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Goose Bay reported worsening visibility due to snow. The radio crackled with static as the battery charge became low. Then, the number four engine rpm began to unwind. The only possible explanation was fuel starvation in the number four main tank. We had to use body tank fuel, which instantly restored the engine but increased the battery drain.

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reetings again! Last month I talked about a mishap-free 101 Critical Days of Summer. Thus far (I am writing this month's Accent article on 3 June) we have already had 3 Class A off duty mishaps which resulted in fatalities. This is obviously a very tragic and inauspicious start (3 fatalities in 6 days) to our high risk summer holiday period. In each of the three accidents, some common trends once again emerge. Excessive speed is an apparent factor in 2 of the accidents. Even seat belts and shoulder harnesses can't save you if you're trying to reach the sound barrier when you're operating your vehicle. Safety devices will make a difference, but, you have to give them a chance to help if needed.

The third mishap was an unfortunate case of running a stop sign on the way to work into the path of an oncoming 18-wheeler. Again, most PMV's aren't going to win this type of confrontation. The bottom line remains — drive smart and defensively. Obey posted limits — they're not there just to ensure you can make it around the next curve, they are there to provide the necessary margin to help ensure you reach your destination alive and well. Obviously, a mishap-free 101 Critical Days period this year is no longer an option, but I would personally welcome no more loss of life this year — let's make it happen!

Flying at Kirtland recently, I was once again reminded how rapidly conditions can change. A beautiful VFR day turned pretty nasty — I was weather recalled and managed to avoid a divert to an alternate by a matter of minutes thanks to a timely decision by the SOF and expert handling of the recovery by the flight lead. The lesson relearned is to **NOT** take things for granted during the period of summer thunderstorms. Don't let complacency jump up and bite you — be ready and alert!

I hope you all had a very enjoyable 4th of July holiday and I wish you a very enjoyable rest of the summer! Be safe!!

> Colonel Bob Jones Chief of Safety





Colonel Tex Hawkins HQ ACC/SP Langley AFB VA

n the past when one would hear the words security or security police, the initial reaction from most people would likely be either restrictions people didn't like or visions of radar guns, traffic tickets, guns, and ID card checks. In many ways we, the security police, WERE a reactive or restrictive force.

Today our orientation is toward a proactive partnership to meet our customers' needs. We ALL must join together to ensure the safety and security of Air Force and personal property and our people. No longer can we lock ourselves narrowly into our stovepipe disciplines. Security and safety are EVERYONES' business — not just the security police and local safety office. SAFEI Partnership

To chart that new paradigm of proactive policing vice reactive policing, three primary key result areas demonstrate our new direction: Security — Community Policing — and Readiness.

Traditionally the security of key flightline resources was oriented toward a joint effort of all flightline disciplines, but in reality the duty was left mainly to security police. No longer can our security specialists go it alone. Manpower for aircraft security on the typical flightline can be counted on one hand. At the same time, despite the impression that the cold war has lessened the threat to our aircraft, the traditional threat — disgruntled employees, dissident groups, or the crazies --- remains unchanged. During the past two years over 20 incidents have threatened the safety of our aircraft. A F-15 was damaged by a dissident element at one base, a C-141 damaged at another, and one of our Thunderbirds nearly destroyed by a deranged person. In the past the easy solution was to throw more manpower and money at the problem. Today, partnership and ingenuity must try to solve the problem.

Air Combat Command has initiated the Flightline Enhancement Program — offsetting security police manpower for technology to help ALL flightline disciplines. Surveillance camera systems are being installed at all Air Combat Command bases. These systems, while aiding security, are also used by other wing agencies to help during aircraft generations, inflight emergencies, ground emergencies,

# **GEGURIAN TO SECURITY SECURITY TO SECURITY TO SECURITY TO SECURITY TO SECURITY TO SECURITY**

supply dispatches, etc. This innovation will be matched with a greater emphasis on joint security responsibility at the wing level and new intruder detection technology in the future. The new partnership is already paying off. At one base, dissidents gained entry to an aircraft parking area seeking to damage multiple aircraft. In less than one minute the intruders were detected and detained by Maintenance personnel. At another base, the system was used to aid the initial reaction and follow-up to a major aircraft accident. The Operations, Security Police, Maintenance team is the key to the security and safety of our aircraft — it's working!

Community Policing is another area of bright promise. No longer can we react to the threat that affects the safety of our community caused by drugs, alcohol, traffic safety, and people who ignore the law. Like flightline security, more manpower is NOT the answer. We must do things smarter - we must try to prevent problems before they occur. Ninety-two percent of our bases now have Drug Awareness Resistance Education (D.A.R.E.) programs taught by policemen in the local schools. The goal — instill in young people a "Just Say NO" attitude BEFORE they are confronted with drugs. Over 20,000 students have been taught. Bike Patrols have been started at nearly 70 percent of our bases. These patrols are a benchmark for the Air Force. They allow the security police to be up close



and personal with their customer. No longer will the image be one of intimidation or aloofness, but rather a police force the customer can interact and empathize with. A side benefit is that customer satisfaction has increased to over 95 percent and reaction time to incidents in progress is less than five minutes. That's great for all of us. The customer/police partnership is working. Here's another example which highlights a more effective way to "police." At Langley AFB, the security police have introduced solarpowered speed display devices to warn individuals if they are over the speed limit. Now, rather than manpower intensive "radar traps," this innovation will assist in deterring speeders without the old adversarial approaches. Again, another smart use of working for and with the community.

My last example of community policing is occurring at Lajes Field, Azores. They are our lead base in environmental policing. In the past, security police lack of awareness concerning environmental issues (i.e., dumped batteries or solvent barrels in a creek) would have resulted in "Hey, that's a Civil Engineering responsibility." Now, like flightline security - stovepipes are out and joint identification and prevention is OUR responsibility. Our goal is to have all security police in the environmental protection process.

The community policing thought process is contributing to a safe environment for us all— DWIs down 12 percent, drug trends down 32 percent, vehicle accident rates down 38 percent, larceny/burglary down 9 percent. It's working.

Security and safety are a complex relationship that must go hand-in-hand to build the protection for OUL resources and people and prepare us for war. Through continuous learning we'll provide a smarter more effective way to support all our goals.

