## The Combat ( EDG

February 2000

#### Air Combat Command's Mishap Prevention Magazine

GENERAL RALPH E. EBERHART, COMMANDER

COL. GREGORY A. ALSTON, CHIEF OF SAFETY COL. MICHAEL B. PERINI, DIRECTOR OF PUBLIC AFFAIRS

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**RON SMITH** EXECUTIVE DIRECTOR

1st Lt. Erin Bradley Editor

BARBARA TAYLOR AWARDS ADMINISTRATOR

STAFF SGT. DAVE WHITE DESIGN & LAYOUT

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Editor, *The Combat Edge* HQ ACC/SEP 175 Sweeney Blvd Langley AFB VA 23665-2700

Telephone: (757) 764-8842 DSN 574-8842 FAX: (757) 764-8975 e-mail: erin.bradley@langley.af.mil

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#### FOCUS ON FEBRUARY

The holidays are behind us, another football season has come to an end and winter is in full swing. I don't know about you, but I'm suffering from post holiday doldrums, still coming down from all the hype and excitement from Thanksgiving through the turn of the century. I'm also on an emotional low because my favorite football team failed to win the Super Bowl (they didn't even get close). Adding to the misery, the sky is too often gray with threatening winter storms. These are issues we must consider, along with many others, during this time of year issues that can have safety implications.

Considering the above factors, it is easy to see how one can become complacent. Please keep in mind that complacency is one of the leading causes for mishaps. Capt Kevin Quamme from the 41st Electronic Combat Squadron submitted an article for this issue that drives this point home. His article, Comfortable, Not Complacent, recounts a near-mishap while air refueling that made him realize the importance of guarding against complacency. Good tools here to keep in your hip pocket.

The remaining articles are equally as enlightening, quite interesting, and you'll surely want to read them all. We've covered flight discipline, pilot role models and driving safety. There is even an article to guide you in buying a safe vehicle for your teenager.

As I previously pointed out, winter is in full swing. It's important to choose healthy and fun activities to overcome those post holiday doldrums, but personal risk management must always be in your cross-check. Snow sledding, skiing or just an exhilarating winter walk can lift your spirits and help shake off the cobwebs. But regardless of which activity you choose, you can prevent a serious mishap or tragedy just by mixing in a wise amount of ORM.

Please read, heed, and feel the need to prevent mishaps.

Col. Greg "Vader" Alston ACC Chief of Safety By Lt. Col. Cesar "Rico" Rodriguez ACC Flight Safety Langley AFB, Va.

What gives the Unified Commander-In-Chief (CINC) his most responsive military instrument of power, capable of achieving tactical, operational or strategic-level objectives with little more than a moment's notice? What aspect of modern warfare has experienced the most technological advancements since World War II? The answer to both of these questions is AIRPOWER. But without discipline, exercised to its fullest extent throughout development, employment, sustainment, and re-deployment, the CINC's options simply amount to jet noise.

Let's try to understand this at a different level. Have you ever wondered what it would be like to have all the high-tech equipment on the flight line, the publications to fix and fly jets, and the support equipment to conduct the day-to-day flight line activities, yet no one exercising discipline in the accomplishment of the mission? Better yet, what answer would the Chief of Staff of the Air Force (CSAF) give to the Congressional Armed Services Committee when questioned about an Air Force accident rate that is equivalent to the loss of an entire mission-ready fighter squadron every 12 months? In most of these cases we can trace our failure or success to the very bond that separates our service from those who operate at the ground level - it's called flight discipline.

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In 1759, General George Washington wrote in a letter of introduction to the captains of the Virginia Regiment, "Discipline is the soul of the army. It makes small numbers formidable, procures success to the weak, and esteem to all." I am sure that General Washington, had he the opportunity to fly fighters, would have added "flight" to discipline and changed army to Air Force. The intent of his message, however, would remain the same. General Washington's letter on discipline to the Virginia Regiment, with or without modern day references, represents the essence of AIR SUPREMACY. Without flight discipline all we do when we fix, fly and support our jets is generate noise, and in some cases lots of it.

> Allow me to share several examples of what I would define as flight discipline. These examples are part of my personal 18 years of experience, in both combat and peacetime flight operations. On Jan. 19, 1991, about 20 miles southwest of Baghdad, the Airborne

R Warning and Control System (AWACS) called out "bogies" to my flight. After several defensive reactions and swift radar work by my wingman and I, we found our flight enveloped within an Iraqi formation of two MiG-29 aircraft to the west, and the entire integrated surface-to-air missile system of Baghdad to the east. Although our training had prepared both my wingman and myself to shoot our way through the flight of MiG-29's, avoiding a fratricide was first and foremost in our thoughts. It just so happened that our on-board systems told us that "friendly" aircraft could be in the area, and we opted for a risky visual identification of the unknown contact eight miles in front of us. It was flight discipline in the midst of an agonizing, life-threatening situation that held our shots until positive identification could be made. It was flight discipline that prevented our shots beyond visual range,

and put us both directly in harm's way. It was flight discipline that allowed our twoship to be formidable and victorious. It was flight discipline that scored two MiG kills.

A unique aspect of flight discipline is that this attitude is not only a pilot thing. The personal dedication, to be the best at what one does, is intuitively obvious when one experiences the orchestrated performance, firsthand, of the men and women whose labor results in a jet being fully mission capable. In our recent deployments to Cervia, Italy, in support of NATO air operations, as well as the day-to-day peacetime standards, the 493rd maintainers embodied the vision that "second best is rubbish." When the production super provided a lineup to fly, it flew. When the jets returned from a successful combat mission, and fuel tanks and missiles needed to be loaded up. the crew chief and weapons troops had the jet ready for combat in minimum time. This sense of flight discipline has no boundary; it lives within each troop's selfless dedication to the mission — airpower, air superiority and air dominance, done right the first time, on-time, every time.

A different aspect of flight discipline involves the working details of what every flight lead and wingman expect from each other. Each pilot earns his position in the flight by his performance during upgrade training, knowledge of the tactics, manual materials, and his ability to lead in the air. Not every pilot is the "golden hands" of the squadron. Each has earned his position in the flight. Or, in other words, rank and the position you fly are not always linear. As a matter of fact, the overwhelming number of missions flown in combat are led by captains. In this unique environment, if you are a qualified lieutenant or captain, then you are charged to lead the flight no matter who is on your wing. It is the wingman's job to be prepared for the mission, attend the briefing and debriefing, execute the tasks as assigned by the flight lead, and contribute to the overall mission critique. This kind of flight discipline, rank aside, is what is expected of each fighter pilot who straps on a jet, whether in combat or peacetime operations.

