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Combat Edge

Air Combat Command's Safety Magazine

Celebrating 60 Years of Service

Combat Edge

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Colonel Billy J. Gilstrap, Director of Safety

photo by TSgt Ben Bloker

Oops! In the the Sept/Oct issue of TCE, SSgt Otero was credited for the photo that was taken by A1C Joanna Kresge.

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ACCent ON SAFETY

Doing the Enemy's Job

Our job in Safety is to preserve combat assets through mishap prevention. We do that by taking safety statistics, putting some analysis behind them, and coming up with fact-based trends that we can target mishap prevention efforts against. Sounds really easy!

ACC had 22 on-/off-duty fatalities in FY07. Trend analysis provides no startling revelations, no Eureka, nothing that allows us the silver bullet solution. As a matter of fact, it's the same trends that we've seen over the years, lessons relearned. Speed kills, if you drink and drive, you are more likely to die and driving fatigued leads to accidents. Twenty-two of our most valuable combat assets were lost this year. In comparison, ACC lost seven of our Airmen in FY07 to enemy action. Holy smokes, we are killing ourselves at three times the rate that the enemy is.

Weapons safety had another year without a Class A incident. We did have a slight increase in the number of weapons incidents (1) for FY07. Analysis again provides no revelations, just another lesson relearned. Guess what, if you don't follow tech data, then bad things happen. We lose a valuable combat asset when you blow your hand off from an inadvertent activation caused from not following the tech data. Another combat asset lost and another quick win for the bad guys.

Flight safety trends are disturbing. ACC and ACC-gained units lost three aviators and eight jets this year, predominantly due to human factors. The majority involved high-time aviators, the pilots that we consider to be our most reliable (IPs, SEFEs, supervisors). The leading causal factor is task mis-prioritization. Remember the first rule of aviation is to FLY THE JET, everything else is secondary. Our experienced pilots may be getting too comfortable; the "I've done this a million times" syndrome. We need to remember the basics. Aviate-Navigate-Communicate. Three irreplaceable pilots and eight jets lost without the enemy breaking a sweat.

Yes, we are a nation at war. Everyone is busy! Everyone is under-manned and under-funded! A lot of things are changing! That does not mean we can ignore the tech data or the regs and cut corners thinking we are getting the mission done. Damage control is more costly to the mission than taking the time to do it right the first time.

Take a few minutes to set your priorities for the mission; don't get lulled into a sense of complacency just because you have flown the same mission six times in the last 2 weeks. Impact with the ground has a lot higher probability of a kill than small arms fire. Take a hard cold look and do some personal risk management every time you sit behind the wheel or start that motorcycle. Taking care of yourself and your Wingman will go a long way in preserving our most important combat asset. Make the enemy work for it; don't do the enemy's job.

COL BILLY J. GILSTRAP
Director of Safety

photo by TSgt Ben Bloker
Let's go hunting... but let's do it safely

Let's Go Hunting . . . But Let's Do it Safely

by Mr. Rod Krause, Minot AFB, N.D.

Whether you've hunted for years or this is your first time, each hunting adventure always brings a "new experience!" It can be good or bad depending on the WHO, WHAT, WHEN, WHERE, and HOW.

WHO you hunt with is important as far as their experience, habits, and general knowledge of wild game and its habitat. Normally, an experienced hunter will ask a potential partner tons of questions to determine whether they want to go hunting with them or not. This is especially important when you consider that around 40 percent of the hunters injured each year are accidentally shot by their hunting partner while another 35 percent figure out ways to shoot themselves! For the sake of your own safety — as well as that of your partner — make sure you take into account both parties' skill levels and knowledge base.

WHAT type of wild game are you planning to hunt? Some of the most common are deer, elk, bear, duck, turkey, quail, pheasant, squirrel, rabbits, grouse, fox, and raccoon — not to mention skunk, boar, woodchuck, coyote, weasel, and porcupine! And guess what? The seasons overlap each other. So, if you're not careful, there's a big window of opportunity out there for you to become some hunter's trophy! Keep in mind, however, that the most serious accidents typically occur during deer season. This is mainly because of the greater shooting distance and destructive power associated with high velocity rifles.

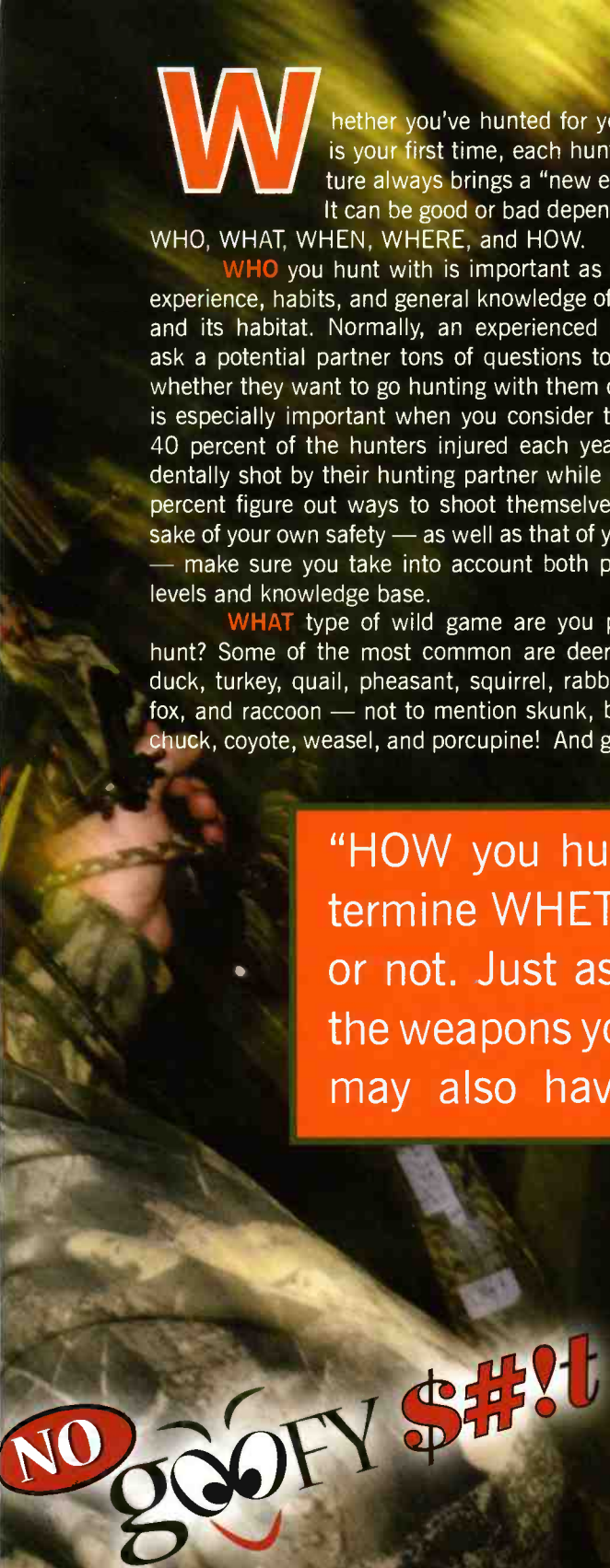
WHEN are you going hunting? You may want to consider scheduling your foray when the level of activity for big game — like deer or bear — is low. Since the total number of hunters is highest when big game season first opens up, scheduling your hunt in the middle or last part of hunting season will reduce your risk of accidentally being shot by another hunter.

WHERE you hunt could be the difference between life and death! It would seem totally ridiculous for hunters to just jump in a 4x4 and drive for hours to hunt in a place they have never been before or haven't visited since last season, but it happens. You need to do some pre-hunt scouting to visually check the areas you plan to hunt. This includes checking to make sure the land is open to hunting; checking for trails, ponds, game, etc.; determining if your cellular phone operates or locating occupied areas where telephones or help may be available; and talking with local officials and residents.

> "HOW you hunt will largely determine WHETHER you succeed or not. Just as seasons overlap, the weapons you use to hunt with may also have some overlap."

HOW you hunt will largely determine whether you succeed or not. Just as seasons overlap, the weapons you use to hunt with may also have some overlap. You can use muzzleloaders, assorted firearms, and the good old bow and arrow (archery), as long as you obey the rules and guidelines set by each state. Each state usually publishes their hunting regulations and includes pamphlets with special game permits that are a "must read" for all hunters. Cellular phones, two-way radios, etc., are very important in keeping hunters in contact and obtaining help in the event of an emergency. A backpack with food, water, first aid kit, flashlight, blankets, tools, etc., always comes in handy. It's not a bad idea to include signaling devices such as mirrors, flares, etc., whether you are in a remote location or not! Most states also ask or require you to wear hunter orange clothing. This helps other hunters to be absolutely positive of their target. Consider what is behind your targeted game to ensure your projectile doesn't glide through buildings, people, or in the direction of a road. One of the oldest safety messages is the control of your firearm's muzzle. Also, ensure that your firearms are properly secured and stored on base. This can be accomplished through the Security Forces Armory.

To summarize, don't forget to communicate your planned courses of action for any potential situations, wear that hunter orange clothing, pick your hunting buddies with care, and "keep your gun barrel pointed in the right direction!"



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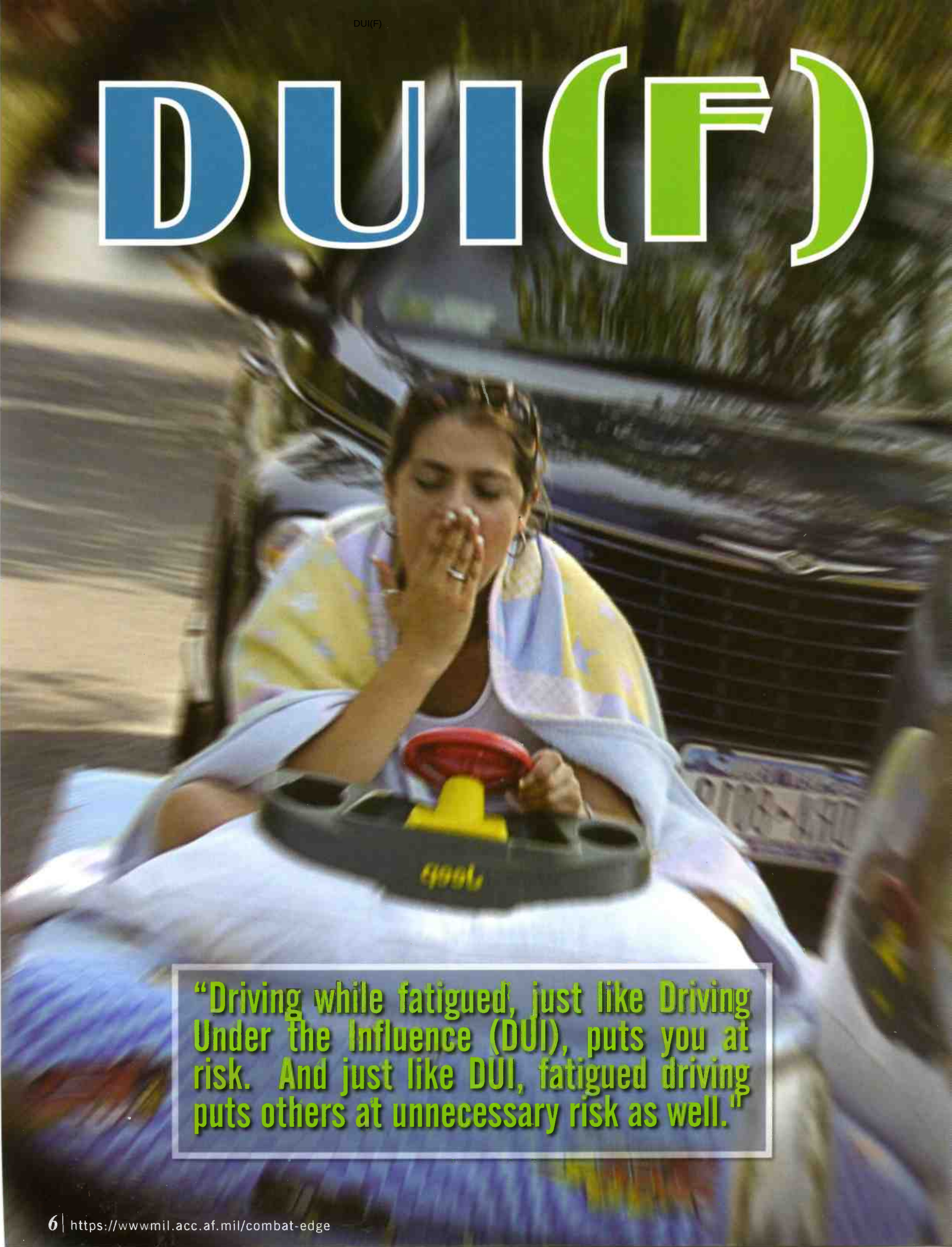