The last key area is Readiness. Everyday over 7,000 security policeman, some only 18-years old, arm up with handguns, rifles, machine-guns, and grenade launchers. Annually over nine million rounds comprising 32 different calibers of ammo are fired under the supervision of Combat Arms Technicians. The challenge is to train the force to be ready for war, but to do it safely. Throughout all last year over 97,000 students were trained by Combat Arms instructors without one serious injury. This area also provides opportunities for innovation. Air Combat Command security police are taking the lead from the operations community in using simulators to better prepare for war as well as the day-to-day role of deterrent. By the end of the year, every wing will have a firearms simulator to better train our customers, both cop and non-cop, to qualify with weapons and to react to pressure "shoot-don't shoot" scenarios. That has never been possible in the past. A bonus - while the new simulators WILL NOT replace live fire, they will add to the safety of firearms training and reduce lead contamination. A win/win for safety and readiness.

Security and safety are a complex relationship that must go hand-in-hand to build the protection for our resources and people and prepare us for war. Through continuous learning we'll provide a smarter more effective way to support all our goals. We are all integral players. The partnership between safety and security strengthens and fosters mission effectiveness. Never can one be sacrificed for the other. ■

SSgt Michael A. Luckadoo 509 BW/SEG Whiteman AFB MO

#### **A MATH TEST FOR ALL AGES...** F = ma $KE = 1/2mV^2$

#### Do you know what these equations are used for?

r. Albert Einstein and Sir Isaac Newton, famous mathematicians from our not so distant past, theorized and worked with equations just like these. We have all seen one or two of these mathematical problems on TV or perhaps in a newspaper article. Some of us learned about them at one time or another in our formal mathematics studies. What exactly do these equations mean? Well, they deal with different forces at work, action and reaction, and various laws of physics we interact with on a daily basis. One of these equations applies directly to you whenever you are driving a car and strike an object - do you know which one? If you guessed  $KE = 1/2mV^2$ , you guessed correctly. This equation stands for "Kinetic Energy Equals One Half of the Mass Times the Velocity Squared." Now that you've had your math lesson for the week, you are probably thinking what I often thought when sitting in a math class, "Why am

I here? I will never use this junk in real life." Well, the truth is, this equation does apply in real life! Every time you get behind the wheel of a car and go for a short drive this equation applies to you and your vehicle.

 $\mathbf{E} = \mathbf{M}\mathbf{C}^2$ 

Let's look at exactly what this equation means to you. Suppose your car is traveling at 55 miles per hour (MPH). Suddenly, a 250 pound deer jumps out of a ditch and dashes in front of your car. Since the deer appeared out of nowhere, you don't have time to avoid the collision. Did you know that at the point of impact over 325,000 foot pounds of force are at work? That is why a deer can do tremendous damage to a car! Furthermore, that same KE = 1/ $2mV^2$  can apply to you while you are in a moving vehicle. Let's add two more variables into this equation: the lack of a restraining device and your car just misses that deer and hits a guard rail instead. These interesting little variables will let you know exactly what that deer would have experienced...as your rib cage is crushed by the steering wheel, your knees buckle against the lower console, and your head impacts the windshield.

 $\mathbf{PE} = \mathbf{Wh}$ 

Those of you, like me, who have been in an automobile accident while wearing a seatbelt, know just how painful a "seatbelt bruise" can be. It took my bruise several weeks to heal, and my car was only traveling at 30 MPH. So what is the bottom line about this mathematical equation? Well, it is quite simple; nature has many laws, and  $KE = 1/2mV^2$ is one of them. So do what you can to protect yourself. Wear your seatbelt; be leery and watchful whenever you are driving through a "deer crossing" area. No matter what time of the year it is - slow down just a bit. Always be mentally prepared for what could happen, and hopefully you will never be one of those people who require a hunting license just so you can drive your car.

Colonel Terry E. Paasch 419 LG/CC Hill AFB UT

### How To Wak Your Safety Pr

h boy, here we go, another article from an over-the-hill O-6 on how to fix your safety program. OK, maybe my ideas aren't the only way to breathe life into your safety program and they aren't new either; but I can say it worked back in '76. I make that claim to fame because the safety program at George AFB, in those days, was a real challenge. George was the home of 6, count 'em, 6 fighter squadrons. It was one of the early "composite" wings since we had a mixture of F-105F and F-105G Wild Weasels, F-4C Wild Weasels, 3 "TAC" squadrons of F-4Ds and Es and finally a German Air Force F-4F training squadron. It seemed like every available piece of concrete had an airplane parked on it.

Not only can I claim that we had no major mishaps during this time, but the aircrews (remember that all those jets had 2 cockpits) even paid attention at the monthly flight safety meetings! Not having a major mishap in a 3 year period at a busy place like George was really an accomplishment, but saying the aircrews paid attention is even more significant! I believe I can honestly say our wing safety office was the reason those things happened during that particular period of time. The people in that safety office all wanted to be successful and knew they had to go above and beyond the minimum to do that in our super-sized wing.

A lot of thought and team effort went into designing a special flight safety program. In my mind, the single most important part of that program was the monthly flight safety meeting, or more specifi-

cally, the way it was presented. We held one big meeting with all wing aircrews together, a major feat in itself; and we held it away from the work areas. We chose the O'Club because of the room (not because of anything else) and it worked great. Another thing that made our program different was the "Huntley-Brinkley" presentation style we used. We had both F-105 and F-4 programs and specialists in the same office and decided to combine all the different aspects of safety into one big program. Of course, the natural Thud-Phantom rivalry produced some added spice that perked up both "Huntley" and "Brinkley" as well as the audience. Finally, I firmly believe that the other major part of our successful program was pictures. That's right, both 35mm still and 8mm silent movie types (this was before video cameras). Remember the old saying about a picture being worth a thousand words - it's definitely true. We took pictures of everything and then put it together to fit with the "Huntley-Brinkley" briefing. We often used an actual aircraft part for show and tell and/or to emphasize a point. Today's video cameras will provide even more capability. If you're a computer expert, you might even use modern software to really give your presentation real space-age attention-getters.