When we fly, we demand flight discipline 100 percent of the time by each flight member. This attitude is the very essence of survival in the air — peacetime tested and combat proven. Could you imagine an environment where those who lead in combat would most likely be our least capable? That would surely spell disaster.

One final aspect of discipline is the rules written in blood. AFI 11-214, commonly known in the fighter squadron flight briefing room as the "rules of engagement" (ROE), is probably read more often and studied more intensely than the good Book of Proverbs. Each of the more than 20 main topics represents a rule that has been incorporated into our day-to-day training missions because it was identified as the cause of either a loss of life or of a critical combat resource. Each lesson is one told in blood, and many by more blood than we care to remember. As such, we discuss each subject applicable to our mission as part of every briefing, in the hope that we don't repeat the errors of those who have gone before us. When any element of the flight attempts to break ranks and/or accomplish an unqualified event, the integrity of the mission, its people, and the equipment are compromised. This is where accidents happen, assets are lost, and people are killed. This situation represents a lack of discipline and should never be tolerated at any level, by anyone.

In conclusion, while the Air Force can trace most failures to a breakdown in "flight discipline," we can also pave the successful employment of America's premier instrument of power through a better understanding of it. Air supremacy cannot be attained without air superiority. Air superiority is impossible without flight discipline. Without flight discipline all the technology on the flight line will be for naught. The mighty roar of afterburners, however awesome it might be, is not the reason we have the world's most powerful Air Force. Next time you scan the skies above and see a four-ship in a tight fingertip formation, I hope you'll have a better understanding of what's holding it together — FLIGHT DISCIPLINE, the most basic element of airpower.



Vorking in ACC Flight Safety has presented me with the opportunity to review not only flight mishap messages, but also an endless stream of ground mishap messages. Causes of ground mishaps vary from unknown, to unbelievable, to somewhat comical, to those that are unpreventable no matter what is done to mitigate risk. Mishaps *normally* occur to folks who fail to perform a proper personal risk assessment prior to accomplishing a potentially dangerous task, but they sometimes occur to folks who do all the right things, and just happen to be in the wrong place at the wrong time.

What I find exasperating and frustrating is the loss of valuable Air Force assets due to death or disabilities incurred as a result of not taking simple risk-reduction steps. My personal pet peeve is when we lose assets for seemingly simple oversights, purposeful or not, where an injury could have been reduced or eliminated had simple precautions been taken. Examples of these are: choosing to drink and drive or to ride in a car driven by someone who has been drinking; riding in a vehicle without a seat belt fastened; operating a motorcycle without a helmet; failing to use any kind of safety support while working several feet above the floor or ground; not utilizing the correct tools for a job; not following checklist procedures or reading directions; and any number of other simple riskreducing procedures that should be utilized. These are instances where the simple riskreducing process of ACT (Assess the environment for risk, Consider options to reduce risk, and Take the appropriate action) has been

By Maj. Mike McDonald, ACC Flight Safety Langley AFB, Va.

ignored when its use could have prevented a mishap from occurring or minimized the resulting injuries.

I feel I can speak to this since I have been in a position where the simple precaution of wearing a seat belt probably saved my life, and at least prevented a permanent disability. A recent ground mishap that resulted in the loss of a valuable member of the Air Force team drove this truth home to me as I read the report. The mishap was identical to an accident I was involved in some years back, from the aspect of speeds involved, circumstances surrounding the accident, and resulting damage to the vehicles involved. The only difference is that I am here to talk about it, while the individual involved in that mishap is not. I would rather forget my accident (I still have the occasional flashback while driving to or from work), but I feel my memories may help those of you who sometimes don't take the short drive to and from work, to the mall, to visit relatives, or anywhere else, seriously enough.

I have always considered myself to be a good driver (just ask my wife). I *always* wear a seat belt, and I insist that everyone riding with me also wear seat belts and that any small children be placed in an approved child seat in the back. While driving, I am constantly performing risk assessments as other drivers dart around me (and vice versa, I suppose) and I *always* utilize

the oft forgotten turn signal (it's true!) when changing lanes or turning, which appears to be contrary to what other drivers must have been taught. I admit to not being perfect, and I have caught myself driving a little too emotionally after being cut off by another driver or having someone ride my bumper. I don't like to think of it as "road rage" when it's me - more like a minor temper tantrum — but it certainly doesn't improve my driving (you can ask my wife about that too - she'll agree wholeheartedly). My point is that I am concentrating on driving when I'm in the driver's seat, ready to react to circumstances, and not performing other tasks such as reading, talking on the phone, changing clothes, playing with Global Positioning System navigation equipment, etc.

The mishap in which I was an involuntary participant (of course) was one that I could not have avoided unless I had stayed in bed that day. I had just helped my wife with my 6-month-old son as he received his first set of shots at an offbase clinic (he was not a willing volunteer, I can tell you) and was on my way back to the squadron around 9:45 a.m. My wife was about a half mile ahead of me with my son, and I was doing the speed limit of 50 mph in good conditions. Approaching a dangerous intersection where there had been several accidents per year, I was very aware of what other vehicles were doing, or so I thought. There were often problems with vehicles merging into traffic on the right side, so I focused the attention of my peripheral vision on that area, even though I had a green light and the right of way (the definition of right of way may be different in some drivers' minds, but it should mean clear, but cautious, sailing when you have it).

I noted a couple of oncoming vehicles attempting to make left turns across my lane. One of them, a van, turned in front of me close enough to draw my attention and warrant my releasing some pressure on the accelerator, but turned out to not be a factor so I continued towards the intersection. An older model Pontiac Firebird behind him appeared to be yielding, so I concerned myself with the traffic to the right once again. Much to my chagrin, "Mr. Pontiac" determined that since the van had crossed safely, he could do so also (yes, he actually stated this to a police officer later on) and he proceeded to turn directly in front of my sparkling, bright red Mitsubishi (at least it used to be).

They say when you are involved in an accident things appear to move in slow motion, and I can validate that. I only had enough time before impact to pull my foot off of the accelerator, but not enough time to get it on the brake before we collided, my front left fender meeting his front right fender at an impact speed of about 60 mph (my 50 mph plus his approximately 10 mph). I had a front seat view of the crumple zone per-



forming to expectations as the hood of my vehicle rose up towards the windshield. Luckily, his vehicle rode up and over my engine, negating some of the impact. Within a split second it was over, with my vehicle spun around to the right about 90 degrees and completely stopped.

Using maximum effort, I was able to shut off the ignition and attempt to ascertain the severity of my injuries, which turned out to be quite extensive. Still, with adrenaline flowing, I totally missed the long lacerations and damage to my knee. Once the police and paramedics arrived, they pointed it out to me, but by that time I was ready for painkillers for the other injuries, which were more serious than they believed at the time. The neurosurgeon told me later that I was lucky to be walking again due to the injury to my neck, and it still seems a miracle to me that I resumed flying duties 8 months later. I shudder to think that, without that seatbelt, I could have been a paraplegic or dead, leaving my wife a

widow and my son fatherless.

