instructions (AFIs). These instructions provide guidance for how we manage our particular squadron, flight, section, or maintenance operation. For the combat aircraft maintainer, the overarching instructions are AFI 21-101, *Maintenance Management of Aircraft*, and Air Combat Command Instruction 21-101, *Objective Wing Aircraft Maintenance*.

These two instructions, along with a host of others, provide a framework for the maintenance mission to produce sorties both during peacetime and in combat conditions.

"... define the risk limits"

"...mitigate risks"

"...commanders accept the risks"

success. Although the safety chief was interested in our success, this wasn't quite what he was looking for. After a few minutes of reading between the lines of his questions, I realized that he wanted to know how I was

and heeding what I said.

I began attending the monthly newcomers' briefing. About two-thirds of the troops present are airmen on their first enlistment. Half of them are brand new troops fresh from technical train-

ORM Box”

By Lt. Col. Steven J. Morani, Hill AFB, Utah



Imagine going from base to base without a common set of rules and procedures. My cranium hurts just thinking about it. Each time a troop was to PCS, they would have to relearn and redefine the way they were expected to do business. They would have to figure out by trial and error which methods are the most efficient and the safest to meet mission requirements. This is way too risky.

AFIs standardize organizational structure and procedures to enable routine decision-making that uses proven methods. In the case of AFIs, we have learned that less isn't always better. The more definitive the guidance provided, the less likely of venturing off in a direction that will lead to failure.

SIDE TWO SAFETY STANDARDS

The second side of the box is framed by Safety Standards. These include AFOSH standards, safety operating instructions, and occupational health standards that minimize exposure to risk. By adhering

to proven safety practices and protective measures, risk of personal injury can be minimized. This side of the box is there for personal protection. When a troop chooses to step over this side of the box, personal injury usually follows.

Every Monday morning, my squadron safety NCO hands me a folder that contains mishap reports from the previous week or weekend. In almost every case, they are preventable. In my squad-

ron, back injuries seem to top the list. During my squadron immersion, I went out to Ammo and built up some BDU-33 practice bombs with a crew. Once assembled, we had to stack them in a container that was about 3-feet deep. As I leaned over the container to lay the first row of bombs into the container, I felt my back talking to me. Because I had learned this lesson before, I went to the support section and cinched on a back support. In this case, common sense kicked in. Often with ORM, if it doesn't

ORM Box

Air Force Instructions

T.O. 11A-1-63 ACCI 21-101

Decision Tools

AFMAN 91-201 AFI 21-101

AFOSH Std 91-5

Technical Guidance

Commander's Intent

Safety Standards

look or “feel” right, it probably isn’t.

SIDE THREE TECHNICAL GUIDANCE

The third side of the box is framed by Technical Guidance. The Air Force spends a lot of money on Technical Orders (T.O.s) to ensure our maintainers perform each task correctly. In my mind, there is never a good reason to not use a T.O. Many of the warnings and cautions in the T.O.s are written in blood as a result of technicians getting injured by taking unnecessary risks. I guarantee no responsible leader expects a maintainer to perform the numerous complex tasks each day by memory.

I’m sure all of us can name occasions where a mishap occurred as a result of a technician failing to follow technical guidance. Recently there was an e-mail circulating about an F-15 crew chief that had attempted to service a tire with high-pressure nitrogen. The tire exploded and literally cut this young man in half. Did he knowingly take a risk and use the wrong pressure cart? We’ll never know for sure since we can’t ask him.

SIDE FOUR COMMANDER’S INTENT

The fourth and final side of the box is framed by Commander’s Intent. This is the mission piece. By commander’s intent I state what, when, and how we as a squadron will support the mission. As you know, there is always a suspense involved. How quickly the squadron must accomplish the mission within the suspense time defines the mission pressure the technicians are under. This is where a clear understanding of ORM comes into play, making it the critical decision point for our airmen.

Let me explain using this scenario. It’s raining, the wind is blowing sideways, and you have a 40-foot trailer of MK-82 bomb bodies to download. Swing shift needs these bombs to complete the frag order on time. Your crew is wet, tired, and approaching the end of their 12-hour shift. If the crew chief has a clear understanding of ORM, this situation should make the hair on the back of his neck stand straight up. This internal alarm should signal the crew chief that he is wrestling with a decision that may take him outside the box. What should he do?