Let me give you an example of how we made it work. One day we had a Thud (that's an F-105 for you youngsters) experience a nosewheel steering failure while taxiing out to the end of the runway for takeoff. Normally, this would have been no big deal; but he was rounding a long sweeping curve on

# ogram

the taxiway and was unable to stop before he ran the left main off the pavement. When we investigated the incident, it was pretty obvious the guy should have been able to stop before departing the pavement except he was simply taxiing too fast. You know how well most people accept criticism regarding things like taxi speed, so we simply sent the message in pictures. We showed a still shot of the Thud stuck in the sand, then switched to an 8mm shot taken from behind and above in a borrowed "cherry picker" from the civil engineers (I told you we went above and beyond). The 8mm pictures showed long black tire marks all the way around the curve, prior to the steering failure, obviously indicating excessive taxi speed. Sure, it got some laughs and the jock undoubtedly took some jabs from squadron maters, but the message was clearly understood by everyone in attendance.

What we ended up with was a lively program punctuated throughout with lots of pictures in a comfortable, non-threatening environment. It took some extra effort to take lots of pictures and then do some editing, plus preparing the "Huntley-Brinkley" briefing, but I'm convinced the combination was the right one. I don't think it is outdated and it could be used today in any safety program. With today's mini-cams and easy to use editing and special effects capability, you should have no problem putting on a first-class show. You can also copy still shots onto the video if you don't happen to get actual video footage of the subject. The secret is having cameras readily available for your safety specialists, people with the desire to



take lots of pictures, and then be willing to put them together into a safety program your audience (customer) would want to see. The bottom line requirement is to have people who want to put some imagination into their program. Giving dry briefings, reading messages in a monotone, or showing tons of view-graphs full of numbers rarely keeps anyone's attention or presents lasting safety lessons. Add some spice to your program by using a multi-media approach. It is not that difficult, and it pays big dividends because people will pay attention to your presentations and remember your message. This was a flight safety program, but the concept will work almost anywhere. Try it, you'll like it!

#### sat \* ire (n):

A usually topical literary composition holding up human or individual vices, folly, abuses, or short comings to censure by means of ridiclue, derision, burlesque, irony or other method with an intent to bring about improvement.

To ensure NO MISUNDER-STANDING, the following article is a satirical expose on weapons safety. It is offered solely for the purpose of preventing injury from tampering with explosive devices. In the past, factual, "how to," and technical articles have all addressed the danger of unauthorized handling of explosives. Still, people keep injuring themselves. Perhaps a new approach will be more successful.

-Ed.

### How To Do It

Capt Mark A. Martin HQ ACC/SEW Langley AFB VA (and the rest of the Explosives Safety Staff)

ecently two individuals were injured while trying to disarm a live 7.62mm blank cartridge by hitting the primer with a nail and hammer. I couldn't believe it! In fact, I was incredulous. How could this happen? Why did the 7.62mm cartridge explode when the nail struck the primer? How were both individuals injured by metal fragments? Despite my many years of experience in the AMMO arena, I can't, for the life of me, figure out what these folks did wrong! I mean, when they struck the primer with the nail, the cartridge case just exploded! I thought that was one way you disarmed small arms munitions. I guess they could have done it using the alternate method of disarming - a high speed drill through the side of the cartridge case. As long as they had a fire extinguisher available, they should have been OK! Don't you think?!!!?

I don't ever remember seeing anything that says you shouldn't try to disarm or demilitarize explosives, even if you're not an ammo troop, as long as you follow the buddy system and expose someone else to the potential hazard. I don't believe you need any special qualification to demilitarize an explosive item. Do you?!!!?

Any explosive operation is better when you have the most people possible involved at any particular time. You have to remember the cardinal rule of explosives safety — "Always involve the largest number of people, to the greatest quantity of explosives, for the longest possible time." Obviously, the idea is that involving more people reduces the chance for making a poor decision that could lead to a mishap. Am I wrong, or is it just me?!!!?

## (OR NOT DO IT) In AMMO !!

I work with Chief Thom Danihel, so I discussed these issues and some other items with him. He's got more time in AMMO than you can imagine, and if he says it's true, it's gotta be! He told me that the guys trying to disarm the 7.62mm round were involved in an illegal explosives operation. He said they absolutely should not have been doing what they were doing, the way they were doing it. There should have been two fire extinguishers present. He also told me that when you demilitarize anything today, you have to have a hazardous waste disposal permit. He also believes that I have the cardinal rule of explosives a bit backwards. He thinks it should be, "greatest number of people, to the largest quantity of explosives, and the amount of time is irrelevant."

While I was talking to the Chief, Master Sergeant Jim Aust, another co-worker and AMMO want-abe, overheard our conversation, and as always, had to give me his two bits. Now Jim hasn't been in explosives as long as the Chief, but he seems to know just about everything dealing with explosives safety. He said that in this case, two fire extinguishers wouldn't have made any difference. He also said that these two folks weren't trying to dispose of this cartridge, so the hazardous waste permit wasn't needed either. He said if these two people had had the proper training, they would have protected themselves from hazardous fragments by using safety goggles and kevlar flak jackets. These items are readily available at most base armories, and the Security Police are more than happy to loan them out for this type of operation. Jim also told me that the cardinal rule of

explosives was eliminated with the conversion to the new "AFI" system of regulations.

Not to be outdone by the senior AMMO types, Master Sergeant Neal Sipe, our junior AMMO type on the Safety staff, felt it necessary to provide us with his insight. Having just completed his first ACC Weapons Safety class at Dyess AFB, Neil had a full appreciation for explosives safety and felt we were way off base with our analysis. He felt that this problem would have been eliminated if they had properly sited the facility in the first place. Having that site plan approved by the Air Force Safety Agency and the Department of Defense Explosives Safety Board would have precluded the mishap. He felt that the approval process for the site plan would have identified any shortcomings like providing blast barriers to protect personnel and lightning protection to avoid accidental initiation of the explosives. He did agree with me in that he also didn't understand why hitting the primer of the ammunition round with a nail and hammer would have caused the round to explode in the first place.