I still believe myself to be a good driver, yet I was completely powerless in this incident. Nothing could have been done to prevent it (besides the other driver being a bit more cognizant), but being aware of that point can help us become more alert on the road, or anywhere else. We need to plan on the other guy making a mistake (worst case scenario) while we do all we can to not be "Mr. Pontiac." We have to expect the unexpected and maintain our situational awareness at all times. There have been times when I have seen folks approaching an intersection and intuition told me to keep an eye on them. Sure enough, when they made a poor decision, my anticipation of their move prevented anything more than slightly higher blood pressure from occurring. Defensive driving is just one aspect of risk mitigation.

Let me tell you straight out what I hope you retain from this article: risk management is vital to accomplishing any task safely - from mowing the lawn to flying jets, from lifting items to driving down the road. It's not cosmic, it's not some complicated mathematical equation that must be computed, and it's not for operational use only. We all informally perform risk management to some extent for most everyday tasks, but sometimes we ignore common sense. Why take a chance and not wear a seat belt or not strap your child into a child seat when preparing for a drive? The potential consequences of those decisions can lead to serious injury or death! I've seen too many fatality reports where simple safety devices would have resulted in minor or no injuries at all, but an irreplaceable AF member was lost because they didn't take the proper safety precautions.

Think about what it would be like if your loved one, friend, or coworker was no longer around, or they had to continue life disabled only because you failed to ensure simple precautions were taken. Yes, it's true that the chance of you being personally involved in a serious accident is low (despite the large number of people seriously injured or killed performing day-to-day activities each year), but it would be nice to come out okay even if you do happen to be in the wrong place at the wrong time, wouldn't it? Take the extra care to prepare for a task properly by strapping in, strapping your kids in, putting on personal protective equipment, getting someone to help or spot, ensuring that you are approaching the task in a safe and appropriate manner, and, most importantly, by assessing the potential risks and outcomes of not doing it properly. Looking out for yourself and, in a supervisory or buddy role, looking out for others can save a lot of emotional and physical pain. The worse case scenario nearly happened to me... IT CAN HAPPEN TO YOU!

## So, You Want to be a Cowboy?

n any fighter squadron, the lieutenants provide the energy (and often the entertainment) and the iron captains provide the backbone - but it is always the instructors who have the highest impact on the effectiveness of the unit. Every fighter pilot wants to be the best at what he or she does, but there are a few who excel to the point where they are commonly recognized as among the best, as both a pilot and an instructor. This is one guy's impression of what makes a great instructor.

By Maj. Jack "Slap" Patterson Pacific Air Forces Standards and Evaluations Hickam AFB, Hawaii

In a different life and different airframe, I remember the day that a fat, old, unknown major walked into my squadron bar and, without introducing himself, proceeded to start removing some of the wood in one corner. He replaced it with some wood of his own, and then, without a word, he left. Gummi had arrived. I went over and

perused what he had hung, and it was a plaque announcing that this was hereby "Gummi's Corner."

Attached was a list of permissible and nonpermissible activities authorized in "his" corner. In short, we could come to Gummi and others in attendance and talk about flight, tactics, techniques, leadership, women, and systems. We could not talk about rank, PME, CBPO (MPF for the younger in the crowd), and other selected non-approved topics. All this for the low cost of a bottomless glass for the teacher.

Appalled by the gall of the newcomer, I walked away in disbelief. I soon learned, however, that Gummi's corner was the fountain of knowledge, and I drank there often and deep. Like going to a golf pro, I went to Gummi for everything from how to drop a 10 degree LAHD to how to attack a grind. For every question asked. Gummi could provide at least a handful of different techniques to fix the problem and the advantages and disadvantages of each. Invariably, one technique would light the proverbial light bulb, and I could go out on the next sortie better equipped to handle the problem. It was one of my first exposures to that rare breed known as the great instructor pilot.

Others would follow Gummi - John Boy, Cowboy, Bull, Blink, Calvin. They are rare, but they're still out there. What sets them apart from the rest? It's not rank or whether or not they're patch-wearers. Gummi was a passedover major when I met him, John Boy was a squadron commander, and Cowboy was a fullbird colonel. Some had a patch, others didn't. And talents varied with each person. John Boy could draw a three dimensional picture on the white board that could make you feel as if you were in the cockpit. Bull couldn't paint by numbers, but he could paint a verbal picture that made even the toughest concepts clear. There was nothing common to them all, except that each "could do" and each "could teach."

The "can do" portion of instructing is its foundation, and it has to be solid to be effective. Without the credibility to back up what you're teaching an upgrading pilot, you will probably never reach him. An old Phantom instructor pilot (IP), Yosh, taught me this quickly and effectively with one short comment during my first IPUG program. After spouting 20 minutes of my best bomb-dropping techniques on him during a BSA debrief, he cut straight to the chase. He said, "Don't give me any of your B.S. techniques when I've got 12 counters up there and you've only got 10, 'cause I'm not listening." Ouch! You don't have to be perfect, but if you expect guys to listen, you have to be pretty darned close.

While the "can do" portion is the foundation of pilot instruction, it is the "can teach" ability that sets the great ones apart. Everyone knows great aviators who are not good instructors because their attitudes, personalities, or other obstacles hold them back. In the partial (and totally subjective) aforementioned list, the common thread was a desire to teach. Each was eager to take the markers and teach — not to impress you with how much they knew, but to genuinely pass along what they had learned. There is a difference, and most pilots can distinguish between the two. The good instructors take the time to answer all questions, explain the reasons why, and the advantages and disadvantages of each technique. Any flight lead can say "do it this way," but the true instructor takes the time to answer all the questions of why we're going to do it that way. I never saw Blink not have time to explain a flying question, and those aviators that want to learn respond to that attitude. It may take a liberal interpretation of crew rest (if my boots are off and there's a beer in my hand, I must be in crew rest, regardless of my location), but the intent is to teach and to improve the capability of every member of the unit. That may be why those instructors were perpetually overworked.

So you want to be a Cowboy? A Gummi? A Blink? It is a two-part process. First, learn to execute as best as you can — every day, every sortie. Second, learn to pass along the lessons you've learned to the next guy. Those two steps are easily written and may seem obvious, but only a few break into the ranks of the great ones. It requires almost continuous, sustained effort. Maybe that's why there are so few Cowboys around.