"Driving while fatigued, just like Driving Under the Influence (DUI), puts you at risk. And just like DUI, fatigued driving puts others at unnecessary risk as well."

Driving Under the Influence of FATIGUE

by Capt Troy Faaborg, Whiteman AFB, Mo.

What can you do that is just as dangerous as driving under the influence of alcohol, is just as wrong as DUI, but is completely legal? Driving while fatigued is something that nearly all of us have done – quite regularly in some cases – but perhaps without considering the potential consequences. The National Highway Traffic Safety Administration reports 100,000 crashes occur each year due to drowsy driving.

A study at the University of South Australia reports that when a person has been awake for over 17 hours in a row, their physical and mental performance is similar to those of a person who is at a 0.05 Blood Alcohol Concentration (BAC). The study goes on to show that if you have been awake for 24 hours, your performance is diminished to that equal to a person who is at a 0.1 BAC, well above the legal limit to operate a motor vehicle. Even without ever taking a drink, your performance can be impaired to dangerous levels just because of your sleep status. Driving while fatigued is just as dangerous as driving while intoxicated.

Driving while fatigued, just like DUI, puts you at risk. And just like DUI, fatigued driving puts others at unnecessary risk as well. Recently, in our country, individuals who have been involved in accidents due to drowsy driving have been held responsible for the damages they've caused. Legal precedent has been established, and while completely legal, driving while fatigued is just as wrong as driving under the influence of alcohol.

At no time in the history of our Air Force have we needed to rely more on every member of the team to contribute to the mission. We simply cannot afford lost duty time due to preventable accidents or injuries. While operational demands may breed fatigue, it is a risk that is still manageable by each and every one of us. Consider the following options to manage your fatigue:

- **Get enough sleep**. It may come as no surprise that the most common cause of fatigue is lack of sleep. In order to prevent yourself from getting behind the sleep curve, get enough sleep each night. If you are tired throughout the day, it may be an indicator that you need more sleep each night.
- **Don't take on too much**. Resist the temptation to start that 10-hour drive immediately upon getting off work on Friday afternoon so that you can get an early start to the weekend on Saturday. We have limitations, and not recognizing them can put ourselves and others at risk. Consider your options and make safe decisions when it comes to driving when you might be fatigued.
- **Be careful driving at night**. Driving in the wee hours can be dangerous for a number of reasons, the first of which is that our bodies are designed to be asleep during the night and will make every effort to get there – sometimes at the least opportune times! Try to avoid driving between midnight and 0600. Even if you are not too tired to drive, others on the roads may be!
- **Acknowledge the indicators**. If you become aware that your head is bobbing and you are occasionally nodding off, you need to take corrective action immediately. Experts suggest that if you recognize these microsleep episodes, that many have already occurred without you knowing it and that you are already at great risk while driving.
- **Take action when necessary**. Pull over and sleep in a safe area. Call someone for a ride. Drink some caffeine if it helps, but do not continue to drive if you recognize that you are overtired. You are putting yourself and others at great and unnecessary risk.

Driving while fatigued is just as dangerous and just as wrong as driving while intoxicated. Know what operational countermeasures are available to you and use them to prevent fatigue-related accidents that can impact our mission capability. While fatigue may at times be inevitable, awareness of the problem, knowledge of our options, and a series of good decisions can help to manage this risk and greatly reduce its negative effects on our performance.

photo by SSgt Austin Knox

"An Airman left his base at 1030 on a Friday to drive 1,300 miles to Louisiana. He slept a few hours, spent the day visiting with family and friends, got another 6 hours of shut-eye, and then headed north at 0600. Twenty minutes later, he swerved into the median, where the car spun, flipped and ejected him through the sunroof. The report says he "knew beforehand his trip was questionable."

Fatigue countermeasures

by Capt Troy Faaborg, Whiteman AFB, Mo.

Are you tired as you read this article today? Have you ever found yourself accidentally nodding off during an afternoon meeting? Just about every one of us, at some point in our career, has experienced fatigue. In fact, many people that you work with may be fatigue experts — which is not something to boast about in this case!

Fatigue is defined as *a state of mental or physical deficiency*, and can have a dramatically adverse effect on your performance. Mental fatigue can be brought upon by high levels of stress or high mental workload such as preparing for and taking a big exam. Have you ever ended up tired after a day of hard thinking? While perhaps it may sound strange, this is mental fatigue that will cause your body — and brain — to seek rest. Physical fatigue can be brought upon by hard physical labor, exertion, or sleep disturbance, resulting in a decrease in physical performance. In its simplest form, fatigue can be categorized three ways: *acute & chronic fatigue, and circadian disruption*.

Acute fatigue is defined as fatigue that is caused by short term sleep disruption. For example, if you do not get enough sleep tonight — and tonight only — you will experience acute fatigue tomorrow. If you continuously do not get enough sleep from night to night, you will experience *chronic fatigue*, sometimes referred to as sleep debt. *Circadian disruption* is when your body's natural 24-hour cycle is changed, either by a change in work shifts or traveling to a new time zone. When associated with travel,

"Another Airman had to drive home to help his family clean up after a fire. He left on a Thursday evening to drive 600 miles. He fell asleep at the wheel at 0530 and crashed into a culvert. So instead of helping his folks, he gave them one more thing to worry about while he spent 6 days in a hospital and another month convalescing."

photo by SSgt Austin Knox

this type of fatigue is called jet lag, and it can impair you for periods of several days.

The good news is that you can prevent fatigue, but first, how can you tell that you need to? The signs that you are suffering from *acute* or *chronic fatigue* include drowsiness during normally awake periods (like mid-morning and late afternoon), falling asleep within seconds of hitting the pillow, and difficulty waking up naturally in the morning. If you experience these, you should make more of an effort to get more sleep.

How much sleep a person needs from night to night depends on the individual, but studies suggest that between 6 and 10 hours per night is required each night.

While you can get by for a short time on less sleep, if you make it a habit you will experience sleep debt and an overall decrease in your physical and mental abilities.

If your mental and physical capabilities are limited, can you imagine the number of mistakes you could make while performing duties at work? Even worse, consider how poor your driving will be if you are out on the road for hours after a long day of work! Driving while fatigued can be deadly. The National Highway Traffic Safety Administration reports 100,000 crashes occur each year due to drowsy driving, most of which occur between the hours of 11 p.m. and 2 a.m., when your body is trying to follow its natural 24-hour clock and desires rest.

The consequences of fatigue can be dramatic, but with proper emphasis on getting enough sleep each and every night, the effects can be reduced and your effectiveness — on or off duty — can be maximized.

Finding out about thin ice the hard way!

by SMSgt John Nordquist and MSgt Gordon, Air National Guard, Fargo, N.D.

It was the 14th of December and the weather was finally acting like it should this time of year. So with work being slow, what else could we do but go fishing. SMSgt John Nordquist and I made the plan to meet at the big loon on Long Lake by Vergas, Minnesota, for an evening of ripping lips and talking smart. It was blustery but the little walleyes were cooperating enough to keep things interesting. There was one other person out fishing when we got there but he was about 100 yards away; so these fish were all ours! Shortly after 5:00 John's wife dropped off Cody, John's son. By now it's starting to get pretty dark and hard to see the bobbers and the other guy had had enough. After watching him pack up his portable fish house and head off towards shore, we turned our attention back to trying to see the bobbers.

This is where things got really interesting. Approximately 2 minutes after this other fisherman started for shore, we both heard someone yell for help. John and I looked at each other with questioning expressions on our faces, like what did we just hear? John's first thought was that of kids playing, and mine was "someone caught a big fish and was whooping it up." When we heard the second call for help which came shortly after the first, we realized that something was wrong. We looked in the direction that the other fisherman was heading and saw his lantern on the ice, and we knew that he had probably fallen through the ice. We both dropped what we were doing and started in that direction, John told me to grab my ice picks and Cody to grab my floatation cushion. We realized that in order to approach him safely we would be better to angle towards the shore and come at him from shallower water. When we got to him, he was very cold and he was panicking, so John started to talk to him and got him to calm down. I laid down on my belly and pulled my self out to him. I gave him my ice picks and told him how to use them, but it was apparent that he was too tired to pull himself up. He was very reluctant to let go of the ice. John suggested that I grab his portable fish house and have him hold onto that so we could number one put some distance between us and number two it was easier and more solid for him to be able to grasp. I should mention that everything we asked him to do we needed to re-

peat at least 3 or 4 times for him to comprehend. Once we convinced him to let go of the ice and grab the fish house, I crawled back away. John and I each grabbed on to the tow rope and pulled. He came out so easy that we thought that he had let go. Once out of the water John told him to reach behind him and grab his lantern, which was still burning on the edge of the hole. After dragging him a safe distance from the thin ice, we asked him if he could stand. He couldn't, so John and I each took a side and put an arm over our shoulders and started for shore. He was reluctant to walk at first but then started moving his legs a little (like baby steps) but never really walking.