With all the confusion caused by this discussion, I thought I should take this topic to my boss, Lt Col John Wysowski, the Chief of Weapons Safety. Surely, he would know the answer. (He asked me to quit calling him Shirley.) After he discussed all similar incidents with me that he could remember, we were well past dinnertime and my wife called to find out where I was. We never did get around to the real issue involving these two individuals, and he told me to go ahead and do an article for the magazine based on the collective wisdom of the Safety staff. The staff felt it was time to establish some rules for handling explosives. Here they are...

1. If it's **not** covered in technical data, it must be legal to do.

2. Personal Protective Equipment is for sissies.

3. Vehicles towing munitions are exempt from speed limits as long as their explosives placards are visible.

4. Always wear ear protection in case of inadvertent detonations.

5. Compatibility groups are only important when explosives are involved in a fire.

6. The best place for explosives holding areas is in close proximity to schools and hospitals. (Drivers are more cautious in these areas.)

7. Insensitive High Explosive (IHE) don't care who they hurt.

8. WARNINGS and CAUTIONS in technical data are for the inexperienced AMMO types.

9. Always ground yourself before handling static displays.

10. Checklists were designed small so that they could be kept in your pocket during explosives operations. ■

The preceding article was meant to provide HUMOR to the reader while at the same time, highlighting some of the ABSURD things people do or fail to do when handling explosives. Obviously, hitting a small arms primer with a nail is expected to have a certain outcome. <u>IT'S GOING TO EX-</u> <u>PLODE!!!!!</u> That's why operations like that are NOT allowed; people get hurt! We see these types of mishaps all the time, and we see



articles in the papers and magazines describing why they shouldn't be done. Yet, they still happen. The only thing I can figure is that people don't read the articles or they don't pay attention to what's said in the articles. I hope I changed that with this article, and I hope you enjoyed it and will give it some thought. Hopefully, our tongue-in-cheek treatment of this type of incident will keep someone else from tampering with an explosive device!





#### PILOT SAFETY AWARD OF DISTINCTION

Lt Col Thomas J. McKinley, 347 FW, Moody AFB GA

Shortly after touchdown, Lt Col McKinley's F-16C began to drift sharply to the right and settle abnormally on the right side. Attempts to correct the aircraft's alignment and attitude were ineffective. With runway departure imminent, he immediately selected full afterburner and initiated a go around. Despite limited night visual cues, Lt Col McKinley skillfully lifted the aircraft airborne as it crossed the runway edge at a 20 degree angle off. Still uncertain what was wrong with the jet, he declared an emergency and contacted the Supervisor of Flying. A chase F-16 joined, and using limited visibility from the strobe light, confirmed the gear appeared down, agreeing with the cockpit indications. Unfortunately, that meant Lt Col McKinley still did not know what was wrong with the aircraft. He set up for another landing, prepared to take the approach end cable if the aircraft again settled abnormally. The second landing attempt was uneventful. Post flight inspection revealed the right main landing gear had retracted on landing, causing the aircraft to drag the ground on the right ventral fin, right stabilizer, ECM pod, and SUU-20. According to the manufacturer's representative, the aircraft would likely have ground looped had he continued the landing roll, resulting in possible death or serious injury, and certain destruction of the aircraft. Lt Col McKinley's split-second decision to go around saved a valuable ACC combat aircraft and probably his life.

#### AIRCREW SAFETY AWARD OF DISTINCTION

Capt John Coffindaffer, Capt Steven W. Kelly, Capt Gary L. Hurwitz, MSgt Wiley Mayfield, TSgt Greg Lowdermilk, SSgt Greg Hehir, SrA Dave Riddell 41 RQS, 1 FW, Patrick AFB FL

The 41st and 71st Rescue Squadrons were notified by the USCG Station Mayport of an injured seaman aboard the 67 foot fishing vessel St Elmo, located approximately 200 nautical miles due east of Patrick AFB FL. The injured fisherman, a 39 year old male, had fallen from the roof of the wheel house onto a metal rail thus fracturing several ribs, puncturing his lung, and seriously injuring his back. The vessel had a ruptured fuel line and no longer had the fuel to make it back to the Florida coast. The crew of Air Force Rescue 811 (HH-3E helicopter) quickly organized and planned their mission and departed Patrick AFB for the St Elmo. In an outstanding effort, the crew was able to cope

with an emergency situation on the helicopter's hoist system, and then improvised an alternate method for the recovery of the survivor. They responded, in a cool and professional manner, to an engine compressor stall during the critical stage of takeoff from a 40 foot water hoist. They also accomplished a successful, emergency helicopter single engine air refueling in order to extend the helicopter's fuel range and prevent a potential ditching situation. If not for the gallant efforts and teamwork of the helicopter and HC-130 aircrews, the patient would not have lived from the injuries sustained during his fall.

#### CREW CHIEF EXCELLENCE AWARD

SSgt Joseph F. Kennelly, SSgt Shawn D. Crisco 145 CAMS, 145 AG, Charlotte NC



While performing refueling operations on a C-130B aircraft, Sergeants Kennelly and Crisco's quick actions helped to prevent a major aircraft fire. Just as the refueling of aircraft 638 was completed, both crew chiefs observed heavy, black smoke coming from the aircraft crew entrance door and overhead escape hatch. With the fuel truck still rolling up hose, and with a brand new C-130H3 parked next to aircraft 638, both Sergeant Kennelly and Crisco acted quickly to get the situation under control. First, after alerting the fuel truck driver to evacuate the area, Sergeant Crisco ran to the external power unit to get it turned off and began disconnecting the aircraft battery. Sergeant Kennelly flagged down the flightline expe-

#### FLIGHTLINE SAFETY AWARD OF DISTINCTION

diter to have him call the fire de-

partment, and with that accomplished, took a fire bottle to the crew entrance door to fight the fire. Once at the crew door, the two crew chiefs found that the source of the smoke was the auto pilot amplifier in an avionics bay under the galley; the unit was burning internally. With Sergeant Crisco manning the fire bottle, Sergeant Kennelly disconnected and removed the amplifier from the aircraft. By the time the fire department arrived on scene, all aircraft power had been removed, along with the offending auto pilot amplifier, Sergeants Kennelly and Crisco were manning the fire bottle and other maintenance personnel had the C-130H3 ready to tow.