## Monthly Awards



#### PILOT SAFETY AWARD OF DISTINCTION

Capt. Brad A. Seger 34th Fighter Squadron, 388th Fighter Wing Hill AFB, Utah

Capt. Seger displayed extraordinary situational awareness and airmanship handling an emergency during the critical takeoff phase of flight. Capt. Seger was scheduled to fly a LANTIRN (Low-Altitude Navigation and Targeting Infrared for Night) surface attack mission. His jet was configured with external fuel tanks, bomb suspension racks, training missiles and both LANTIRN pods, for a gross weight in excess of

34,000 pounds. Mission preparation, briefing and pre-takeoff ground operations were uneventful. As Capt. Seger began his takeoff roll, the aircraft accelerated normally in full afterburner and achieved briefed performance parameters. As Capt. Seger began to rotate his jet to the takeoff attitude, he heard a loud bang, followed by severe airframe vibrations. Capt. Seger also observed shards of torn, black material flying up and over the nose and canopy of his jet, and felt multiple thumps in the cockpit floorpan. Suspecting engine foreign object damage (FOD), Capt. Seger selected idle power right as the aircraft became airborne at approximately 180 knots. With the aircraft still accelerating on residual thrust, he settled the jet onto the runway and initiated twopoint aerodynamic braking, and advised his wingman that he was aborting. He immediately applied maximum wheel braking, and lowered the nose to the runway. Capt. Seger lowered the tail hook and continued three-point aerodynamic braking while simultaneously switching to tower frequency and transmitting "cable, cable, cable."

At nose gear touchdown, Capt. Seger experienced increased airframe vibration and the onset of aircraft directional control difficulties. He correctly determined that the nose-gear tire had catastrophically failed, and applied a combination of rudder input and minimal differential braking to keep the aircraft tracking straight while still maximizing his braking effort. Capt. Seger engaged the departure end barrier at less than 100 knots, easily stopping the extremely heavy aircraft. The energy of the abort caused both wheel brakes to heat considerably, and tower informed Capt. Seger that his brakes were on fire. Capt. Seger ground egressed the aircraft without incident. Inspection of the nose gear well revealed significant damage to electrical wiring and components, and FOD damage to the top of the well that was severe enough to dent the engine intake and dislodge paint into the engine. Further inspection of the engine showed that tire debris had indeed been ingested, requiring blending of several fan and compressor blades. Capt. Seger's superb airmanship, timely decisions, and expert handling of a unique problem during a critical phase of flight minimized damage and saved a valuable combat aircraft.



#### CREW CHIEF SAFETY AWARD OF DISTINCTION

Airman 1st Class Chris E. Vernon 78th Fighter Squadron, 20th Fighter Wing Shaw AFB, S.C.

A1C Vernon was assigned as an assistant dedicated crew chief on the mid-shift servicing crew. His normal duties included aircraft inspections and required servicing for the squadron's normal daily flying schedule. At 3 a.m. on Oct. 8, Amn. Vernon had already accomplished a full night of servicing when he had to perform a walk-around inspection (WAI) of an aircraft. During this inspection, he went above and beyond the work cards

by detecting a loose ACES II seat parachute riser bungee cord. The detection of this loose bungee cord was a superb find by Amn. Vernon. This little 6-inch bungee cord is critical in case of a bailout as it helps keep the parachute from tangling when it deploys. Amn. Vernon immediately notified the maintenance production superintendent after discovering the loose cord. His quick response gave the egress technicians enough time to repair the defective cord and return the aircraft to service in time to make its scheduled sortie. His outstanding inspection technique and unparalleled attention to detail averted a possible catastrophe.



#### FLIGHT LINE SAFETY AWARD OF DISTINCTION

Chief Master Sgt. Guillermo Ortiz-Caceres, Master Sgts. Darrel Ford, James Little and Michael Stokking, Tech. Sgts. Robert Barthelemy, Thomas Frazier and Douglas Helm, Staff Sgts. Richard Muntean and Gary Pennrod, and Senior Airmen Timothy Peterson and Jevette Thomas 4th Operations Group, 4th Fighter Wing Seymour Johnson AFB, N.C.

After completing a weapons training load, an MJ-1B "jammer" was parked to the side of an F-15E aircraft in the weapons standardization training facility. As the load crew received a post-load briefing, evaluators Amn. Peterson and Amn. Thomas noticed smoke billowing out of the jammer. They called out to all personnel in the facility to respond to a possible fire. Sgt. Muntean lifted the engine hood and confirmed it was on fire. Chief Ortiz instructed Amn. Thomas to call the maintenance operations center for fire department response while Sgt. Pennrod and Sgt. Stokking prepared the nearest 150-pound halon fire extinguisher. Sgt. Pennrod extinguished the fire after all personnel were clear. Once the fire was extinguished, the jammer brake was released and Chief Ortiz, Sgt. Little, Sgt. Barthelemy, Amn. Peterson, Sgt. Frazier and Sgt. Muntean pushed the lift truck clear of the hangar. Sgts. Ford, Stokking and Pennrod followed closely with the fire extinguisher in the event the fire re-ignited. Sgt. Helm moved another jammer out of the line of danger. The jammer was out of the hangar and the fire extinguished by the time fire department personnel arrived and confirmed the fire was fully extinguished. The rapid response and quick actions to this serious emergency averted possible injury to 15 people and prevented the possible damage and destruction of three F-15E aircraft valued at \$135 million inside the facility.

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#### WEAPONS SAFETY AWARD OF DISTINCTION

Senior Airman Joshua M. Hale, 94th Fighter Squadron, 1st Fighter Wing Langley AFB, Va.

Amn. Hale was performing end-of-runway arming procedures for live missiles on an F-15C. While carefully inspecting each missile and ensuring they were safe for flight, he discovered the aft detent on the station 8 LAU-128 launcher was not correctly engaged. This lack of engagement could allow the live AIM-9M missile to unexpectedly and unintentionally liberate itself during flight. Realizing the time-critical nature of the Operation SOUTHERN WATCH launch window, he quickly directed Airman 1st Class Lopez to retrieve a ratchet from the toolbox so he could attempt to resecure the launcher. After several unsuccessful attempts, Amn. Hale notified the pilot of the missile's unsafe condition and that, as a result, he would have to return to the parking ramp for further troubleshooting. Simultaneously, Amn. Hale coordinated with Tech. Sgt. Palalay, who notified the squadron production superintendent and the maintenance operations center, of the current situation and the need for the aircraft to return to parking. Amn. Hale and his load crew's quick response, attention to detail during all security checks, and strict adherence to technical data prevented the possible loss of a controlled explosive item and damage to the aircraft. Furthermore, due to Amn. Hale's proactive coordination and timely efforts, the pilot was able to employ a spare aircraft in a timely manner, thereby minimizing any potential delays to that day's Operation SOUTHERN WATCH mission.



#### GROUND SAFETY AWARD OF DISTINCTION

Airman 1st Class Kevin Counts, 94th Fighter Squadron, 1st Fighter Wing Langley AFB, Va.