KNOW YOUR LIMITATIONS

The crew chief should call a “knock-it-off.” In my squadron, everyone has the ability to call a “knock-it-off” if they determine they are about to step outside the box. They take that step out of the box if they have to violate a T.O., safety standard, AFI, or determine they have to deviate from their commander’s intent to achieve the mission. They have the authority and responsibility to make deci-

sions all day within the box, but the decision to step outside resides at the senior levels of squadron leadership, and sometimes higher.

The box is there to protect them, the pilots they support, and to protect valuable Air Force equipment. The more conservative maintainers may choose to operate at the center of the box. I had a technician once whose call sign was “Flash.” Flash operated at the center of the box. He was usually slower than his peers. But Flash rarely made a mistake and rarely ever had a repeat or recurring discrepancy. Some may choose to operate at the fringe of the box and that’s OK too. These are usually the more experienced and confident technicians. Knowing the limits and operating within them is the foundation of solid ORM.

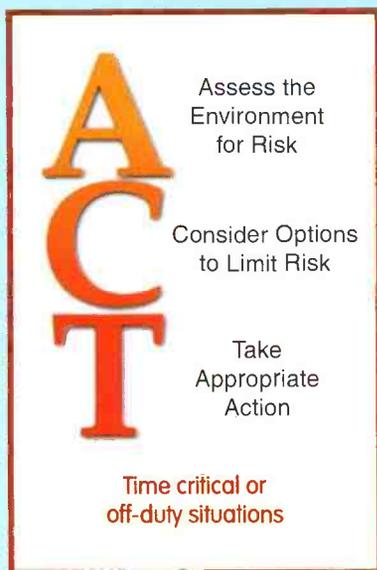
So there you have it, ORM made simple. The tools are already there. Whether they know it or not, most are already practicing good ORM. Making your troops aware of the process will ultimately make it better — just define the box! ▶



Photo by MSgt. Val Gempis

Operational Risk Management

Lt. Col. Craig K. King, ACC Flight Safety



From virtually day one of the Air Force's adoption of Operational Risk Management (ORM), we in Air Combat Command (ACC) have consistently promoted three themes:

1) **Commanders and supervisors must tailor their units' use of ORM to their mission and local hazards.** There is no single ORM application or "program" that will work universally well for every unit in the command. Unique missions, hazards, environment, personnel, resources, and countless other factors combine to render that approach ineffective. Too little attention paid to risk management will result in blind acceptance of risk from hazards that could have been identified. Too much formal ORM — applied blindly — could introduce its own hazard: inefficiency (promoting the notion that an hour invested in ORM must be more valuable than the same hour spent doing something else). Commanders must ensure the proper balance for their organization.

2) On-duty responsibilities entail risks with widely varying levels of complexity — the amount of ORM training required for sound risk management varies accordingly. Off-duty pursuits also involve risk and account for the preponderance of our serious mishaps. **ACC coined the term "Personal Risk Management (PRM)" to instill a risk-consciousness that carries over into off-duty hours, which is especially important for our younger troops.** We authored and approved an abbreviated three-step ORM process called "A.C.T." (details available at <https://wwwmil.acc.af.mil/se/4.1.act.htm>) to account for situations where the principles of ORM apply (i.e., always), but where the level of complexity doesn't demand the more formal Air Force six-step process or when the time available doesn't allow it.

3) **Accomplishing ORM is not optional.** The Air Force is irrefutably committed to our understanding and application of it, supported by Air Force publications and messages too numerous to list.

One of the toughest aspects of promoting the application of ORM is getting leaders at the unit level to think out for themselves how to best utilize it to educate their people, support their mission, and preserve their resources. We at ACC Safety extend our thanks to Lt. Col. Morani for his ORM article. It demonstrates that the 388th Equipment Maintenance Squadron at Hill AFB, Utah, has done just that. Their approach may or may not match yours, but they are well on their way to integrating and sustaining ORM that works for them. We would like to publish examples of successful unit-level applications of ORM — please send us yours!