SSgt Bobby J. Marshall, 77 FS, 20 FW, Shaw AFB SC

Sergeant Marshall, attending the last day of the GE 129 engine run certification class, was performing ground crew duties while his classmate was performing the first engine run with the instructor in the aircraft cockpit. All pre-engine-run inspections were accomplished and everyone was ready for an engine start. The run man lowered the canopy, the locking cams cycled closed and the canopy lock handle was lowered to the locked position. The run man noticed something was wrong with the canopy lock handle and tried to open it but the handle would not disengage. The run man started yelling that he smelled fumes and smoke in the cockpit. Sergeant Marshall ran to the wheel well and disconnected the aircraft battery to stop the motor from burning up. He directed the test cell personnel to call the fire department, then attempted to unlock the canopy manually but the entire system was jammed. The run man and instructor were extremely upset and their eyes were burning to the point that they were discussing jettisoning the canopy. Sergeant Marshall instructed them to go to 100 percent oxygen and breath through the oxygen hose and under no circumstances jettison the canopy in the hush house. The fire department arrived and unlocked the handle with a special tool that fits through the cockpit access hole, and raised the canopy manually. Sergeant Marshall suggested that an emergency canopy unlock kit be fabricated and displayed in each hush house and other shops including Egress. He also submitted new emergency procedures for smoke and fumes in the cockpit.

# KNOW SAFETY... NO PAIN

I am the enemy and I'm more powerful than the combined armies of the world.

I have destroyed more men than all the wars of all nations. I massacre thousands of people every year. I am more deadly than bullets and I have wrecked more homes than the mightiest of guns.

In the U.S. alone, I steal more than 500 million dollars every year. I spare no one and I find my victims among rich and poor alike, the young and old, and the strong and weak.

Widows know me to their everlasting sorrow.

I loom up in such proportions that I cast my shadow over every field of labor.

I lurk in unseen places and do most of my work silently. You are warned against me, yet you heed me not. I am relentless, merciless and cruel.

I am everywhere -- in the home, on the streets, in the factory, at railroad crossings, on land, in the air, and on the sea. I bring sickness, degradation and death; yet few seek me out to destroy me. I crush; I maim; I will give you nothing and rob you of all you have.

I am your worst enemy -- I AM CARELESSNESS

Author Unknown

# NO SAFETY... KNOW PAIN

Provided by Mr. Tim Edwards & MSgt Larry Stulz



#### GROUND SAFETY INDIVIDUAL AWARD OF DISTINCTION

SrA Charles C. Lapolt, SrA Chad L. Shabram, SrA Rolv O. Ihle 27 CRS, 27 FW, Cannon AFB NM

Senior Airmen Lapolt and Shabram were relaxing in room 210 of dorm 1245. Around eight o-clock, they both thought they heard a smoke detector alarm in the adjoining room 212. At this time, Senior Airman Ihle, another dorm resident, came over to room 210 and said he could smell smoke. Further investigation by the three airmen revealed the lights in room 212 were flickering and then went out completely. Airmen Shabram and Lapolt went into room 212 to find the cause of the burning smell, while Airman Ihle went after a flashlight. Airman Shabram discovered the burning smell was coming from the bathroom that adjoins rooms 210 and 212. With Airman Lapolt behind him, Airman Shabram opened the bathroom door and found that the bathroom ceiling was on fire around the exhaust fan and lights. Airmen Lapolt and Ihle immediately ran for the fire extinguisher in the hallway, while Airman Shabram went into room 210 and called the 911 dispatcher. Both Airmen Lapolt and Ihle extinguished the fire with the dry chemical extinguisher from the hallway and then vacated the immediate area. Acting on instructions from the 911 dispatcher, the three airmen pulled the alarm box in the hallway and evacuated the building. When the fire fighters arrived at the dorm, the three airmen directed them to the scene and stayed in the area giving statements to the Security Police. Airmen Shabram, Lapolt and Ihle acted promptly and with cool heads in a potentially hazardous situation.

#### WEAPONS SAFETY AWARD OF DISTINCTION

#### SSgt Joseph Bodollo IV, SSgt Paul K. Pemberton, 59 FS, 33 FW, Eglin AFB FL

This morning would begin much like any other day for Sergeants Bodollo and Pemberton, or so they thought. They were assigned the daily task of performing weapons system preflight inspections on all aircraft scheduled to fly that day. Sergeant Bodollo was inspecting the AIM-7 missile that was loaded on station 7 when he detected something out of the ordinary. He discovered that one of station 7's umbilical connectors was incorrectly positioned. Normally, one of the connectors is positioned down while the other is positioned up. In this case, both umbilical connectors were in the down position. Sergeant Bodollo made

several attempts to reposition the connector, but it was no use. The connector for the AIM-7 was stuck in the missile's electrical receptacle. He called Sergeant Pemberton to the scene to see if he could free the stuck connector. Sergeant Pemberton evaluated the problem and discovered that the missile launcher's forward hook was not fully locked onto the missile's forward lug. Recognizing the potentially catastrophic situation, Sergeants Bodollo and Pemberton removed the missile from the aircraft. An inspection of the launcher revealed that the forward swedging mechanism was out of adjustment causing the missile's forward lug to not fully seat in the launcher's hook. If this discrepancy had gone undetected, the missile's lug would have pulled out of the launcher's hook during flight and allowed the missile to inadvertently separate from the aircraft.





#### UNIT SAFETY AWARD OF DISTINCTION

93d Transportation Squadron, 93 BW, Castle AFB CA

The 93d Transportation Squadron has had no reportable mishaps since 1992 and has steadily improved their safety performance in non-reportable mishaps, both on- and offduty, over that time. With no change in manning, they experienced 19 first aid onduty injuries in fiscal year 1992, 11 in 1993, and only one so far in 1994. Off-duty, they experienced 19 first aid injuries in fiscal year 1992, 20 in 1993, but only seven half way through 1994. These lower numbers of mishaps are a result of a very pro-active safety program.