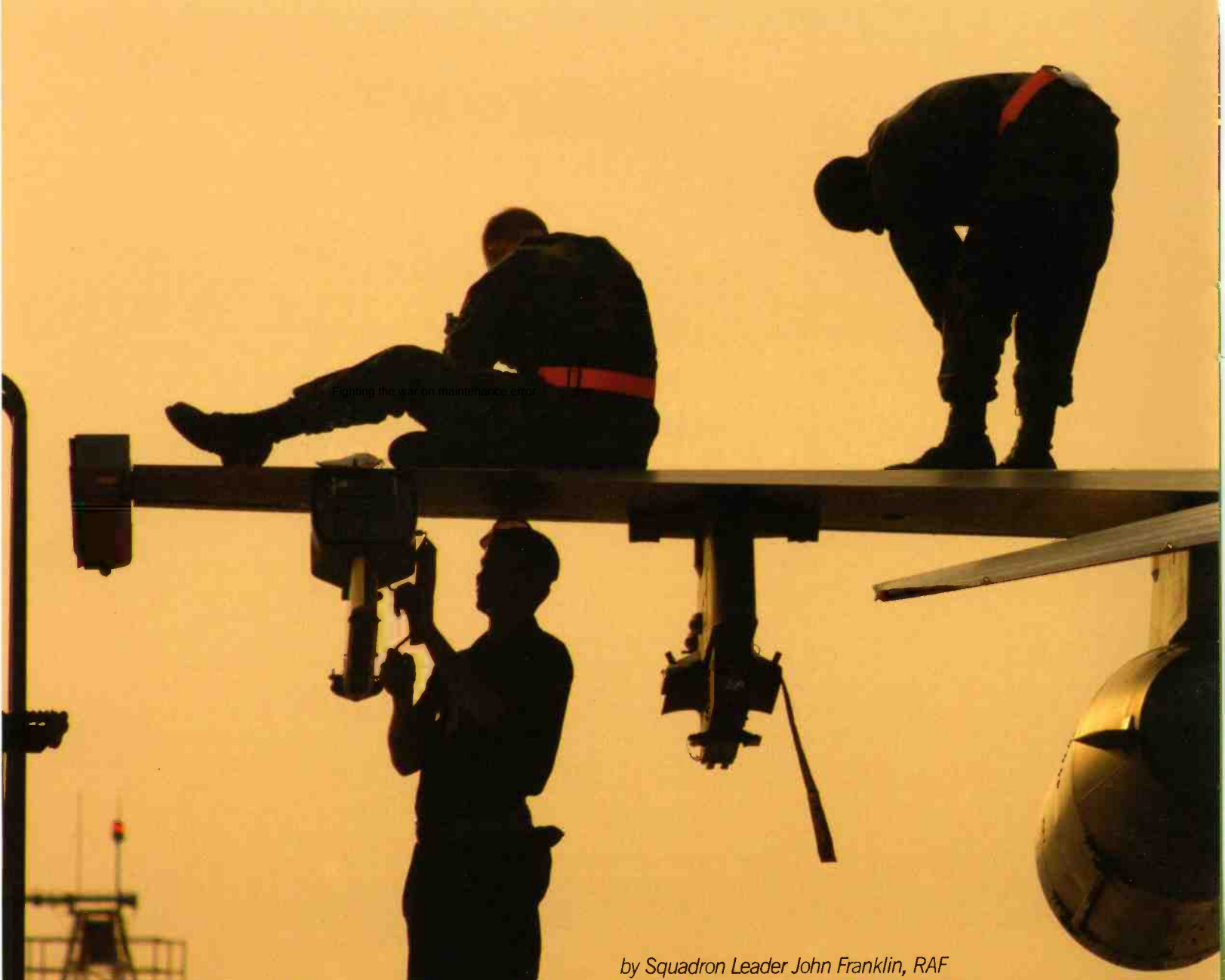
Once we got him to his pickup truck, we got his keys out of his coat pocket and got it started to warm it up. As the truck warmed up, we removed his coat and his cover-alls, we tried to remove his boots but they wouldn't come off. Once we got his wet clothes off of him, we put him in the truck and wrapped him up in a jacket and a blanket that he had in his truck. At this time another pickup came down to where we were and said that his wife had heard someone yell for help, so he put some boots and a different jacket on and came down. As John talked to this gentleman, I sat in the truck with the other fisherman and kept the RPMs up on the engine to get it to warm up quicker and to talk to him to keep him awake. As it turned out, this other guy knew the guy that fell in and asked if he should get his dad. He said yes and that his mom and dad were at Billy's Bar in Vergas.

"We were told later by the father that he was asked to stay home from work for 2 weeks and rechecked by the doctor every 2 days."

Once his dad arrived, we told him what had happened. His dad took him home where his brother, who is on the Vergas Fire and Rescue and is also an EMT, examined him and determined that he needed to go to the emergency room in Detroit Lakes where he was treated and released. We were told later by the father that he was asked to stay home from work for two weeks and rechecked by the doctor every two days. Once his dad had him, we went out and retrieved our fishing gear, which had two more suicidal walleyes on the line.

After the adrenaline rush faded away and we had time to really think about how quickly things happened and how we had gone about rescuing this young man (he is 22 and I'm pretty sure that he will see 23). I don't recall thinking about falling through while I pulled myself toward him or the other dangers involved. I am not usually a big risk taker, but my only thought was to get him out. John says that he felt the same way. In a situation like this it seems that there isn't a whole lot of time to think things through; you have to either react on your training or you improvise. We did both. As ironic as it may seem, that very morning I had watched the training video that our Safety office sent out on Thin Ice Safety. If you think training is a waste of time, I ask you to rethink that. With the information I learned from this video and some common sense, we were able to save a young man's life.

"When we heard the second call for help, which came shortly after the first, we realized that something was wrong."



by Squadron Leader John Franklin, RAF

Fighting The War On

With the current high levels of operational tempo and the rapid changes in the way engineering support is provided, more and more is expected of our aircraft technicians. With constant pressure on maintenance personnel to achieve operational and training imperatives, there is a very real chance that maintenance error will occur and this could lead to catastrophic accidents if not identified and managed.

Here at the Defense Aviation Safety Centre (DASC) we are evolving our Human Factors programs further to better understand maintenance error. With the work in its infancy, it is important that, in the meantime, all personnel involved in aircraft maintenance — and those that task them — appreciate that the first step in fighting the war on maintenance error is to understand what error is; then and only then, will we be able to effectively develop and implement such a system.

What is maintenance error?

Humans make errors on a regular basis. In fact, humans make an error on average every 60 seconds. These errors can be as simple as typing the wrong letter in a word, or as serious as driving through a red light. In an aircraft maintenance context, maintenance error is a discrete form of human error. A maintenance error is the failure of a maintenance system (including people) to perform in the manner expected. It is different from a violation as the latter involves a deliberate departure from established rules and regulations.

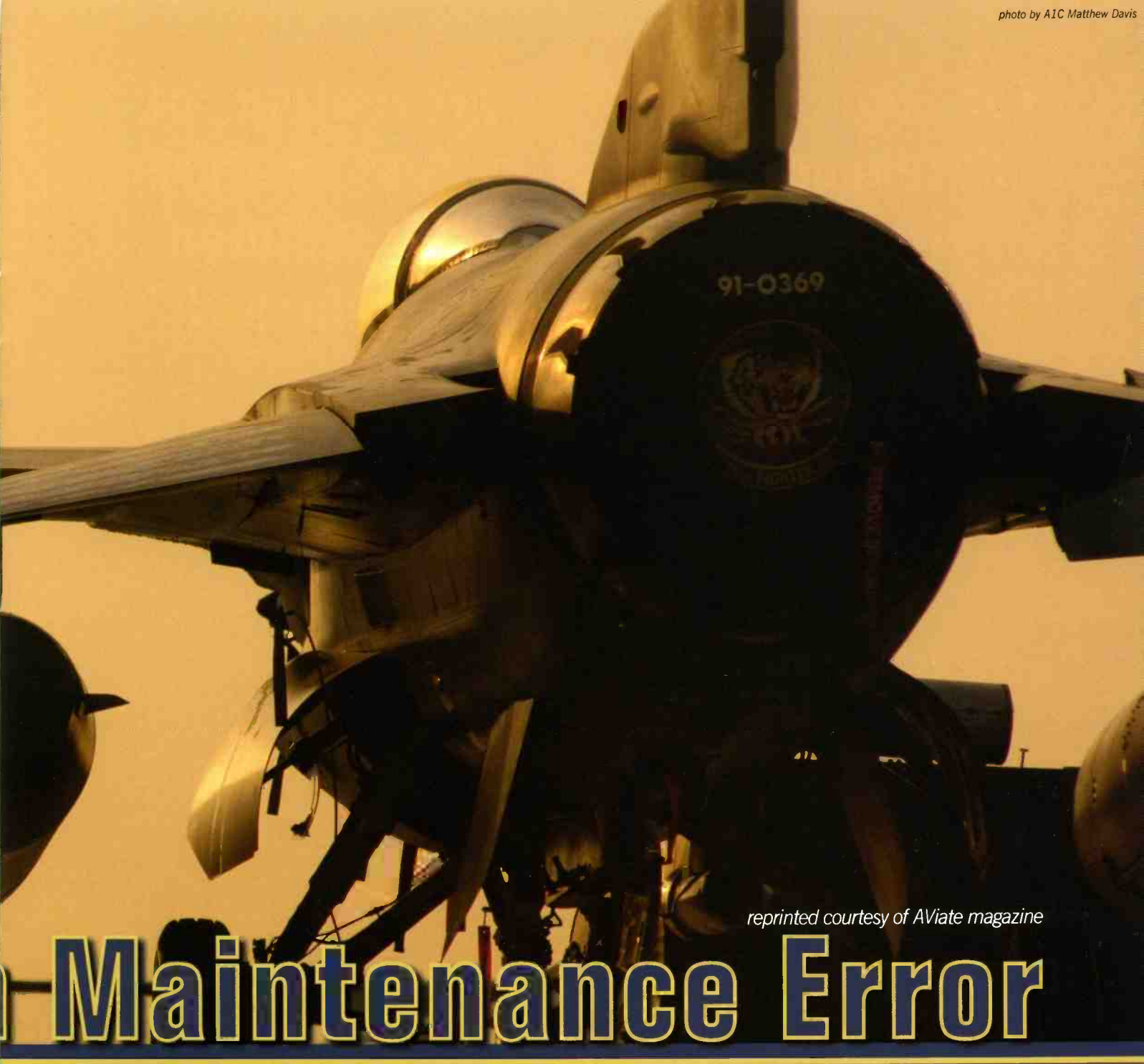


photo by A1C Matthew Davis

reprinted courtesy of AViate magazine

Maintenance Error

Maintenance error management principles

There are a number of measures that can be put in place in a maintenance system in order to catch a maintenance error before it becomes a problem during the flight of an aircraft. However, in order for these measures to be effectively implemented, the following principles of error management must be understood.