Manage Your Risk !

Always Ask		Likelihood Something Can Go Wrong ?				
		Frequent	Likely	Occasional	Seldom	Unlikely
What Would Be The Impact ?	Catastrophic	Extreme	High	Medium	Low	Low
	Critical	Extreme	High	Medium	Low	Low
	Moderate	Extreme	High	Medium	Low	Low
	Negligible	Extreme	High	Medium	Low	Low

Who's Decision ?

- Extreme: OG / CC
- High: SQ / CC
- Medium: Supervisor
- Low: Yours

The matrix above is an example of one wing's approach toward elevating decisions to the appropriate level. Chart courtesy of 49 FW/SEF.

The sun had just cracked the horizon over Sunrise Mountain that morning at Nellis AFB, Nev.

Everyone was in a great mood because the Thunderbird team was going to be on the road again. Midland, Texas, was going to be the location of our first air show since the tragedy that happened on Sept. 11, 2001.

It was my job to prepare one of the Thunderbird aircraft for this show. As I walked out to the line with my assistant, he told me that everything we needed to launch was already out by the aircraft. I proceeded with the normal pre-flight checks, which included jumping the intake, setting up the cockpit, and performing a walk-around inspection. After the exceptional release was performed and the aircraft forms were signed, my aircraft was released for flight. My assistant closed the panel where we put the forms for deployments, and we proceeded to return the speed handle to the toolbox. With the aircraft ready, my assistant and I walked into the hangar to do a few things until it was time for the morning foreign object damage walk and for the crew to show.

While we were in the hangar, there was still plenty of action on the flightline, especially on the Thunderbird in the spot next to ours. The crew chiefs on that jet were servicing a main shock strut with a nitrogen cart that was not building pressure. They asked for

assistance from two of our electricians who had previous back shop experience with nitrogen carts. Since the crew servicing the strut was using the same tools that one of the electricians asked for, someone took the needed tools out of the toolbox we had left by our aircraft spot. Once the strut was fixed, the exceptional release was done and their forms were secured. The crew chief then did an inventory on their toolbox and noticed three tools were missing. They located the tools and completed the inventory on their toolbox.

All of the jets now had their exceptional releases signed, everything was crew ready, and the pilots came out to their assigned aircraft. All the jets taxied out to the end of the runway without a glitch. As the assistants were down at the end of the runway performing their final inspections, I was cleaning our spot up and getting ready to turn in our toolbox when my wonderful morning turned into a nightmare.

One of our Quality Assurance (QA) people came up and asked, "Are you missing a 6-inch screwdriver?" I replied, "Of course not. We never used a screwdriver, only a speed handle set-up." We checked the toolbox anyway and



Did I Leave a Tool



sure enough there was a hole in the foam where a screwdriver should be!

Terror surged through my body as thoughts of recalling seven aircraft crossed my mind along with a thousand other things! Is the tool on or in one of our aircraft? My mind began to race through all the horrifying possibilities, but was abruptly interrupted by the QA person, “The screwdriver was down at the structural maintenance shop. They found it on the flightline road and are bringing it back.”

A blanket of relief gently tingled over me, but now I was dumbfounded! “How did my screwdriver end up down there? Why wasn’t it in my toolbox? Had the screwdriver stayed behind when my toolbox had been signed out of support?” Every conceivable question bombarded my mind. I soon found out some of the answers.

That day of anticipation had caused multiple lapses in Maintenance 101 practices. First, my assistant and I did not do a tool inventory after the speed handle was replaced or prior to my jet being launched. Second, neither my assistant nor I locked our toolbox when we were finished, leaving it unsecured on the flightline.

Third, the individuals that borrowed the tools to fix the nitrogen cart did not do an inventory of our toolbox after using it. The investigation revealed that the screwdriver had been left on the nitrogen cart. When the cart was towed to the electrics back shop for repair, the screwdriver fell off the cart and onto the flightline road.