On Aug. 22, while deployed to Prince Sultan Air Base, Saudi Arabia, Amn. Counts, alone and returning from a nearby facility, was waved down by uniformed personnel in need of an emergency medical technician. An airman performing aircraft maintenance, who had inadvertently splashed hydraulic fluid in his right eye, required immediate transfer to and treatment by the medical facility. However, it was at this same time that a real world unidentified package response had commenced in front of the hospital,

denying access to and from the flight surgeon's office and emergency room. Amn. Counts had no access to the hospital, limited and broken radio communications with the flight surgeon on-call (who by now was in a bunker as directed), and a patient who had hydraulic fluid splashed in his right eye complaining of immense pain and vision loss. Seizing the moment and understanding the gravity of this medical emergency, Amn. Counts initiated the appropriate rinsing treatment of the patient's eyes using his water bottles and bottles from people stopped in nearby vehicles as a result of the "bomb" scare. After initiating this treatment, Amn. Counts then had the foresight and confidence to utilize surrounding resources and enlisted the help of an emergency medical technician (EMT) qualified fireman to aid in this crucial and timely treatment. For 50 minutes, Amn. Counts continued this treatment at the entry control point before being allowed to proceed to the emergency room where a physician was waiting to evaluate and treat the patient. After examining the patient and assessing the type of fluid contaminate, it was determined that Amn. Counts directly contributed to the saving of the airman's vision and use of his right eye.



#### UNIT SAFETY AWARD OF DISTINCTION

20th Transportation Squadron 20th Fighter Wing Shaw AFB, S.C.

Due to the aircraft and their mission at Shaw, several trucks arrive during the week with hazardous/explosive cargo. Recognizing that Shaw Air Force Base had a potential hazard with commercial carriers entering the base carrying explosive and hazardous cargo, the 20th Transportation

Squadron took the lead in solving this safety problem. With the main gate closed, commercial carriers were entering the base at the Rhodes Avenue gate (housing) and hospital gate. Once on the base, they were driving in populated areas with these hazardous/explosive shipments. On Sept. 1, a letter signed by the transportation commander was drafted to Wing Safety presenting the problem and a solution to the problem. A guide to aid entry gate personnel in directing trucks with hazardous or explosive cargo was presented to the training operations NCO at Security Forces. This guide included copies of all hazardous placards to look for on inbound trucks. There are three maps attached to the guide. The first map is an overview of the base and surrounding roads, the second map shows the route to take from the North gate to the ammunition area, and the third is a map from the hospital gate to the ammunition area. A guide was posted at every active entry gate and one at the Security Forces desk. In addition to the guide, work orders requesting that signs be erected on Highway 441 directing trucks carrying hazardous and explosive materials to the proper gate were presented to Civil Engineering for approval and coordination with the South Carolina Department of Transportation. Adding these signs to the roads outside Shaw helped ensure all hazardous/explosive cargo is properly routed onto the base and safely to its destination. Using guides posted at gate entry points ensure that Security Police direct commercial drivers with hazardous/explosive cargo to the proper route for the ammunition area. The signs and guides should eliminate hazardous/ explosive carriers from entering the base at unauthorized gates. It should also ensure the safety of the base populace and base housing residents.

# Walking in a

The same snow and ice that creates a winter wonderland can turn familiar territory into a hazardous landscape for pedestrians and motorists. Before you take a step onto that slippery sidewalk, consider these safety tips.

Minter Monderland

\* If the sidewalks and walkways are impassable and you have to walk in the street, walk against traffic and as close to the curb as you can.

\* Proper gear is a must, but wearing dark "winter" colors can make it difficult for motorists to see you. Wear a brightly-colored scarf or hat or reflective gear, espe-cially if you have to walk in the street. Don't forget gloves and footgear with nonslip soles.

\* Snow that has accumulated into drifts can muffle the sounds of approaching motor vehicles Hats and scarves that cover your ears can muffle or even block these sounds. Keep warm, but dress so that you can hear what's going on around you.

\* If you can, shop before the storm Rits. If you must shop, don't buy more than you can easily carry. Remember - the sidewalks and streets are slippery, and carry-ing heavy backages can troper your balance

\* When traveling with babies or small children, make sure they are dressed in brightly-colored or reflective clothing

\* If you have to push a stroller or walk in the street, the child should be in front of you and us close to the curb as possible.

Snow and down for ped

a may keep motorists from stopping-at traffic signals or slowing

strians Before you step off of the curbunto the street, make sure hat any approaching vehicles have come to a complete stop.

\* Bending webr knees a little and taking slower steps can greatly reduce your chances of falling.

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1 Oct 99- 31 Dec 00 Class A Flight Mishaps

8 AF	
9 AF	
12 AF	
AWFC	HH-60
ANG	F-16
AFR	
Aircrew Fatalities	

Class A - Fatality; Permanent Total Disability; Property Damage ≥ \$1,000,000 \* Non-Rate Producing

By Master Sgt. Joy E. Fowlkes, 388th Fighter Wing Safety, Hill AFB, Utah

ey, isn't that Shane's car?" my friend asked.

"Nah," I replied. "Shane has a Mustang. That's a Toyota."

We had just passed a tow truck in the process of pulling a car out of the woods. It was obviously a serious accident, judging from the extent of damage to the car.

My mind couldn't let it go as we cruised to the airport. It WAS the same color. The interior looked the same — at least what I could see beyond the tangled mess that was once the passenger compartment. And wasn't that a Ford emblem on the trunk? "No," I repeated. "That's not it at all."

I tried to convince myself during the whole two-hour trip that things weren't as bad as I imagined.

"Let's stop by the hospital and make sure it wasn't him," my friend recommended.

"No, it couldn't have been him," I replied. "Didn't we just see him last night?"

My mind traveled back to the previous evening — a good-bye party held for a friend, at MY apartment. There was much laughing, partying and, yes, lots of drinking. But we had thought of everything. After all, I was a responsible staff sergeant, and I didn't want to

lose the rank that I had worked so hard to attain. Shane was going to the club afterwards and he had a designated driver. Things were looking good. I remember saying goodbye from the balcony of my apartment, tossing out good-natured put-downs and a half bottle of Sambuca, because I knew he liked it so much. I remember him stumbling away, the worse for drink, hands in his pockets, laughing and shaking his head. I remember him opening the door to his apartment,

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them inside my head.

three doors down from mine, and telling me he would be okay — that his designated driver didn't even drink, so things would be fine. And I remember going back in and resuming my evening, confident that things were fine. Of course, things weren't.

My friend and I raced over to the Flight picnic the next day, just knowing we'd find him.

"Where's Shane?" I asked.

It was then that I noticed how few people there were — how most people were just standing around, and that

the music wasn't at its usual 200 decibel level.