Human error is both universal and inevitable

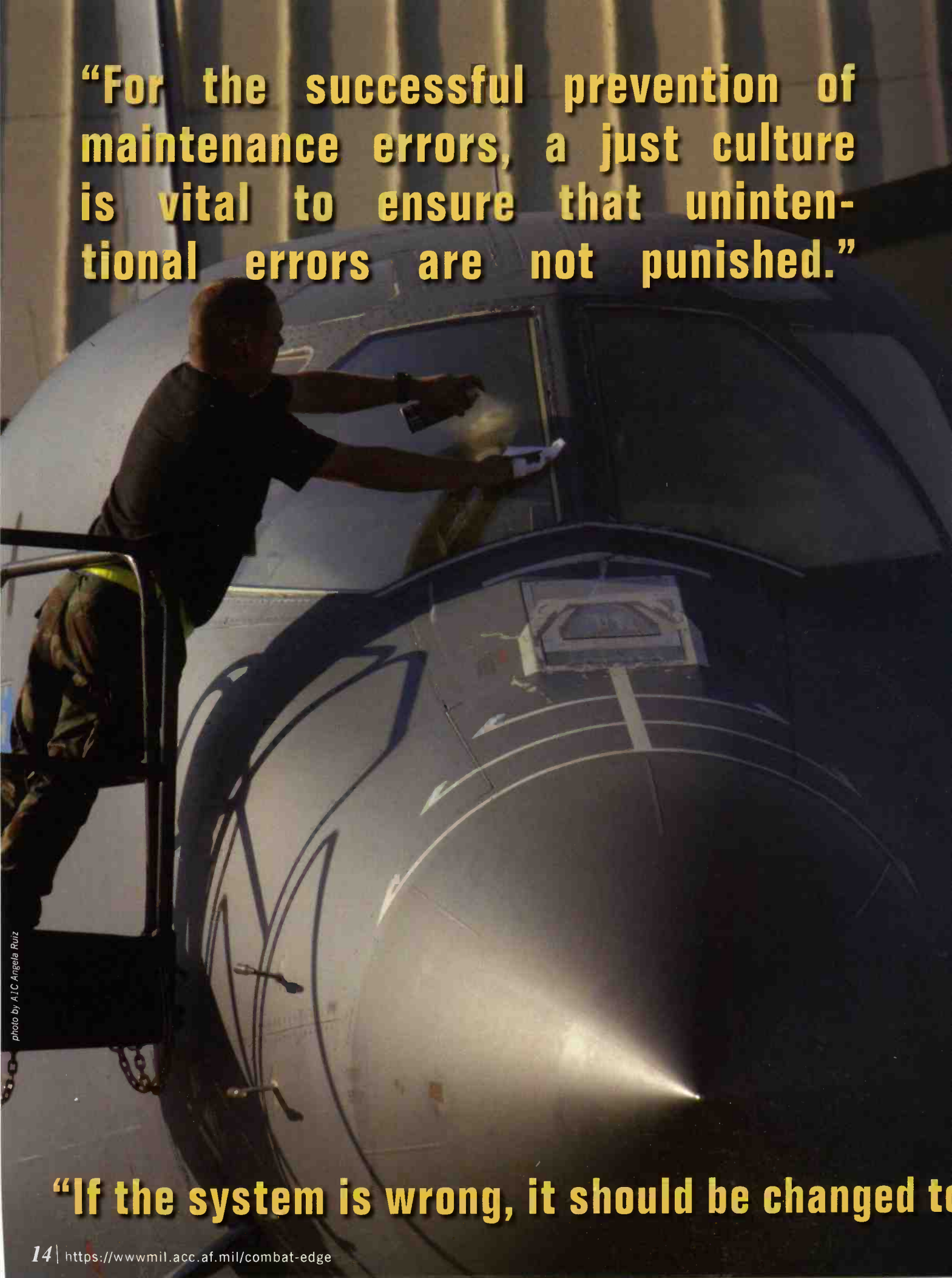
Humans are not machines, so whilst the consequences of human error may be undesirable, it is important to understand that human error is as much a part of life as eating, sleeping and breathing. We are always at risk from human error and although it will never be completely eliminated, we must understand its effects in order to control the risk they pose.

Errors are not intrinsically bad

Error is one of the fundamental drivers of human learning. Without committing errors we would be unlikely to learn or acquire all of the skills required for safe and efficient work.

You cannot change the human condition, but you can change the conditions in which humans work

The problem with most errors is not that they have been committed, but that they have been committed in a safety-critical environment. Therefore, it is important to recognize that we are operating in such an environment, recognize the error traps within the way we do business and base the way we prevent maintenance error around this understanding.


"For the successful prevention of maintenance errors, a just culture is vital to ensure that unintentional errors are not punished."
photo by A1C Angela Ruiz
"If the system is wrong, it should be changed t

The best people can make the worst errors

Errors are not just committed by inept individuals in the workplace. We must understand that all humans are capable of making errors and that even the best technicians are capable of making the worst mistakes. People cannot easily avoid those actions they did not intend to commit. Blame and punishment do not make much sense when the act that was committed was unintentional. This is the cornerstone of a just culture. This is not to say that people who have made an error should not be culpable for their actions; however, punishment and blame will not stop all errors from recurring.

Errors are consequences rather than causes

Investigation techniques in the past have involved finding out who committed the error and then punishing that person as a warning to try and stop others committing the same. However, it is better to see errors as consequences rather than causes, in that every error has a history and a chain of events that has led to the eventual outcome. Determining the factors that contributed to the error, and removing one of these factors from the error chain, is far more beneficial. All occurrences are as a result of a chain of errors. We do have a tendency to focus mainly on the last error in the chain rather than the earlier, organizational ones.

Maintenance error is about managing the manageable

We cannot control the uncontrollable. That is to say that there are certain human characteristics, such as being prone to distraction, forgetfulness and preoccupation, which cannot be eliminated. Situations and people cannot be controlled completely but they can be managed.

Managing maintenance error

There are a number of measures that we currently have in place to prevent maintenance errors occurring. These include training, authorizations, supervision, inspection, quality audits, procedures, publications, rules and regulations. However, despite the many checks and balances in the system, maintenance errors still occur and a significant proportion of incident reports are put down as Human Factors (non-aircrew). Our understanding of these events could be better and we could certainly do more in the way we investigate and learn from maintenance errors.

As a first step, management techniques within any maintenance organization must identify behavior that is inappropriate and undesirable. This includes poorly documented maintenance, failing to use or follow approved maintenance procedures, perceived pressure, and a perception that we work in a blame-free culture where personnel can deliberately commit violations without fear of retribution. These must be replaced with appropriate behavior that ensures maintenance personnel work within recognized risk boundaries using the established maintenance regulatory framework at all times, regardless of the external pressures. This is especially relevant on operations; corners are often cut for operational reasons, but the adverse conditions and increased pressures of this type of environment mean maintenance personnel are far more likely to make errors than in the more benign environment of Military Operating Base.

If the system is wrong, it should be changed to ensure that it is right for others in the future. However, when doing so, we must be aware that what might be perceived to be the right way to do something at the individual or squadron level, might not be considered correct by higher management. To that end, it is vital that changes are staffed appropriately before they are implemented. A consequence of this is that personnel in the command chain must ensure that suggested changes are actioned, one way or the other, as quickly as possible. A local work around can only survive for so long before it results in an incident. At all stages any change process must be clearly understood by all involved in it, regardless of their position in the chain of command.

All maintenance incidents and near misses should be reported and investigated with the aim of identifying and eliminating error-promoting conditions. An example of the kind of error-promoting conditions that regularly pop up during Flight Safety occurrences are summarized by the 'Dirty Dozen.'

When it comes to investigating and reporting technical faults and errors, the focus should not necessarily be on what has been done to the aircraft to return it to a serviceable condition; this is the purpose of the maintenance documents. It is more useful to understand WHY the event occurred and WHAT can be done to prevent it from happening again. In Aviation Safety, there are rarely new errors — just old ones waiting for new people to have them, so the wider lessons must be publicized as widely as possible.

The prevention of maintenance error is a hugely complex issue, mainly because people are at the heart of it. For the successful prevention of maintenance errors, a just culture is vital to ensure that unintentional errors are not punished. Instead, the chain of events leading to the error should be investigated with the aim of determining all the contributing factors, and enabling maintenance managers to develop defenses that will stop that event chain from occurring again. In this way, we can ensure that our skillful technicians are given every assistance to enable them to deliver our flight crews with a safe and airworthy product.

ensure that it is right for others in the future."

MY SNOWMOBILING

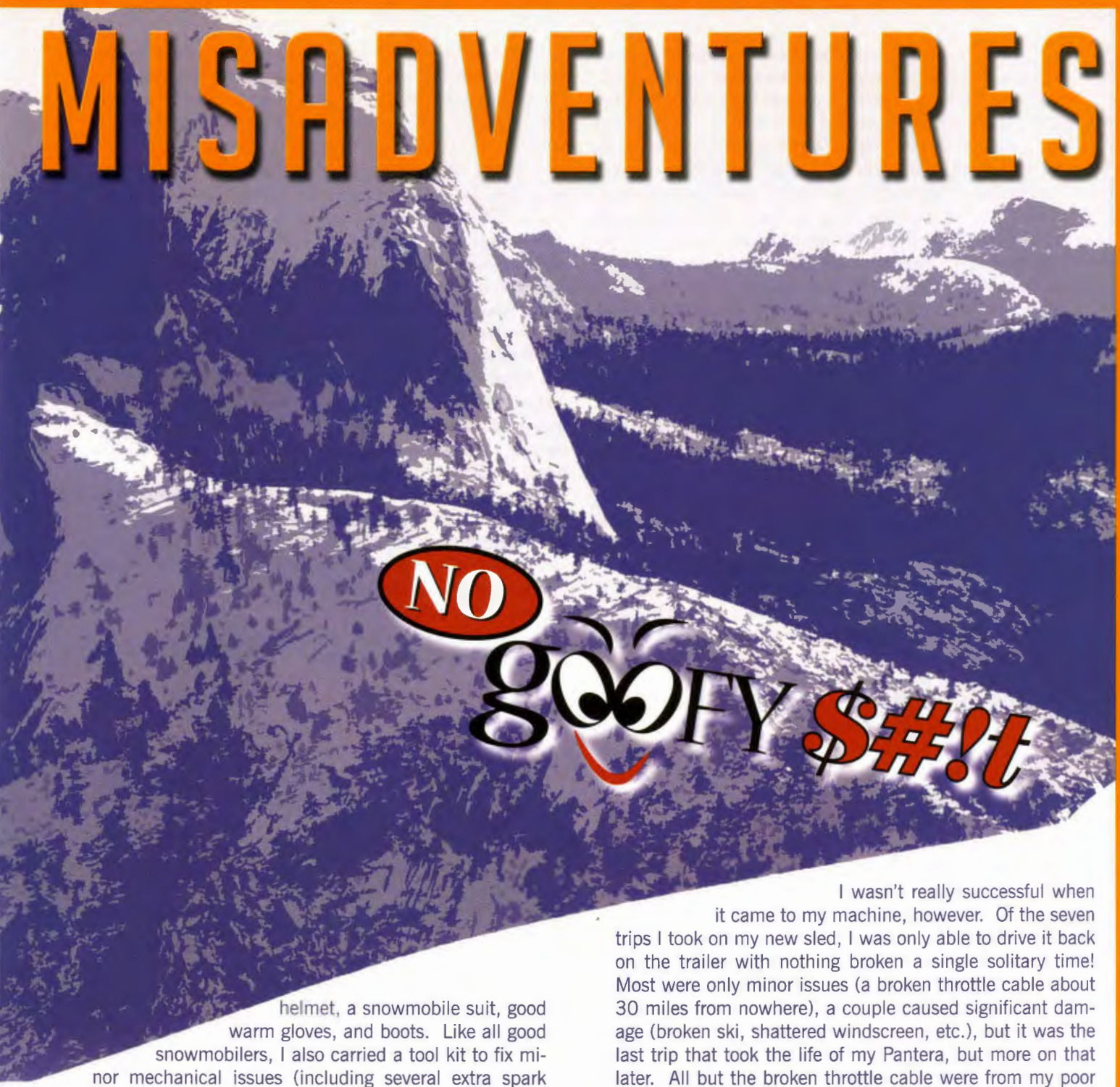
by Maj Brad Robinson, Langley AFB, Va.