An active ongoing mission of flying during the base closure has the potential for increased mishaps, yet they meet the challenge daily in safety. They logged 1542 air crew runs and 202 taxi runs last quarter without a single mishap, always providing safe, timely transportation to each and every Team Castle member. During transfers of equipment, they have successfully moved four 10-ton tractors to Nellis AFB and two R-11 refuelers to Point Magu over California's busy highways without mishap. In vehicle maintenance, they performed maintenance on over 775 vehicles without any mishaps, a tribute to their safety consciousness in a heavy industrial area.

Their "safety first" attitude at all levels has helped build a culture of safety in the Transportation Squadron and has spread through Castle AFB.

#### DANGEROUS FIREPLACE

You probably think I'm 6 months out of sync; but now that the winter months are over, it's time to check your fireplace and chimney. Fireplaces and chimneys should be checked for cracked bricks and missing mortar. After a winter of hard use, have them checked now — before you forget. However, this should be done by a professional chimney sweep. If you have ever seen a chimney fire, it will make a believer out of you. It can equal the effect of a blow torch and reach hundreds of degrees Fahrenheit. By penetrating the bricks and mortar, a chimney fire spreads to the adjacent woodwork. What causes a chimney fire? The answer - creosote builds up over time because of incomplete combustion from burning various kinds of wood in the fireplace, especially pine. Periodic cleaning will remove the built up creosote. Annual cleaning is recommended; however, a cleaning every two years is essential to prevent a fire. It is your home and you must protect it. - it's your choice.





#### Mandatory Eye Protection for Racquetball

TSgt Arthur W. Davis, 5 BW/SEG, Minot AFB ND

t present, the requirements for using protective eye wear while playing racquetball on Air Force installations are contained in AFR 215-49 (Air Force Morale, Welfare, and Recreation (MWR) Safety Program), para 4-11. However, the regulation offers only general guidelines with no specific type of protective devices recommended. Consider it your goal to establish minimum allowable standards for protective eye wear that all players must use while playing racquetball on your installation. You could save someone from a serious eye injury.

In the United States, it is estimated that over 100,000 injuries occur each year from racquet sports, and over 4,000 of these are eye injuries. An essential part of providing eye safety is ensuring that the people responsible for the health and safety of athletes — physicians, trainers, coaches, recreation staff members — are fully informed.

In the United States, the American Society for Testing and Materials (ASTM) is the ruling body that sets eye guard standards. Manufacturers who wish ASTM approval in the US must have their eye guards tested to those standards in an independent laboratory. Eye guards are not much more than cosmetic protection if they disintegrate under low impact conditions. Not only must eye guards withstand the high impact of a ball or racquet, they must pass optical tests. Eye guards that distort light or perception do not receive approval. In recent studies, researchers clocked racquetballs at 127 miles per hour. Imagine your eyes lying squarely in the path of one of those speeding missiles. The consequences could be devastating. The National Society to Prevent Blindness warns that regular prescription glasses, both lenses and frames, are not designed to withstand the forces encountered in sports activities. If regular glasses are struck with sufficient impact, they can, and do, break. Contact lenses offer no protection. Equally useless are eye guards without lenses, which only provide a false sense of security. A ball traveling at far below the fastest speeds can penetrate the frame and hit the eye full force. Balls are not the only weapons in racquet sports. Racquets have been timed at speeds up to 90 miles an hour and cause 40 percent of eye injuries in racquet sports.

At our installation we abide by the rules of the American Amateur Racquetball Association (AARA) during tournament play. Rule 2.5(a) AP-PAREL states in part: Lensed eye wear designed for racquet sports is required apparel for all players. The protective eye wear must be worn as designed and may not be altered. Players who require corrective eye wear also must wear lensed eye wear designed for racquet sports. Failure to wear protective eye wear will result in a technical foul, and the player will be charged with a time-out to secure eye wear. The only types of eye protection now recommended for sports are those with both the lenses (including corrective prescription lenses) and frames made of polycarbonate plastics, or molded onepiece protectors also made of polycarbonate material. Plano goggle-type protectors that pass ASTM F803 and fit over street wear eyeglasses are available.

There are three major reasons to consider only approved eye wear. The most obvious is safety. If the eye guard has passed rigorous standards, it will give you maximum protection. The second reason is commitment. Manufacturers who go to the expense of certification are committed to providing their customers with a quality product. Third, the AARA rules require lensed eye wear at all of their sanctioned events.

We recommend you consider adopting the following rule for both tournament and casual play: Only lensed eye wear manufactured specifically for racquet sports and approved by the ASTM and AARA will be authorized for wear while playing racquetball.

# Accordes

QUESTIONS OR COMMENTS CONCERNING DATA ON THIS												
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\* (HOURS NOT AVAILABLE)



"Harlow 2 spike, left 7." "Harlow check 30 left, l's naked." "Harlow 2 break left [chaff/flares] bandit left 8, 20 high, 2 miles." [As the bandit switches at the wrong time] "Harlow 1 Fox 2 kill, separate East." Maybe that bandit will learn from his mistake and switch at the correct time (or not at all).

Break, break. Another day, another switch... Ground ops, base X. We've had several Emergency Power Unit (EPU) activations due to pilots turning the Main Power Switch (MPS) to OFF when they were actually trying to turn the Electronic Counter Measures (ECM) switch to OFF. Sometimes we're fortunate enough to have the crew chief or EOR crew away from the EPU exhaust port. Sometimes not. One base had at least three instances of inadvertent EPU activations due to switch errors. When did it happen? One incident occurred during the after landing check in dearm. The second instance occurred while airborne. The third instance occurred on the ground while taxiing from dearm to parking, resulting in a complete loss of brakes and nosewheel steering. The pilot narrowly avoided crashing into a row of parked F-16s by realizing his mistake and turning the MPS back to Main Power. No one filed a High Accident Potential (HAP) report, so the Viper community's awareness of this threat was not raised. A very short time later at another base a Viper driver was entering the parking area when he, contrary to his normal habit pattern, wanted to go cold mike while moving in a congested area. Instead of going cold mike, the mishap pilot rapidly went from Main Power to OFF. Initially he was happy. He wanted the breathing in his helmet to stop, and with the MPS in OFF the breathing stopped. The trouble was so did his ability to stop the jet. Probably few people outside the engineering community realize that if you go from Main Power to OFF without a nominal 1 second delay in BATT, the EPU does not activate; so you lose your brakes and nosewheel steering; you still have thrust but no vector.