"He's dead ... and Mike. Killed last night in a car crash." Straight-up. No nice words.

The rest of the day was just a blur of emotion and stunned faces — and the realization that, for a whole day, I had put off what I knew to be true all along. Nothing brought that home to me more than when I told our mutual landlord the sad news. I later went to Shane's apartment. I used the excuse that I needed to return some videos he had lent me, but really all I wanted to do was see the remnants of my friend's life. And I did. The laundry basket half full of clothes. The dirty dishes in the sink. The rumpled bed. His life — reduced to a cold house full of chores left undone. And I went home and cried like a baby because he wouldn't be able to come talk to me about his life anymore.

It's been over 13 years since they died killed in a senseless and heart-sickening car crash on an unlit road thousands of miles from home. Speed and complacency, not alcohol, took the lives of two young men who had everything ahead of them — laughter, families, careers. The moment I learned of

their deaths will live in my mind forever, and I can truly say that not a week goes by that I don't think of them. Thirteen years is a long time to carry such a reminder. The guilt I feel is enormous, and I constantly ask myself, "Could I have done more? Was I responsible enough? Was I as good a friend as I could have been? Did I think of everything?" It all comes down to what-ifs and should'ves. That's not how I want to remember my friends, but it's what keeps them inside my head.

Mine is a typical story of many who have lost someone they cared

about. I'm not sure if there's a moral to it. It doesn't seem very moral to lose two young people like that. Every year I think the same thing — "Could I have stopped it somehow? When?" I don't know, but I'll always wonder.

For the rest of you, my advice is this don't let the critical moment slip away. Don't blow off the briefing because "they know the spiel." Don't save your breath because "it will all be fine." Don't think you've "thought of everything." After all, 13 years is a long time to remember. So is forever.

February 2000 The Combat Edge 19





**COMMANDER'S AWARD FOR SAFETY** 9th Air Force / USCENTAF Shaw AFB SC



#### SAFETY SUSTAINED SUPERIOR PERFORMANCE AWARD

Capt Daniel E. Hamilton 85 OS, 85 GP Keflavik NAS IC



#### SAFETY OFFICE OF THE YEAR AWARD -CATEGORY I

4 FW Seymour Johnson AFB NC



#### SAFETY OFFICE OF THE YEAR AWARD -CATEGORY II

53 WEG Tyndall AFB FL



#### DISTINGUISHED CHIEF OF SAFETY AWARD



Lt Col Gary C. Webb 4 FW Seymour Johnson AFB NC



DISTINGUISHED PILOT SAFETY AWARD

Capt Michael J. Wang 388 FW Hill AFB UT



#### DISTINGUISHED AIRCREW SAFETY AWARD

Capt Matthew J. Burger, Capt Neil P. Eisen TSgt Alan D. Hotaling, TSgt Bryan E. Winder SSgt Louis V. Distelzweig 56 RQS, 41 RQS, 85 GP Keflavik NAS IC



OUTSTANDING ACHIEVEMENT SAFETY AWARD 27 FW Cannon AFB NM



#### DISTINGUISHED FLIGHT SAFETY OFFICER AWARD Maj Phillip J. Beaudoin

4 FW Seymour Johnson AFB NC

#### DISTINGUISHED FLIGHT SAFETY NCO AWARD



MSgt Michael G. Janca 55 WG Offutt AFB NE



#### DISTINGUISHED CREW CHIEF OF THE YEAR AWARD

SrA Matthew A. Wood 58 FS, 33 FW Eglin AFB FL



#### DISTINGUISHED FLIGHT LINE SAFETY AWARD

SSgt Michael J. Alpaugh 4 FS, 388 FW Hill AFB UT



#### DISTINGUISHED GROUND SAFETY ACHIEVEMENT AWARD

Maj Paul Gardetto, Capt Randy McCalip, MSgt Wayne Cromley TSgt Andrew McLean, SSgt Ron Sankeralli, SSgt Michael Jennings SrA Adam Rosenberg, SrA Jun Gu Shin, A1C Misty McGee A1C Margaret Mande, A1C Oscar Marzette, A1C Charles Jacobs Amn Gregory Litchfield, AB Tracy Kazan 20 ADS, 20 FW Shaw AFB SC



#### EXCEPTIONAL GROUND SAFETY LEADERSHIP AWARD

Mr. Timothy M. Edwards 4 FW Seymour Johnson AFB NC



#### SUPERIOR PERFORMER IN GROUND SAFETY AWARD

TSgt Brook A. Morris 3 CCSS, 3 CCG Tinker AFB OK



#### CMSGT PAUL A. PALOMBO AWARD FOR DISTINGUISHED GROUND SAFETY NEWCOMER

SSgt Caroline Askew 4 FW Seymour Johnson AFB NC



#### ANNUAL UNIT GROUND SAFETY AWARD -CATEGORY I

4 FW Seymour Johnson AFB NC



ANNUAL UNIT GROUND SAFETY AWARD -CATEGORY II 3 CCG Tinker AFB OK



#### ANNUAL TRAFFIC SAFETY AWARD -CATEGORY I

4 FW Seymour Johnson AFB NC



#### ANNUAL TRAFFIC SAFETY AWARD - CATEGORY II

53 WG Tyndall AFB FL



### EXCEPTIONAL WEAPONS SAFETY INDIVIDUAL AWARD

MSgt Roy W. Black 5 BW Minot AFB ND





#### DISTINGUISHED WEAPONS SAFETY ACHIEVEMENT AWARD

TSgt John A. Bontempo, SSgt Travis J. Bolt 355 WG Davis-Monthan AFB AZ



#### OUTSTANDING UNIT WEAPONS SAFETY AWARD - CATEGORY I 9 RW

Beale AFB CA



#### OUTSTANDING UNIT WEAPONS SAFETY AWARD - CATEGORY II

AWFC Nellis AFB NV



# Comfortable, Not C

By Capt. Kevin P. Quamme 41st Electronic Combat Squadron Flight Safety Davis-Monthan AFB, Ariz.

We'd been on the boom for about 3 minutes when the tanker autopilot malfunctioned hardover nose down without warning. All I saw was the nose of the tanker abruptly drop and our windscreen quickly filled with a big gray fuselage.

## omplacent

Arson the HC-130N/P and MC-130P Combat Shadow in the fastpaced world of Air Force Special Operations Command (AFSOC) for 4 years, I knew that my permanent change of station (PCS) to fly the EC-130H Compass Call at Davis-Monthan AFB would be a welcome change of pace. Flying in AFSOC is intense, with plenty of time spent on temporary duty (TDY) flying into and out of strange airfields overseas. Good situational awareness (SA) and thorough mission planning are absolute necessities. Every flight offers a different challenge - low level, close trail forma-

tion, helicopter air refueling, and short field operations - and the extensive low-level flying using night vision goggles (NVGs) requires efficient and effective management of crew, aircraft, and mission.