While attending college in Logan, Utah, in the mid-80s, I had a friend with a couple of snowmobiles: a *Polaris Indy 600* and an older *Ski-Doo 440*. During the week we'd pull them up the canyon then zoom around all night long until we couldn't stand it anymore. Weekends gave us opportunities to go even further afield and explore some incredibly beautiful areas in the mountains of Utah. I enjoyed the zooming around, but I would also just stop, turn off the machine and revel in the beauty and solitude around me.

Of course, it didn't take long before I decided to get my own machine. I looked around and settled on an early-80s era *Arctic Cat Pantera* that had a 500cc air-cooled engine. It was a heavy machine, but really flew — on packed snow. It had no real suspension to speak of; just minimal travel for the track in the back and a solid bar in the front. It tended to get stuck more often in fresh snow than my friend's *Indy*. His sled had independent suspension and a deep tunnel (new improvements at the time). It had a 600cc engine and was the fastest sled of its day. But mine was no slouch. It had one of the largest air-cooled engines placed in a snowmobile — just what a bullet-proof twenty-something-year-old needed.

At the same time I bought my snowmobile, I also bought a full-face helmet. That single purchase saved me on more than one occasion. I got whopped pretty good several times by branches I didn't see, not to mention that it kept my face warm, so it was worth the purchase. I always rode with my

MISADVENTURES



helmet, a snowmobile suit, good warm gloves, and boots. Like all good snowmobilers, I also carried a tool kit to fix minor mechanical issues (including several extra spark plugs), a spare drive belt (they always seemed to break at the most inopportune times), a first aid kit, and a flashlight (usually even with good batteries).

Those of you who have snowmobiles know how much fun they can be. But as with anything driven by a gas engine, they have the potential to quickly get you into trouble. They can also be a lot of work. Because of their wide tracks, they tend to sit on top of snow when you ride, but as soon as you stop and step off, you can sink up to your waist — and when they get stuck, they're really stuck. It can take real effort to get a stuck machine un-stuck. Most times it involves physically lifting the machine out of the rut it dug and moving it to where the track can get a good grip. But the advantages outweigh the disadvantages.

I wasn't really successful when it came to my machine, however. Of the seven trips I took on my new sled, I was only able to drive it back on the trailer with nothing broken a single solitary time! Most were only minor issues (a broken throttle cable about 30 miles from nowhere), a couple caused significant damage (broken ski, shattered windscreen, etc.), but it was the last trip that took the life of my Pantera, but more on that later. All but the broken throttle cable were from my poor decision-making. Here is a couple of those experiences that could've been far worse but for good luck.

During one of our night canyon runs, we ended up in a bowl-shaped area that gradually sloped up to about a 45-degree angle. It was custom made for climbing and there were already several other riders testing the limits of their machines. I'd never tried that type of hill climbing, but after watching for a bit, I thought I had a good idea of what to do. Several riders were going straight up the side, then just before their sled bogged down, they'd quickly swing it back around and zoom down the hill. Others were taking more of an arcing approach, but they weren't getting nearly as high. Nobody had made it all the way to the top, though several had come close, including my friend.

I had a strong machine and the snow was well packed, so I decided to give it a shot. On my first (and only attempt) I tried a straight assault but misjudged when it ran out of juice and needed to be turned. As it turned out, I bogged my sled down and it got stuck better than three quarters of the way up. It was so steep I couldn't even let go of the machine or I'd just slide down the slope leaving my new machine stuck up there. After doing some quick (and faulty) ORM, I slowly slid down the seat on my stomach until I could grab the bar that doubled as a rear bumper. I managed to get my feet set in the snow and got a good grip to lift. My plan was to lift the back of the machine and swing it around, then hop back on and ride down the hill to the cheers of my adoring friends.

My spur-of-the-moment ORM didn't really work out as well as I'd planned. As I lifted the back of the machine to get the track out of hole it had dug, gravity took over (as a Physics major, you'd think I would've known that) and the sled started sliding down the slope — backwards — knocking me over still holding on to the rear lift bar. So there I was, sliding backwards down the hill with my chest against the back of my sled and my legs spread down both sides. We were picking up speed pretty quickly (that gravity thing) and I wasn't able to pull myself back onto the seat to try to steer, so I did the only thing I could think of; I pushed away and to the side of my sled — I essentially bailed out.

I got good man/sled separation and everything was going well until my snowmobile's track hit a rut. It pitched into the air and began an end-over-end backwards tumble. It was quite impressive from my seat about 10 feet away as pieces began flying off. I soon realized, however, it had changed directions and was tumbling towards me. I recognized we were on a collision course and started "crab walking" to try to get away. Every time I moved, the sled seemed to move with me. It was like it was aiming for me! Luckily, we came to a stop without crashing together and I could hear my friends hooting at my graceful slide.

The sled ended up on its side about 20 feet away from me, so I trudged over and found it wasn't all that badly damaged. The windshield was shattered, the front pull bar was bent, the fiberglass cowling was split, and the storage box at the back of the seat was crushed with its contents scattered from hill to dale, but it started right up. But my adventure didn't end there.

During the tumble, my headlight quit working (big surprise). For the ride back I was following in the wake of my buddy on his machine using his headlight to light the path for both of us. Luckily, the moon was full so there was plenty of light. We came to the rim of a hill and thought it was where we'd come up (there were fresh tracks on it). In the meantime, a fog had moved in and we couldn't see very far down the side. After discussing our predicament, we decided to slowly go over the edge and creep down the slope. This started off well, but as we moved further down, it got steeper and steeper — it was not the same one we'd come up. It got so steep I was on my brake as hard as I could press, but I wasn't slowing down. To add to my predicament, trees started to appear in my path. So there I was, on a machine with no headlight (thank goodness for the full moon), sliding down a hill at a good clip, and dodging trees as they whizzed by. Again, luck held sway and I got to the bottom without adding any more dents to my sled (or helment). We made it to the bottom, found the trail to the parking area, and limped back to the trailer. I was

"THE SLED ENDED UP ON ITS SIDE ABOUT 20 FEET AWAY FROM ME . . ."

able to get the parts to repair my machine and got it ready for my next big adventure.

That last trip on my *Artic Cat* was to a canyon just to the south of Logan, Utah. My friend had been there several times and knew the area very well — I didn't. The road out of the parking area was groomed for snowmobiles and had a 6-foot berm to keep trucks off of it. They'd cut an opening just big enough for one snowmobile at a time to fit through. The road up the canyon was ice packed and smooth as glass. You could flat fly up the hill (and back down). The traction was just good enough to make it fun tail sliding around every turn. It was perfect conditions for my machine. We went up the mountain above Logan and zoomed around for a couple of hours. It got pretty late, so we started back down. Once we hit the road, my friend poured on the coals and all I saw was his taillight pulling away. Not to be out run, I hit the throttle to keep up with him; and I was actually doing a pretty good job of it. I managed to stay less than 100 feet behind. I glanced at the speedometer several times and saw we were doing over 60 miles per hour with several straight stretches approaching 70.

My friend thought he'd left me in the dust (or ice pellets in this case) ,so when he got near the opening in the berm, he got hard on his brakes and slowed down to go through the opening. I was having so much fun, I didn't realize we were that close to the end of the trail. When I came around the bend just prior to the berm, I saw his brake light lit with him slowly pulling through the opening. I reacted quickly and hit my brake, but stopping is not a snowmobile's strong suit, especially one with no suspension on ice. There was no way I was going to stop in time. To avoid the collision, I steered for the berm to his left. I hit it at a pretty good clip and it acted as a ramp, catapulting me at least 15 feet in the air.

Here's where it got fun. The road we'd been on paralleled a small creek. Just past the berm, the canyon began a gentle curve to the right. The terrain on the other side was pretty steep. As I was soaring above the parking area enjoying the view, I noticed the canyon curving directly in front of me. I quickly figured out my trajectory wouldn't end in the flat parking area, but against that steep cliff. I decided it would be better to bail off my machine and take my chances with the trucks and trailers in the parking area than stay on my sled and ram the canyon wall. I jumped, landed oh so gracefully, and went sliding through the parking area unhurt. My snowmobile wasn't so lucky. It went straight into the canyon wall and dropped down about 5 feet into the creek below. The impact smashed up the front and broke the crankshaft on the engine (we found out later). It was a tragic end to my speedy machine.

My lessons learned from these adventures were many. With the hindsight of 20/20 and my time in the Air Force, I can see I made some pretty stupid decisions all along the way. One of the reasons I'm here to relate these was because I'd bought that full face helmet — and always used it. During many of my misadventures on that machine, I'd banged my head pretty good, but never even got so much as a headache or scratch out of it. I also wore a snowmobile suit for warmth and protection. I had good boots and gloves to keep my toes and hands warm. Many of those I rode with didn't use any type of Personal Protective Equipment (PPE). They usually ended up pretty cold, wet, and scratched by the end of our rides.

Snowmobiles can be a lot of fun and can take you to places most people never get to see with a white blanket of snow, but they can also hurt if not properly respected. Before riding, follow basic safety rules: Be in good shape, know your equipment, and have (and use) the proper PPE. Have fun.

Air Force Culture Assessment Surv

courtesy of Air Force Safety Center

Three Questions:

1. What is your perception of your organizational safety culture?
2. How accurate is your perception?
3. How does your organizational safety culture affect your unit's operational readiness?

Squadron commanders have a new tool to help assess their unit's safety culture and its impact on operational readiness – the **Air Force Culture Assessment Survey Tool (AFCAST)**. AFCAST is a web-based survey process (www.afcast.org) that provides commanders rapid access to their unit members' perceptions regarding operational and safety-related issues.

In 2003, the Secretary of Defense (SECDEF) established a goal of reducing preventable accidents by 50 percent. SECDEF increased this goal to 75 percent in 2006. To support this effort, the Air Force has been aggressively implementing safety programs and tools.

The AFCAST program is one part of the Air Force Safety Center's overall safety assessment program. AFCAST is a proactive mishap prevention process that aids commanders and senior leadership in risk assessment and intervention strategy development. AFCAST focuses on operations, maintenance, and other areas directly related to flight safety. The AFCAST process involves collection of data from organizations by means of on-line survey measurement tools that quantify respondents' safety perceptions.

AFCAST tools are based upon High Reliability Organization (HRO) theory pioneered by Dr. Karleen Roberts from the University of California Berkeley. HRO theory discerns key attributes of organizations that operate in hazardous environments, yet have very low rates of accidents and incidents. Dr. Roberts studied several kinds of organizations, and identified air traffic control, nuclear power plants, and U.S. Navy aircraft carriers as examples of organizations that performed well as HROs. She believed these organizations have certain key characteristics in common, such as: sound safety management policies, standardized procedures, adequate resources and staffing, defined system for risk management, strong leadership styles, and other key factors.

While cultural factors are difficult to define in terms amenable to observation and measurement, researchers at the Naval Postgraduate School, Monterey, California, developed the **Model of Organizational Safety Effectiveness** (MOSE) that incorporated organizational climate and cultural aspects which underlie Naval Aviation values and norms.