Why did these instances happen? Ergonomics? In the Block 40/50 F-16 the MPS and the ECM switch are only 1.3 inches apart, identical in shape and size, and move in the same direction when



being activated ON and OFF. That can be a problem. But the latest incident cited above was a Block 25. What are the common threads between these incidents? The MPS has been involved in all of them. We are looking at several hardware options to help differentiate between the MPS and other switches, but in today's tight budget the modification will have to be very inexpensive. But the MPS has NOT been the only culprit in switch mishaps. Not too long ago a Viper driver had just completed air refueling. He reached over to close the AR door. Shortly after throwing a switch the engine flamed out. He attempted to restart the engine without success. Fortunately, he completed an "uneventful" flameout approach and landing to a nearby field. To his surprise the guarded FUEL MASTER switch was found in the OFF position; the square-topped AIR REFUEL switch was still in the AIR REFUEL position! Another pilot was on

his first sortie in Central Europe. After climbing out on the wing through weather layered to FL200 and leveling at FL250, the pilot wanted to adjust the cockpit temperature. Instead of turning the Environmental Control System (ECS) Temperature knob cooler, he went from NORM to OFF on the Air Source knob (both knobs are the same size rheostats, activate the same way and are side-byside). Result: rapid decompression and a chance for Dracula at the hospital to draw some blood. The common thread throughout all of these MPS, ECM, Cold Mike, ECS and AR switch incidents (in order to fix) involves a basic habit we all learned back in UPT: if you are going to throw a switch, ID that you have the correct one before you do it! That option doesn't cost any money, it makes sense and you can implement it on your next sortie. Air-toair bandit switches and cockpit switches: there's a right way and a right time to do it!

#### THE NUMBER ONE KILLER OF TEENAGERS IS DRUNK DRIVING

Reprinted with permission from the National Crime Prevention Council and the Virginia State Police.

he number one killer of teenagers is drunk driving. More than 3,500 teens are killed and another 85,000 injured each year in car crashes involving alcohol. Not all have been drinking; some are passengers or innocent targets of people who drink and drive. Someone in the United States is killed in an alcohol related traffic accident every 23 minutes. That someone could be your best friend. It could be you!

#### SOME FACTS ABOUT ALCO-HOL

A can of beer or a glass of wine or a wine cooler is just as intoxicating as a shot of liquor. Most state laws define "drunk" as having a Blood Alcohol Concentration (BAC) of 0.10%. But people react to alcohol differently depending on how recently they have eaten, their metabolism, how tired they are, the medication they take, their emotional state, and their weight.

Because of these differences, no one can predict a "safe" number of drinks. The bottom line is that alcohol is a depressant. Even small amounts slow your physical reactions and thought processes.

#### ALCOHOL AND OTHER DRUGS

Combining alcohol and other drugs, even over-the-counter ones, multiplies the dangerous effects of both. Never mix alcohol with any drug, even cold tablets. cough syrups, or medicine prescribed by your doctor.

#### DRUNK DRIVING AND THE LAW

Drunk driving is against the law in all states. If you are arrested as a DWI or DUI (Driving While Intoxicated or Driving Under the Influence), you can lose your license, be fined, or go to prison. Don't expect to get off just because you are under 18. Most courts today can try 16- and 17year-olds as adults in cases where death or severe injury has occurred. If you cause an accident while driving (and the chances are much higher if you've been drinking), your insurance company can increase your rates or cancel your policy. If you are under 21, it's illegal for you to purchase alcohol or a drink anyplace!

#### IS IT WORTH TAKING THE CHANCE?

No one wants to live with the fact that he or she caused an accident, injured someone, or took a life. If you drink and drive, you are taking that gamble. Don't let your friends take that risk either. If people you know have been drinking, try to stop them from driving — arrange a ride, call a cab or a friend, or see that they stay put. If these actions don't work, don't ride with them.

#### HOW MUCH DO YOU KNOW ABOUT DRINKING AND DRIVING?

#### TRUE or FALSE?

1. If a person concentrates hard enough, he or she can overcome any effect that drinking has on driving.

2. If you have been drinking at a party, coffee will sober you up quickly before you leave.

3. If you drive home from a party late at night when the roads are deserted, there's not much danger in driving after drinking.

4. It's okay for a person who has been drinking to drive, as long as he or she doesn't act drunk.

5. A drink or two helps people drive better because it relaxes them.

If you answered "true" to any of these questions, you are only fooling yourself. All these statements are false. Be smart. Don't drink and drive.

#### TEENS CAN HELP EACH OTHER

\* Be smarter and safer by organizing buses, carpools, or limousines for outings and parties.

\* If you are out with a group of friends, be sure to have a "designated driver," someone who pledges not to drink at all. If you or someone else makes one mistake — illegal drinking — don't compound it with a second mistake — driving under the influence.

#### **BEFORE YOU DRINK... GET THE FACTS**

In today's changing and challenging Air Force, we are required to be aware of numerous things, such as changes in rank insignia, patches, major commands, uniforms and Air Force Specialty Codes to name just a few. One important factor we must be mindful of is how we cope with the never ending challenges. Some individuals choose to use alcohol as an escape, or temporary reprieve, from the reality or the stress of keeping up with our changing environment.

Is it OK to use alcohol as a release from life's stresses? Only you will be able to answer that question. The most important thing is that you're aware of how much you drink and possible consequences if you over indulge.

For people who aren't 21 years of age, the consequence that you need to be aware of is that you can't legally drink until you turn 21. You're probably saying that it's not fair that you can't drink; however, you need to ask yourself if you're ready to pay the consequences involved if you do.

What are some of the consequences? Correctional custody, Article 15, unfavorable information file, being placed on a control roster and possible separation. Imagine what it would be like to call your parents to tell them that you are being discharged because you couldn't wait until you were 21 to drink.

Today's Quality Air Force requires commanders and supervisors to carefully scrutinize who will be allowed to remain in the military. If the choice is between someone who has a clean record and someone who has been arrested for drinking under the legal age, who would you retain?