The Compass Call mission, meanwhile, is much more laid-back for flight crews. Mission planning isn't nearly as intense as I remember for low-level and airdrop missions, and I've been able to pick up a lot more flying time than I ever did in AFSOC. Many of my flights, however, are spent on mission orbit flying maximum endurance airspeed at 20,000 feet while our mission crew keeps themselves occupied in the back. Risk assessments are normally low to marginal, the latter occurring mostly during July, August, and early September, due to the monsoon thunderstorms. "Guarding against complacency" is a common phrase during my pre-mission briefings.

The only "real" excitement for our pilots is aerial refueling (AR) – definitely a challenge with two large airplanes flying that close to one another. Factor-in an aircraft weight that's about 30 percent above that of a slick C-130, a high drag index, and the Arizona desert heat limiting available power, and it's no wonder AR is a real test for newcomers. Over time, however, that wonderful concept called "experience" kicks in and most pilots actually do get comfortable behind the tanker. The key is making sure that being comfortable doesn't erode into complacency.

Well there I was, after a year at Davis-Monthan, finally comfortable behind the tanker. Our mission that day was a 5 hour, day AR sortie with an hour on track behind a KC-135E. I was the squadron's newest instructor pilot (IP), having been fully checked out for just under two months, and this would be my first ride behind a tanker with real students. Luckily, the students were all copilots - one undergoing his first mission qualification training (MQT) sortie, one on a recurrency ride, and one getting ready for his annual qualification checkride - so all they really needed to do was run the checklists and show me they could park the airplane in a steady precontact position 30 to 50 feet behind the tanker. If they were stable, I'd let them move in to contact. If not, we'd work on things in precontact until they smoothed things out or it was time to swap copilots.

The flight started off with a bang – we had to return to base to replace the copilot's failed

attitude directional indicator (ADI), and the tanker crew aborted their primary jet and slid to a spare. We coordinated to slip our Air Refueling Control Time (ARCT) by 20 minutes, and headed off toward the track. The first copilot in the batting order was the MQT student, a former HC-130N/P rescue copilot with 550 hours in the C-130. His being a good stick helped me relax a little as we discussed the dynamics of AR, briefed up the rendezvous, and completed our Rendezvous and Predescent Checklist.

We called the tanker 15 minutes out from the ARCT, and they directed us to proceed downtrack while they expedited the rendezvous with a visual rejoin. The tanker flew overhead, and I started up toward precontact while showing my student some of the visual references on a KC-135. I gave him the airplane about 200 feet behind the tanker, and he immediately moved up and maintained a solid precontact position. After a few minutes, I took the airplane and talked my way through the closure to contact. The boom operator stuck us on his first attempt, and I maintained a stable platform in the middle of the boom envelope as I demonstrated what to look for and how to maintain position.

That's when it happened. We'd been on the boom for about 3 minutes when the tanker autopilot malfunctioned hardover nose down without warning. All I saw was the nose of the tanker abruptly drop and our windscreen quickly filled with a big gray fuselage. I'd never covered anything like this in training nor had I ever imagined it might actually happen while I was on the boom. I was caught in a position I had no way of predicting, with little more than half a second to consider my options. All I could do was hit the disconnect button, pull the power to flight idle, and push the nose over in an attempt to get away.

I heard the boom operator call breakaway and remember seeing the receiver director lights start to flash as we moved away. The picture etched in my mind, however, is the image of the boom operator through his window. In a normal contact position I have to lean forward and tilt my head to look up and see the boomer, but the split-second delay between the tanker nosing over and me reacting put us so far above our normal position that I actually felt like the boomer and I were eye-to-eye with one another. Of course, I could see what was happening, but my airborne maintenance technician (AMT) in the back couldn't see a thing. All he heard was something about a breakaway, a few expletives, the sound of the engines rapidly throttling back, and then he got light in the straps as we nosed over. I can only imagine what was going through his head at the time.

After we landed, the tanker aircraft commander called to let me know their aircraft had been impounded awaiting an autopilot inspection from the Boeing and Honeywell engineers. I knew we'd been lucky to avoid a midair collision, but I realized just how lucky when she told me that as she added power during the breakaway she honestly expected to hear and feel the impact. She also told me the boom operator, who had the best view of the incident, had narrowly missed nailing us with the boom as he pulled it away.

I asked myself a lot of "what if" questions that night. What if I hadn't been as attentive as I was? What if I hadn't been able to react as quickly as I did? What if it had been a continuation training sortie instead of one with students — would I have been as alert? What if we had collided? At best the boom operator would have scratched some paint above our cockpit. Then again, I've read of several fatal tanker-receiver midairs and can only imagine how much damage a collision would have caused.

An old pilot once said that flying is hours of sheer boredom interrupted by moments of stark terror. My little escapade certainly reinforced that adage. All of us have different missions and mission demands depending on the aircraft we fly. Whether it's dropping bombs, flying night low level, AR, or flying an approach to mins in the soup, every one of us develops our own comfort level for what we do. The thing to keep in mind is that there's a difference between comfortable and complacent. Comfortable means that little voice is still there to nag you when something's not quite right and scream at you when everything hits the fan. Complacent means just being plain stupid. Fly safe!! 

## DOES YOUR TEENAGER DRIVE A SAFE CAR?

Courtesy of the Insurance Institute for Highway Safety, Arlington, Virginia www.hwysafety.org

ehicle choice is particularly important for young drivers. If your teenager has just gotten a driver's license, chances are he or she is looking forward to driving to school. It may be hard to imagine handing them keys to your brand new car, but that may be the smartest vehicle to choose.

While getting a driver's license is an exciting rite of passage for teens, it can be enough to make a parent frantic. The Insurance Institute for Highway Safety (IIHS) and the Insurance Information Institute (III) say there's something worried parents can do to protect their teens — choose a safe vehicle.

Teenagers should drive vehicles that reduce their chances of a crash and offer state-of-theart protection in case they do crash. The first years teenagers spend as drivers are very risky. In fact, teen drivers have the highest death rates of any age group. In 1997 alone, more than 5,700 teenagers died in motor vehicle crashes, and many more were left severely and permanently injured by crashes.

Teen drivers not only lack experience, for many of them immature behavior, such as speeding and reckless driving, is common. They may drive cautiously when mom or dad is in the car, but when they're on their own or with other teens, bad driving is often the norm. Keep this in mind when you decide which vehicle your teen will drive and avoid vehicles that encourage reckless driving.

Avoid choosing vehicles with a performance image. Sports cars and other vehicles with performance features, such as turbocharging, are likely to encourage speeding. Choosing a vehicle with a more sedate image reduces the chances your teen will be in a speed-related crash.