The six MOSE Components are:

1. **Process Auditing** — System of ongoing checks to monitor hazardous operations
2. **Reward System and Safety Culture** — Expected compensation/disciplinary action for safe/unsafe behavior. Safety culture encompasses a system of shared beliefs, values, attitudes and norms that govern individual and group safety behavior. Safety climate is a "snapshot" of individual and group safety behaviors that are influenced by day-to-day events occurring within the organization
3. **Quality** — Promotion of high-quality standards
4. **Risk Management** — Systematic process used to identify hazards and control operational risk
5. **Command and Control** — Policies/Procedures established/promoted by leadership
6. **Communication/Functional Relationships** — Effectiveness of information transfer and quality of relationships with surrounding organizations

"If you score in in the TOP qu

ey Tool (AFCAST) Program

AFCAST is the term used to collectively identify the tools developed to assess safety aspects of Air Force organizations. The MOSE model, originally developed for Naval Aviation, was expanded and used as the foundation for AFCAST. There are five surveys available: Flight Safety, Maintenance Safety, Private Motor Vehicle, Drinking and Driving, and Off Duty and Recreational Activity.

The Flight Safety Culture Survey assesses an organization's operational practices from an aircrew perspective. The Maintenance Safety Culture Survey assesses an organization's maintenance or support personnel operational practices. Both surveys document the perceptions of unit members to safely conduct operations in terms of: leadership, culture, standards, policies, procedures, and practices.

The three additional on-line surveys focus on individual and organizational attitudes and behaviors with respect to the organization's Private Motor Vehicle, Drinking and Driving, and Off Duty and Recreational Activity safety climate and support programs.

AFCAST provides squadron commanders with a means to survey their aircrew and maintenance personnel regarding safety issues, and receive real-time feedback on their attitudes and perceptions. This tool's key goal is identification and correction of subtle organizational conditions that increase mishap potential. Following survey completion, squadron commanders receive feedback concerning MAJCOM climate, safety culture, resource availability, workload, progress of safety intervention programs, and other operational factors relating to safety. AFCAST helps squadron commanders identify safety concerns and hazards while highlighting where to focus their hazard assessment efforts. Commanders and their Safety Officers/NCOs can use this information to develop strategies, perform risk management decisions, and implement controls to better their organization's performance.

Why use AFCAST?

1. **IT'S EASY** – simply set up the survey and direct your personnel to take it (takes about 5 minutes)

2. **IT'S CHEAP** – website based with no charge to participate

3. **IT HAS BACKSIDE SUPPORT** – once results are tabulated, there are professionals to help guide commanders to change negative cultures and reinforce positive ones

Commanders desiring AFCAST surveys should have their safety representative follow the SET-UP UNIT SURVEYS procedures listed on the AFCAST website (www.afcast.org) or contact the survey administrators at: 1(888) 603-3170

the BOTTOM quartile for culture, you are
artile for ACCIDENTS and INCIDENTS"

Monthly Award Winners – August

Crew Chief Safety Award of Distinction

TSgt Spencer McLaughlin
55th Aircraft Maintenance Squadron
55th Wing
Offutt AFB, Neb.

During an aircraft refuel, TSgt McLaughlin detected fuel running from the E-4B aircraft jettison valve. He immediately jumped into action. He stopped the refuel and notified the production superintendent and maintenance operations center. Without skipping a beat, Sgt McLaughlin shut down all Auxilliary Ground Equipment (AGE) in the area. Then he quickly attained the essential items from the spill response kit. Sgt McLaughlin proceeded to contain the fuel leak preventing threats to the environment. He then inspected and reset the jettison valve reseating the valve to the fully closed position stopping the leak. The superior action of TSgt McLaughlin prevented a possible fire causing damage or destruction to an $850 million dollar E-4B aircraft and mitigated an immediate environmental hazard.

Aircrew Safety Award of Distinction

Maj Ricky Thomas
Maj Luke Leveillee
Capt Derek Rutledge
Capt Michael Little
Capt John Hutchins
12th Reconnaissance Squadron
9th Reconnaissance Wing
Beale AFB, Calif.

During a combat mission, RQ-4A crewmembers displayed exceptional teamwork during a difficult emergency. The Mission Control Element (MCE) pilot, Capt Little, received several fault codes indicating low temperatures to the onboard computers due to a heating valve stuck in an intermediate position. Following the checklist, he initiated a return to base. The Global Hawk Operations Center officer, Capt Rutledge, provided immediate checklist backup as well as reaching the on-call engineer and coordinating with the Launch and Recovery Element (LRE) crew at the deployed location to be ready to receive the aircraft. Capt Little attempted to open and close the valve several times and descended to 50,000 ft in an attempt to warm the computers, per direction of the checklist, with no success leading to even colder temperatures. After a shift change, Capt Rutledge assumed control of the aircraft and the LRE crew, consisting of Maj Thomas and Capt Hutchins, as well as the chase car pilot, Maj Leveillee. Approximately 1.5 hours from landing, one of the mission computers shut down. The crew became inundated with 44 different fault codes indicating problems with all six of the major aircraft systems. Maj Thomas suggested the best course of action was to take the aircraft off its flight plan and descend directly towards the field to warm the aircraft, lessen flight time, while maintaining appropriate engine-out glide range. The LRE crew assumed control of the aircraft, declared an emergency and coordinated with the local controlling agency for the non-standard routing of the aircraft through an area of high-density air traffic. On short final, the last remaining computer began to fail and the aircraft simultaneously lost primary data links. Both MCE and LRE were without any command and control capability during this critical phase of flight. Had the crew elected to fly their standard routing or had they not inhibited the go-around capability, the remaining mission computer would have failed completely and the aircraft would have crashed. The crew's teamwork and airmanship saved a $50 million Intelligence, Surveillance and Reconnaissance asset and serves as a fine example of Crew Resource Managament.

Ground Safety

Award of Distinction

A1C O'Reilly observed and acted on a severe workplace hazard after only 7 months at his first duty station. He designed and built a fixture to hold an end mill arbor securely during cutter install/removal. The end mill arbor is used to machine metal; it features a razor-sharp cutter resembling a specialized drill bit. Airmen must forcefully torque an arbor chuck held in a bench vise to install/remove the cutter from the arbor. The cutter assembly often slips from the vise grip, propelling Airmen toward the cutter. A1C O'Reilly's ingenious fixture conforms to the shape of the chuck and provides a risk-free means to mount the cutter and was manufactured from left-over material. His cutter block has eliminated all risks associated with the install/removal procedure.

A1C Bradford T. O'Reilly
5th Maintenance Squadron
5th Bomb Wing
Minot AFB, N.D.

Pilot Safety

Award of Distinction

While executing a combat reconnaissance mission supporting Operation ENDURING FREEDOM, Maj Ryan experienced a hydraulic fluid leak while more than 1 hour away from base. The leak progressed rapidly, rupturing the hydraulic pump, and forcing parts into the accessory drive assembly; this led to a catastrophic failure, zero hydraulic pressure, and only emergency battery power for the aircraft. Maj Ryan quickly realized he had only 45 minutes of battery life available, leaving the aircraft unable to land. He quickly began shedding the secondary systems and turning off all unnecessary components that drain power. This doubled the rated life of his electrical system, providing extra time to return to base and attempt a landing. The U-2 environmental system failed which plunged the cockpit ambient temperature to -80 degrees Celsius. Maj Ryan began an immediate decent into warmer air, navigating solely off of a handheld GPS and the aircraft's standby flight display descending low enough to depressurize the aircraft and allow frost to melt. This posed a new physical challenge in that ground temperature exceeded 115 degrees Fahrenheit, adding to the physical demands of the pilot who was wearing an insulated full pressure suit. After 45 minutes of mental and physical strain, Maj Ryan was able to maneuver the crippled aircraft to the final approach and power up several aircraft electrical systems that are required for landing. He was finally able to verify the position of his landing gear and have access to the Emergency Spoiler System. He made a textbook approach and a flawless touchdown; expertly diagnosed that the engine at idle power was producing too much thrust, immediately shut down the engine, and was able to stop on the runway. Maj Ryan's outstanding judgment, aviation skill, and composure under pressure allowed safe recovery of this critical asset.

Maj Thomas F. Ryan
99th Expeditionary Reconnaissance Squadron
9th Reconnaissance Wing
Beale AFB, Calif.

Monthly Award Winners – August

Unit Safety

Award of Distinction

The Flight Safety office is responsible for ensuring safety for ACC's largest programmed Flying Training unit. They implemented a FOD prevention of weekly FOD walks with their associated aircraft maintenance unit. Earned inaugural quarterly "Sentry FOD Award" — squadron made the greatest contribution to FOD prevention. They have maintained constant engagement with students; introduced pertinent safety topics to more than 700 students weekly. The safety briefing topics are included daily during mission planning briefings and weekly during hall calls. Initiatives developed instrumental in reaching new Airmen and instilling a career-long safety conscious ethos. The squadron SE publishes a weekly safety newsletter that informs the 963rd AACS on current safety issues and trends. The newsletter was recognized as a best practice and is disseminated throughout the wing's flying squadrons — wow! Developed a safety pamphlet for newly assigned Airmen; the pamphlet contains information that familiarizes new Airmen with local area hazards, flight line dangers/movement areas and AWACS-specific risks. It also includes guidance for approaching aircraft with engines running, Auxiliary Power Unit (APU) safety, and taxi procedures to name a few.

963rd Airborne Air Control Squadron
552nd Air Control Wing
Tinker AFB, Okla.

Weapons Safety

Award of Distinction

This astute professional's safety mindset had a profound effect on the success of ACC's exclusive air-to-ground Weapon System Evaluation Program (A/G WSEP). This was evidenced by the 86 FWS' impressive mishap-free quarter; an amazing accomplishment directly attributed to his vigilance and stringent safety awareness. Sgt Thomas was personally responsible for discovering an extremely dangerous F-22A maintenance practice. His boundless safety attentiveness identified the improper utilization of a One Step Loading Adapter with bomb roller extensions for uploading and downloading large-diameter munitions. This equipment combination created an unstable loading platform. After highlighting this dangerous practice, Sgt Thomas researched and found this to be a common practice taught during load certification training amongst multiple F-22A units. He quickly up channeled the information to ACC and sought resolution through the Munitions Material Handling Equipment (MMHE) focal point. MMHE immediately conducted tests to confirm Sgt Thomas' findings and recommended exclusive use of the 6 1/2 inch weapons loading adapter for all F-22A large-diameter munitions loads. Additionally, while executing weapons load assessments during COMBAT HAMMER operations, Sgt Thomas identified 18 major discrepancies. He personally pinpointed three incorrectly wired CBU-105 arming lanyards, six loose MK-82 M905 nose fuses, and nine misrouted GBU-10/12 laser-guided bomb lanyards. If left uncorrected, these grave errors may have resulted in improper weapons separation from the aircraft and/or failure of fuses to function during the terminal phase of weapons employment. Sgt Thomas' spectacular weapons safety prowess ensured 167 A/G WSEP test/training munitions were properly assembled and loaded. His unsurpassed diligence averted potential explosive mishaps and ensured every weapon employed during these highly complex operations was able to function as designed. Furthermore, his meticulous management of both the ground and weapons safety programs garnered phenomenal "zero discrepancy" ratings during the recent Ogden Air Logistics Center's safety inspection. His outstanding efforts ultimately translated into improved weapons systems reliability and greatly promoted increased Combat Air Force lethality.