Tool control is paramount in our everyday life as aircraft mechanics. There is no room for complacency when it comes to aircraft maintenance and the lives of others. There should be no reason a tool inventory is not completed when you sign the toolbox out from support, before you start a job, after you have finished a job, and — most importantly — prior to launching an aircraft! The toolbox is the responsibility of the person who signed it out. This may seem easy and simple, but how many times have you taken it for granted that all your tools are accounted for? Failing to do the proper inspections can lead to disastrous results. The results would have been devastating if that screwdriver had lodged in the landing gear or in the engine bay of one of our aircraft. We could have lost an aircraft, a pilot, or both! It only takes a few moments to account for your tools, but it will cost you a lifetime remembering the tragic consequences if you don’t. ▶

Editors Note: We would like to thank TSgt. Richard for sharing this story. It is from both our successes and mistakes that we learn to prevent mishaps. His story is one we can all learn from. Be Safe!

...in the Jet?

By TSgt. Joseph M. Richard, Nellis AFB, Nev.

Fleagle



WELL, HERE I AM FLYING TH' HILLS AND DESERTS OF AFGHANISTAN.



THERE SURE AIN'T MANY LANDMARKS TO CHECK YOUR POSITION IN THIS PART OF THE WORLD.

I GUESS THAT'S WHY ALL TH' YOUNG JOCKS DEPEND ON GPS (GLOBAL POSITION SYSTEMS).



BUT NOT US GUYS WITH ALL TH' YEARS OF EXPERIENCE.



GIVE US TH' SKY, A CLOUD, A ROCK OR TREE AND WE CAN FIND OUR WAY ANYWHERE.

SURE IS SOME BRIGHT LIGHTS FOR A COUNTRY AT WAR?



Aircraft Notes

As of 31 Jan, FY02 has not been a good year for flight safety in ACC. We have already experienced four rate-producing flight Class A mishaps (compared to six in all of FY01), plus several “non-rate producers” such as UAVs and drones. Many of these mishaps have fallen outside the “norm” for the airframes involved (e.g., few would have forecast a midair collision in the A-10 community). Still, human factors and life support issues continue to plague us, so we continue to stress the basics: assertive risk management in the presence of uncommonly diverse deployments and operational considerations, adherence to technical orders and checklist procedures, attention to detail in all phases of flight, and strapping into your aircraft properly to ensure the best chance of maintaining control in an unexpected flight regime and/or the best odds for a successful ejection. Fly Smart! Fly Safe!

Weapons Notes

Overall throughout the command, mishaps are down, however mishap report format errors are up. Highlights include: improper number sequencing; incomplete findings and causes; incorrect classification and categori-

Aircraft

As of February 1, 2002

8 AF	
9 AF	
12 AF	
AWFC	
ANG (ACC-gained)	
AFRC (ACC-gained)	
Aircrew Fatalities	

Ground

As of January 25, 2002

FY02	Class A Fatality	Class A Injury or Equip.	Class B	Class C
8 AF		0	1	42
9 AF		0	1	31
12 AF		0	0	58
DRU		0	0	6

Weapons

As of February 1, 2002

	Class A	Class B	Class C	Fatalities
8 AF	0	0	0	0
9 AF	0	0	0	0
12 AF	0	0	0	0
AWFC	0	1	1	0
ACC Totals	0	1	1	0

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



Weapons Notes (cont.)

zation; etc. We understand not all WSMs are fully trained on mishap investigating and reporting, so we are more than happy to assist in any way we can. A properly completed and comprehensive report improves mishap prevention. It clearly gets the word out and allows the AFSC to properly file the report for later trending.

Ground Notes

CLASS A MISHAPS

There have been two more Class A mishaps this year than for the same time period last year — a 29 percent increase.

CLASS B & C MISHAPS

There has been a 100 percent increase of Class B mishaps over FY01. Conversely, there has been a 19 percent decrease in Class C mishaps.

Congratulations to TSgt. Janon Beatty, Ground Safety Instructor for being named Instructor of the Year for the 436th Training Squadron.



Photo by TSgt. Cedric H. Rudisill

Lock of Safety



E-3D Sentry Air Surveillance Technicians from the 405th Air Expeditionary Wing, discuss data links while on a 14.5-hour mission over Afghanistan during Operation ENDURING FREEDOM.

The Combat
EDGE