Don't let your teen drive an unstable vehicle. Sport utility vehicles, especially the smaller ones, are inherently less stable than cars because of their higher centers of gravity. Abrupt steering maneuvers — the kind that can occur when teens are fooling around or over-correcting a driver error — can cause rollovers in these less stable vehicles. A more stable car would, at worst, skid or spin out.

Even if your teenager drives a car with a sedate image, chances are still high that sooner or later he or she will be in a wreck. This is why it's also important to pick a vehicle that offers good crash protection.

Don't let your teen drive a small vehicle. Small vehicles offer much less protection in crashes than larger ones. However, this doesn't mean you should put your child in the largest vehicle you can find. Many mid- and full-size cars offer more than adequate crash protection. Check out the safety ratings for mid-size and larger cars.

Most of today's cars are better designed for crash protection than cars of 6 to 10 years ago. So avoid older vehicles. For example, a newer mid-size car with airbags would be a better choice than an older, larger car without airbags. Before you make a final choice on the car your teenager will drive, take advantage of the wealth of consumer information available on car safety from the U.S. Department of Transportation, Insurance Institute for Highway Safety, and Insurance Information Institute. Check it out... it just may save your teen's life.

The Insurance Institute for Highway Safety is an independent, nonprofit research and communications organization dedicated to reducing highway crash deaths, injuries, and property damage. The Institute is wholly supported by auto insurance companies.

(c)1999, Insurance Institute for Highway Safety

Teenagers should drive vehicles that reduce their chances ofa crash and offer state-ofthe-art protection in case they do crash.

By Chief Master Sgt. Michael Mlodzik 372d Training Squadron, Detachment 15 Kadena AB, Japan

## Flight Safety with a Maintenance Slant

#### MAINTENANCE CALL

he most important role the maintenance superintendent plays in an organization is to ensure maintenance personnel are properly trained to safely meet the mission requirements. Naturally, there are a lot of people who work for the maintenance superintendent who take care of this aspect, but the overall responsibility still lies with the superintendent. Along with the vast amount of maintenance indicators available to any organization, the superintendent needs to balance and periodically refocus the organization. The best way to accomplish this is through the use of a "maintenance call." This maintenance call concept is designed to enable all the maintainers in a unit to talk about organizational maintenance practices and training issues, as well as to recognize superior performance. You can look at the maintenance

call much like the pep talk a sports coach uses to pump-up the organization for continued success down the road. Now for the pep talk!

We have all heard a few of the buzzwords, like Maintenance 101 (MX 101) and back-tobasics. These really aren't new concepts, but rather new labels for concepts from days past, and they are still the premises for safe aircraft maintenance. The concepts of MX 101 and back-to-basics are easy to master, and each aircraft maintainer needs to be equipped for battle. MX 101 can be summed-up by three important variables that each maintainer, regardless of rank or skill-level, needs to be armed with -- knowledge, technical data and common sense.

The first variable starts the day we were selected to be aircraft maintainers, and it doesn't stop until we are no longer affiliated with the career field. It is called knowledge! Knowledge is not limited to the basic Air Force knowledge, but relates to our jobs and the business of safe aircraft generation operations. It is the foundation of our specialty and is linked to our technical training background, skill level, and, of course, experience. The more knowledge a person has about his/her job, the more valuable the person is in ensuring the organization is postured for success in the long run. Knowledge ensures that each person pulls his/her weight in an organization to ensure successful mission accomplishment. Knowledge, education and training are all interrelated and can be summed up with the old adage, "strength through knowledge."

A person who does not know about the aircraft systems they work on cannot effectively troubleshoot an aircraft system anomaly. With knowledge, a person will become an effective troubleshooter by understanding the operation theory of a particular system. This is not accomplished through experience alone, but through formal training at critical times during a person's career. Once we have knowledge and we understand how a system works, we can then interface with that system. But before we can successfully employ our knowledge we need to consider the next variable, which is the written gospel: always follow the technical data.

I can't place enough emphasis on the importance of following the technical data that accompanies each aircraft system we work on. The tech data was designed to ensure safe aircraft maintenance, equipment reliability, and limit the potential for mishaps. Coupled with knowledge, the technical data makes a technician very valuable to an organization. We all have those "go-to" guys who work for us. The one attribute they all have in common is that they can fix anything. But even more than that, they understand the system, they know the tech data, and they are usually the people we call upon for the most difficult problems. Why do we rely on them? Because they can effectively use the tools (knowledge and technical data) to do their jobs.

These first two variables go hand in hand. It's like a building-block approach where each variable is dependent upon the other to ensure success. The same applies to the last variable — common sense. This variable relies on the person's understanding of their surroundings and thinking about the situation at hand.

Common sense, when we elect to use it, is nothing more than thinking. If we have the knowledge or understand the theory of system operation and we follow the technical data, we shouldn't have a problem with safety. But we do! Common sense is the variable that requires us to think about the situation at hand and our actions to remedy the situation while ensuring we are operating in the safest possible manner. When we don't exercise good common sense, we can hurt others as well as ourselves! It is more than knowing your job; it also entails knowing what other people are doing around you in the same work area. Common sense is directly linked to safety and exists in a more structured form called Operational Risk Management (ORM). Being equipped with the three variables - knowledge, technical data and common sense — we can eliminate safety hazards and work effectively to accomplish the mission.

Hopefully I have given you some information to help balance the back-to-basics and MX 101 concepts. Make sure you arm your people with the knowledge (formal training) to be successful. Second, enforce the adherence and use of technical data, not just to do it, but for the safety and reliability of our high-profile jobs. Finally, enforce and incorporate the ORM principles into daily practices to ensure everyone understands their surroundings, so they don't hurt themselves or anyone else that might be in the same area.

The bottom line is, people are important to safely generate aircraft to meet the mission. Our people need to be armed with knowledge, they need to understand and follow the technical data, and, most importantly, they need to think (apply common sense). When properly applied, these three variables keep airplanes flying and keep people out of jail and out of the hospital! The ball is in your court, so let's set people up for success!

# SIEDDIG

Winter sledding is great fun, but can be hazardous. Some suggestions for safe sledding:

- Make sure your sled is solidly made and has a steering mechanism.
- Sled in familiar territory and don't sled alone.
- Dress in layers and wear gloves. Use a ski mask to prevent windburn.
- Do not overcrowd a sled.
- Sit up with your feet in front of you, rather than sledding head first.
- Pick the right place: avoid steep terrain, rocky hills; streets or driveways; areas with trees, walls, or cars; and poorly lit areas.
- · Never hitch your sled to a moving vehicle.

Sledding can be fun for all ages. Pass these tips on to your family, and... don't forget to set the right example!