SSgt Brian E. Thomas
Detachment 1, 86th Fighter Weapons Squadron
Hill AFB, Utah

ACC Safety Salutes

Superior Performance

EIGHTH AIR FORCE

SSgt Scott L. Orta
963rd Airborne Air Control Sq.
552nd Air Control Wing
Tinker AFB, Okla.

TSgt David H. Streeter
1st Airborne Command and Control Sq.
55th Wing
Offutt AFB, Neb.

TSgt Donald J. Bausman
5th Bomb Wing
Minot AFB, N.D.

5th Maintenance Sq.
5th Bomb Wing
Minot AFB, N.D.

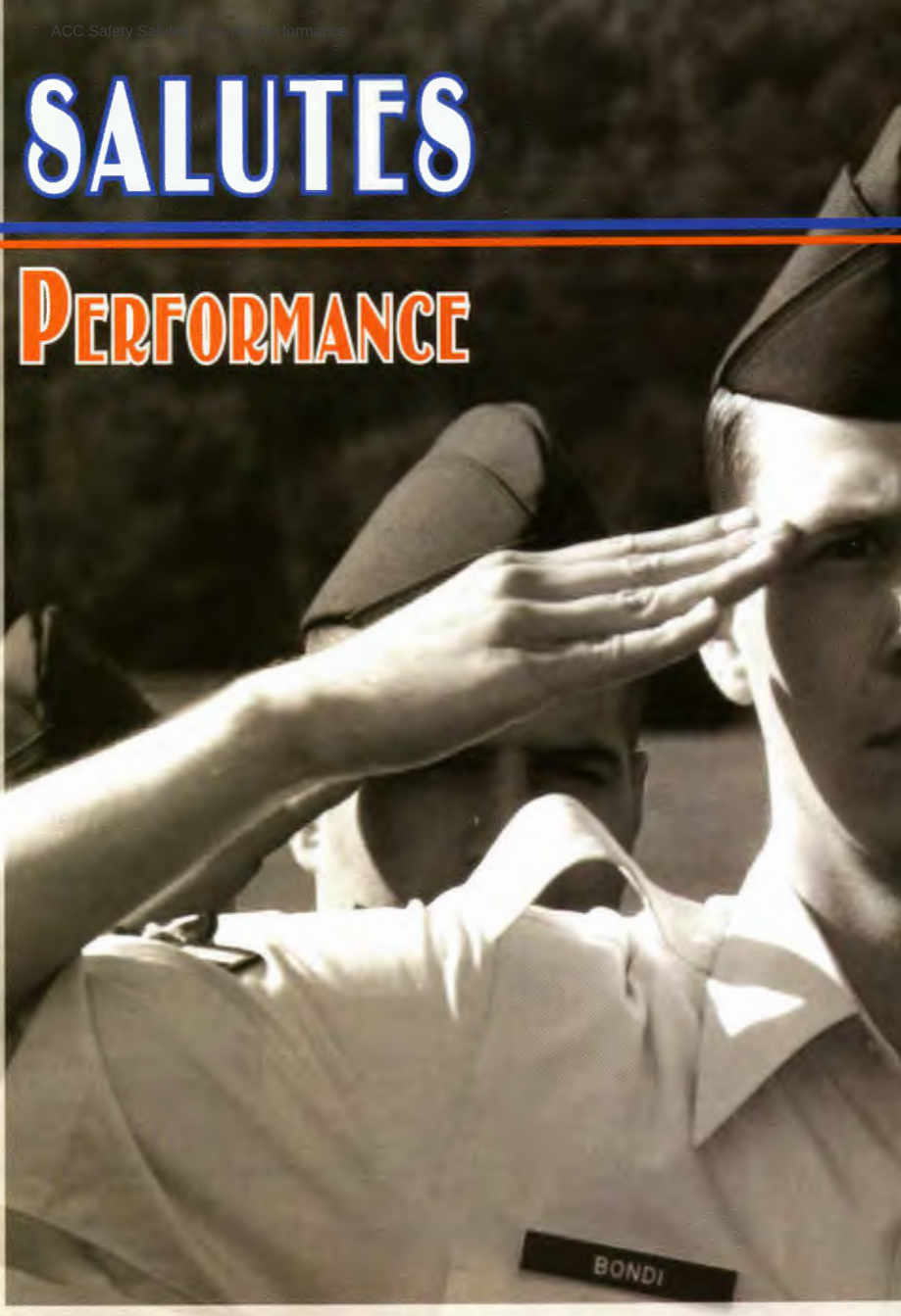
NINTH AIR FORCE

Capt Derek M. Cunningham
Lt Matthew W. Nevius
Lt David E. Warren
Capt Christopher P. Plymale
Lt John E. Graham
SSgt Kenneth Z. Martinez
SrA Matthew S. Fullwood
SSgt Valerie H. Reynolds
71st Rescue Sq.
23rd Wing
Moody AFB, Ga.

SrA Courtney E. Strickler
455th Expeditionary Aircraft Maint. Sq.
Bagram Air Field, Afghanistan

A1C Stephen J. Meredith
4th Equipment Maint. Sq.
4th Fighter Wing
Seymour Johnson AFB, N.C.

SrA Daniel Ramirez, Jr.
4th Equipment Maint. Sq.
4th Fighter Wing
Seymour Johnson AFB, N.C.



USAF WARFARE CENTER

Maj Christopher D. Coddington
85th Test Sq.
53rd Wing
Eglin AFB, Fla.

Capt Colin Q. Hanson
59th Test and Evaluation Sq.
Tyndall AFB, Fla.

Maj David C. Epperson
USAFWS
Nellis AFB, Nev.

TWELFTH AIR FORCE

Maj Scott A. Hoffman
355th Fighter Wing
Davis-Monthan AFB, Ariz.

Monthly Award Winners – September

Flight Line Safety
Award of Distinction

TSgt Rebecca A. Logan
509th Operations Support Squadron
509th Bomb Wing
Whiteman AFB, Mo.

TSgt Logan went above and beyond during Whiteman's threshold displacement construction project. By displacing the threshold, the 509th Bomb Wing remained operationally ready to support all tasking orders. Her thorough analysis and understanding of displacing a threshold ensured safe operations during construction. Sgt Logan completed a pre-inspection of the work plan identifying five discrepancies in need of mitigation. The timeliness of her pre-inspection allowed Civil Engineering to focus efforts in resolving the discrepancies. Working with HQ ACC Terminal Instrument Approach Procedure Specialists, Sgt Logan remedied three obstruction violations within hours by applying a common sense approach to mitigate the outstanding issues. She prepared personnel by ensuring high awareness during planning/execution stages of the operation. Vital information passed to each Airman daily through briefs and e-mails ensured safe airfield operations. Her meticulous attention to detail was key in resolving runway markings damaged by taxiing aircraft. Correcting damaged areas on the spot resolved coordination delays, keeping the airfield fully operational. TSgt Rebecca Logan is the mainstay linchpin in airfield safety and training; the 509th Bomb Wing's airfield activities are enabled by her professionalism and dedication to the mission!

Ground Safety
Award of Distinction

SrA Dawn F. Jackson-Barry
966th Airborne Air Control Squadron
552nd Air Control Wing
Tinker AFB, Okla.

SrA Jackson-Barry created a rotating briefing topics schedule that covers 14 subjects including: Safety Privilege, Flight Line Safety, BASH, MACA, ORM, High Risk Activities, Weather and FOD. She incorporated data into a reference pamphlet that was distributed to 100+ students. Her fliers and briefings instill safety ethos during initial training; students incorporate info throughout FTU/552 ACW. Superb dedication; solely initiated two random seat belt checks — efforts enhanced base-wide safety awareness. Amn Jackson-Barry conducted an additional inspection of facility fire extinguishers to validate facility-manager inspection records. She has amazing attention to detail; identified 15 faulty fire extinguishers not in compliance with inspection standards. Coordinated bottle service/established new inspection procedures — guarantees functional equipment for 360 people. She has incredible foresight; delivered SQ seasonal area driving brief — identified local safety hazards/considerations. A self starter; conducted fire hazard spot-inspection for 33 offices — ensured SQ compliance with AFOSH regs. Conducted quarterly building fire inspection; corrected eight discrepancies — bolstered SQ's fire-prevention posture. She revamped SQ's Form 55 processing system; increased accuracy 60 percent — forms now compliant per AF directive. Generated new facility SQ safety board; updated operational info — promotes safety awareness for 40 aviators. Exemplary performance; crafted SQ seasonal WX brief — established precautions/guidance for 150+ members. Amn Jackson-Barry is truly astounding — she implemented SQ weekly safety newsletter which has been identified by WG/SE as a 552 ACW "Best practice."

AIRCREW SAFETY

Award of Distinction

Capt David Cavazos
1Lt Charles Stachour
Capt Anthony Capparelli
MSgt Michael Skinner
SrA Paulino Sotomayor
966th Airborne
Air Control Squadron
552nd Air Control Wing
Tinker AFB, Okla.

The crew of SENTRY 60, an E-3 AWACS, took flight in support of a Flying Training Unit combat training mission. Approximately 5 minutes into flight, during initial climb, the Flight Engineer (FE) notified the crew of inability to pressurize aircraft. The cabin pressurization gauge showed 8,000 feet and climbing at 8,000 feet AGL in "AUTO" pressurization mode. The Aircraft Commander (AC) coordinated with Air Traffic Control for immediate level-off and initiated "Loss of Pressurization" checklists with the crew. The FE assessed aircraft bleed-air, forced air cooling, and pressurization systems to determine cause of problem. Aircraft outflow valves were open and non-responsive in automatic mode; crew transferred the system to "MANUAL." With aircraft pressurization system restored, aircrew elected to continue the mission and departure climb. While passing 9,000 feet AGL, the Aircraft Radar Technician notified the flight crew of an oxygen leak in the aft lower lobe of the aircraft. The AC initiated an immediate level-off and shut down all electrical power in the aircraft's aft lower lobe. The FE coordinated with the flight deck and verified actual O2 leak; AC directed crew to reduce electrical load in leak area. Ultimately, SENTRY 60 declared IFE with Air Traffic Control and returned to base following coordination with Supervisor of Flying. The crew elected to dump fuel en route to max landing weight — left fuel dump chute failed to extend upon activation. FE executed fuel burn sequence and cleverly averted perils associated with irregular lateral CG landing. Crew landed without incident/taxied to park. Ground advised crew of ruptured brake line on #4 right main brake; crew quickly verified brake energy limits. The data confirmed remaining brakes/tires were not about to fail; ensured safety of ground and aircrew members. The teamwork, professionalism and ingenuity led to safe recovery of a $335M AF asset and 23 E-3 crew members.

CREW CHIEF SAFETY

Award of Distinction

SrA Aaron Brown
SrA Brian Schultz
SrA Andrew Markey
552nd Aircraft
Maintenance Squadron
552nd Air Control Wing
Tinker AFB, Okla.

Senior Airmen Brown, Schultz, and Markey were preparing aircraft 76-1604 for launch in support of a crucial Operation NOBLE EAGLE (ONE) mission. Extreme temperatures required Air Conditioning Equipment (ACE) support to allow safe operation of electronic/communication equipment. Airman Brown witnessed a plume of smoke emerging from within the ACE. He immediately investigated the ACE smoke source. Airman Brown discovered the ACE clutch was red hot and quickly powered-down and disconnected the ACE, thus eliminating any potential fire hazards. Meanwhile, Airman Schultz notified the aircraft commander of the situation; COMM equipment was shut off to avoid potential COMM equipment failures. Airman Markey coordinated the removal of the ACE further ensuring the safety of 76-1604, surrounding aircraft, and 24 crew members. Airmen Brown, Schultz, and Markey swiftly replaced faulty ACE, allowing the continued preparation for a vital ONE sortie. Their outstanding situational awareness and teamwork prevented the loss of $172K ACE and ensured a successful ONE mission.

Quarterly Award Winners

Ground Safety Award of the Quarter

TSgt Terrance L. Ladd
447th Expeditionary Logistic Readiness Squadron
USCENTAF

TSgt Ladd established a significant safety program with commander interaction at all levels; works as USAF designed. He ensured safety review/risks identification of 1,100 plus maintenance actions; safest maintenance ops in AOR. Sgt Ladd has USR oversight over 100+ Engine Running Ops (ERO) on/offloads; ensured 6K passengers moved without incident. He also established ground safety monitor system; sections report status weekly — program lauded as "best on Sather." His directed cleanup/removal of 300,000 gal fuel farm resulted in the land being reinstated; "Zero" environmental impact. He coordinated on the first ever Expeditionary Logistics Readiness Squadron supply OI; first Baghdad International Airport OI to include aspects of risk management. Directly supported Coalition Transition Team; Iraqi's trained fuel truck/aircraft receipt; first Iraqi Air Force Petroleum, Oxygen and Lubricants Safety. He personally sampled 12K fuel for analysis; DoD specification of 5.5M gals of JP8; preventing aircraft mishaps. Inspected warehouse, 300,000 lbs of material stored with proper access ways/safe zones — hazards reduced. Initiated a complete unit safety program assessment; 100 perecent of workers trained with job specific technical orders. Organized/oversaw buildup of fuel berms; created environmentally safe fuel storage for 200K gallons. He physically inspected six major sections preparing for higher level inspections; "Zero" write-ups on final report. TSgt Ladd handled a 7 percent increase in ops tempo/72 percent increase in fuel storage, while reducing risks of mishaps. Built steps allowing safe access in/out of bladder areas; workers now have proper egress over 10 ft berms. He runs the most active safety program on Sather; 25+ Safety briefs conducted all over the unit; "awareness" Job #1. First to establish unit CC mishap reporting policy on Sather AB; set the standard for other units to follow!

Weapons Safety Award of the Quarter

Mr. Charlie Toomer
9th Maintenance Squadron
9th Reconnaissance Wing
Beale AFB, Calif.

Mr. Toomer's phenomenal management resulted in an "Outstanding" rating during 9 RW/SE Weapon's Safety Program Assessment. He's above reproach! He has received laudatory comments from wing safety personnel during the weapons safety assessment. In his infinite wisdom and outstanding initiative, he implemented cradle-to-grave handling procedures for all unit assigned munitions items. Mr. Toomer is truly a dedicated professional who ensured all unit personnel were educated on safe handling and storage principles. He is a superb manager of the squadron's weapons safety program — diligent efforts resulted in zero unit explosive mishaps. He has keen insight! Mr. Toomer developed an explosive safety training program for the unit where one never existed. Benchmark item! Lesson plan was adopted by multiple units to meet strict munitions safety requirements. He's proactive! Continuously conducts unit self inspections ensuring all explosive safety standards are being met. His dedicated efforts in the explosive mishap prevention program resulted in zero mission-related incidents. He expertly performed 32 spot inspections identifying numerous discrepancies which were fixed at the site.

FLIGHT SAFETY

Award of the Quarter

Capt Rutledge concluded his 1.5 year tour as the Air Force's first RQ-4A wing Flight Safety Officer (FSO). He validated the ability for the RQ-4A to safely fly in northern California (5,000+ civilian traffic per day.) Capt Rutledge was selectively picked to be the pilot representative to ACC's Global Hawk ORM assessment. He delivered technical expertise to identify and evaluate the flight risks associated with introducing a new technology into the National Airspace System, educating the local aviation community about Global Hawk. Capt Rutledge publicized temporary flight restrictions around Beale AFB to actively prevent general aviation violations. He also conducted four external agency briefs, including FAA-sanctioned flight safety meetings at local Flight Standard District Offices. His unique skills led to his selection as a Class A Predator mishap investigator, which took him into hostile combat territory to determine the mishap causes and prevent repeated losses. The final report was applauded by HQ ACC. Capt Rutledge's safety findings will correct a 7-year trend of MQ-1 landing mishaps costing $4.5M per year. His keen investigative ability was vital in the RQ-4A Class E, HAP safety incident. He recognized a discrepancy in different altitude solutions used by the RQ-4A in various phases of flight. Capt Rutledge used his unique position to take action in changing local procedures and authored a COMBAT EDGE magazine article to clear up confusion and keep pilots at procedurally correct altitudes. He and his crew were responsible for saving a combat aircraft crippled with 40 different faults. Capt Rutledge and his crew were able to diagnose the problem and safely land an aircraft with a severely degraded mission management computer remotely using reach back technology. His quick decision-making prevented the overheating aircraft systems from shutting down, saving $50M. From Class A investigator, RQ-4 ORM advisor, and 9 RW FSO, Capt Rutledge exemplifies the safety ethos!

Capt Derek M. Rutledge
12th Reconnaissance Squadron
9th Reconnaissance Wing
Beale AFB, Calif.

CHECK OUT

the Safety Directorate Community of Practice (CoP) website

https://afkm.wpafb.af.mil/ASPs/CoP/OpenCoP.asp?Filter=OO-SE-AC-23

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Items found on site:

- Frequently asked questions module
- The most current mishap rates and statistics
- Uploads and crossfeed information from across the command
- Voluntary Protection Program Information
- ACC Awards Templates with instructions
- Calendar of events (training, conferences, etc. with POC information)

FY07 Aircraft

As of October 1, 2007

	Fatal	Aircraft Destroyed	Aircraft Damaged
8 AF			
9 AF			
12 AF		**	** (MQ-9)
AWFC		** **	**
ANG (ACC-gained)		** * **	
AFRC (ACC-gained)			

FY07 Ground

As of October 1, 2007

	Fatal	Class A	Class B
8 AF		6	2
9 AF		9	0
12 AF		4	4
DRU's		4	0

= Fatal = Fatal due to misconduct

FY07 Weapons

As of October 1, 2007

	Class A	Class B
8 AF	0	0
9 AF	0	0
12 AF	0	0
AWPC	0	0

Aircraft Notes

ACC experienced three Class A mishaps since 1 Aug. Fortunately, none involved injuries (besides the bird), and none were destroyed aircraft. An MQ-9 was damaged during a hard landing in CONUS. An F-16C experienced an engine malfunction with a post landing fire which was contained by fire crews in the AOR. Lastly, an F-15E was damaged by a bird strike while practicing for an airshow. FY07 mishap rates were double those for FY06 due to multiple factors: human factors, BASH and MX/logistics. Winter is upon us as well as the IMC we must endure. Engines run poorly after eating several pounds of ice, and wings loose significant lift with as little as a frost coating. All are good reasons to review your cold weather procedures, 11-217, and weather divert options while at ground speed zero.

Ground Notes

FY07 did not end as well as the previous year. The command sustained 23 Class A ground mishaps — an increase of 9. There were 2 on duty and 21 off duty and the command lost 22 warriors. Lack of Personal Protective Equipment, speeding, fatigue and alcohol were factors in 10 of the mishaps. With the start of the new fiscal year, now is the time to impress upon Airmen to be ever watchful of their Wingman, and to always practice sound Personal Risk Management strategies.

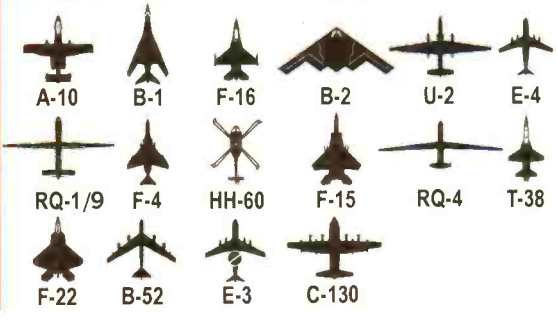
Weapons Notes

We have reached the end of another fiscal year without a Class A mishap! This, of course, is the good news; however, we did have a negative trend with regard to the type of mishaps we experienced this year. That trend is the activation of explosive devices. ACC experienced 25 mishaps this fiscal year, and 13 of those mishaps were the activation of some type of munitions item. This is something we must correct. Each of us needs to take an aggressive approach through our mishap prevention program to reverse this before it becomes a bigger problem. The cause of the majority of the mishaps is simply not following technical orders. Keep up the good work and do your part to put an end to inadvertent activation of munitions.

Legend

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

Symbols for Mishap Aircraft

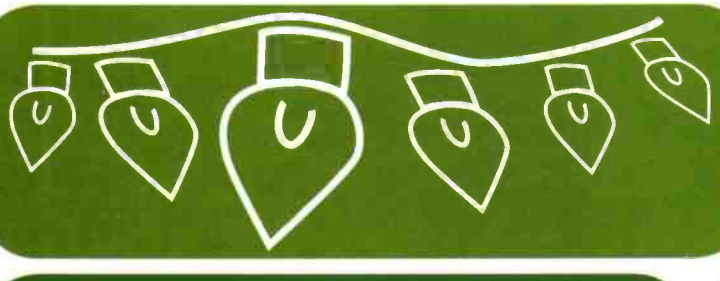



Fleagle
I WROTE THIS HOLIDAY MESSAGE, TINY. TELL ME WHATCHA THINK.
WE TRIM THE TREE,
WE BUY THE GIFTS,
FROM LISTS SHORT AND LONG.
WE WALK IN SNOW,
WE SMILE A LOT,
THE AIR IS FILLED WITH SONG.
HARRISON
WE TALK TO FRIENDS,
WE PET SMALL DOGS,
THERE'S JOY ALL AROUND.
WE EAT TOO MUCH,
FROM TABLES GRAND,
AND ADD THAT EXTRA POUND.
SO TAKE A MOMENT,
AND THINK OF THOSE
WHO SERVE OUR NATION'S CALL.
BUT MOST OF ALL,
THINK OF THOSE,
THE ONES WHO GAVE THEIR ALL.
WELL ?
SNIFF
HE DIDN'T SAY NOTHING.
HE LIKED IT, FLEAGLE.

Holiday Tree Safety Tips

- Consider an artificial tree (they are much safer and cleaner).
- A real tree should not lose green needles when you tap it on the ground.
- Cut 1 inch off the trunk to help absorb water.
- Leave the tree outside until ready to decorate.
- The stand should hold at least 1 gallon of water.
- A 6' tree will use 1 gallon of water every 2 days.
- Mix a commercial preservative with the water.
- Check the water level every day.
- Secure the tree with wire to keep it from tipping.
- Keep tree away from floor heaters, fireplaces, or other heat sources.
- Use only UL-listed lights, and no more than 3 strands linked together.
- Use miniature lights that have cool-burning bulbs.
- Never use candles, even on artificial trees.
- Dispose of the tree properly.

NEVER BURN A REAL TREE IN THE FIREPLACE!



Clean the tree stand to improve the tree's water intake, use one capful of bleach to a cup of water

Turn off the decorative lights when you sleep, or if you leave your home for a long period of time