For people who are of age, what do you need to be aware of with alcohol consumption? Well for starter's, why do you drink? Do you drink for relaxation, or to get drunk? Can you have a good time without drinking? Is there someone in your life who has asked you to stop drinking or to cut down? Do you have a history of alcoholism in your family? If you do, you are more prone to become an alcoholic if you drink.

When you are going out to a social function, do you designate someone to be the designated driver?

All these factors play a role in whether or not you are aware of what role alcohol plays in your life. We all have a big price to pay if we aren't aware of how we, as individuals, cope with the challenges placed upon us. It could cost us our careers or worse yet our lives. If you have concerns or questions about your alcohol consumption or someone else's, please call your local substance abuse office.

TSgt Mina Esteves, Langley Social Actions Office, Langley AFB VA

\* Get parents to sign pledges that they will not serve beer or liquor to teens in their homes.

\* Ask a teenager who has been involved in an alcohol-related accident to speak to your club, group, or school assembly about its consequences.

\* Suggest that parents, teachers, or other responsible adults run a hotline on party nights. If teenagers have trouble getting to or from the party or outing or are riding with someone who's been drinking, they can call for a safe ride with no questions asked.

\* When you're old enough to buy beer, wine, and liquor, don't buy it for younger people. You're not doing them any favors. It's illegal, and you could get a criminal record.

#### WHAT IS BEING DONE?

Many groups like SADD (Students Against Driving Drunk) and MADD (Mothers Against Drunk Driving) have organized to fight drunk driving. They lobby Congress and state legislatures for stiffer penalties for drunk drivers and organize alcohol and drugfree prom and graduation parties. They also operate hotlines to help teens and young adults who think they may have a drinking problem.

Many schools, in cooperation with law enforcement agencies, have started programs to make students aware of the dangers of drunk driving. They often get the message across with slides showing accidents and with speakers who have been hurt in drunk driving accidents. Some schools have programs that allow any student who feels he or she shouldn't be driving to call for a ride, with no questions asked.

These local and national efforts

have played significant roles in raising teens' awareness of the drunk driving issue and in decreasing the number of traffic accidents involving teenagers.

#### SUCCESS SAVES LIVES

The U.S. Department of Transportation estimates that tens of thousands of lives were saved in the 1980s by preventing drunk driving accidents. It happened because local groups like chapters of SADD and MADD were educating teens about drunk driving. It also happened because of heightened public awareness, citizen action, and stricter laws in almost all states, including raising the drinking age to 21, which resulted in saving 10,000 lives.

Although the picture is brighter than in the '80s, there is much more to be done. We can save many more lives in the 1990s.



In an effort to respond to you, our readers, we've initiated "To The Point" as part of *The Combat Edge*. This is your forum for commenting on the content of past and present magazines, or what you'd like to see in the future. We will periodically publish "To The Point" as the volume of correspondence dictates. Letters may be condensed to fit our available space. If we can't publish all of the letters, we'll use representative views. In addition, we'll withhold your name if you desire. We'd like to hear from you — good or bad. Please send your cards or letters to:

#### Editor, *The Combat Edge* HQ ACC/SEP, 130 Andrews St Ste 301 Langley AFB VA 23665-2786.

If you'd like, you can fax your comments to us at (804) 764-6362 or DSN 574-6362.



#### **March** Cover

I have enjoyed reading your publication and quite often use information from the articles as I perform daily tasks. However, the moment I saw the cover of the March 1994 issue a large question mark loomed over my head. What is your intended message and what might be a hidden message?

The cover artwork is impressive and the power of the B-2 is evident. As a pilot, I could sense the exhilaration the aircraft commander must be feeling right now. But at the same time a voice in the back of my mind demanded to know why that airplane was in a canyon, dodging rocks and buzzing climbers. The depiction appears to violate good judgment and discipline, and perhaps flying regulations. I believe the cover perpetuates an old barnstormer, devil-may-care attitude which is no longer tenable in today's military. I could not help but wonder what might be going through the minds of younger, more impressionable aviators. Will one of them attempt to duplicate the artwork in real life? While I hope they do not, the mixed message on the cover remains. Please remember the power of visual images and possible hidden messages as you prepare future issues.

> Lt Col Horst A. Roehler Hill AFB UT

An extremely irresponsible cover on the March issue of "Combat Edge," and on the center pages. A B-2 low level through Yosemite - two rock climbers on El Captain and Half Dome clearly visible in the background. Is this the type of flight activity you want to encourage, illegal low level flight in a national park? There are enough violations of low level flight rules due to irresponsible pilots. Environmental groups, ranchers, and weekend tourists, a wide range of people are upset over authorized and unauthorized low level activity. A safety magazine should not encourage illegal flight activity by publishing a cover featuring low level flight in an easily identifiable park.

> Lt Col Charles D. Brown Beale AFB CA

I enjoyed the cover on the March 94 issue of The Combat Edge. Flying through Yosemite National Park low enough to rattle the rock climbers on El Capitan is obviously a very demanding mission requiring the utmost skill and a strong sense of safety and flight discipline. If you can tell us which syllabus rides in the B-2 program contain the National Park low level check-out, we will add appropriate sorties to our syllabus to adequately prepare our students for this obviously demanding mission. We have several canyons in the Sheppard area which, while not as dramatic as Yosemite, will provide a building block approach in the procedures and techniques required to safely blow hikers and rock climbers over the edge. We have ordered several dozen copies of the painting from Mr. Moore to frame and hang in the squadron so our students can develop the proper attitude towards mission accomplishment in the combat forces.

As a fighter pilot currently training future tactical pilots for ACC, I enjoy keeping up with ACC through various publications including The Combat Edge. It's good to see the ACC philosophy is getting back to the aggressive, devil-may-care attitude so prominent in our heritage. Keep up the good work!

WARNING: This document contains a detectable quantity of sarcasm and should be consumed with at least one grain of salt.

> Lt Col John E. McMurray, Jr. Sheppard AFB TX

Although the covers of your January and March magazine are beautiful paintings, I don't think they display the proper safety approach or ACC professionalism. Paintings or photos showing infractions of rules and regulations should not be highlighted on the command's safety magazine.

The "meat" of your magazine continues to be the best.

> Lt Col Jim Boehm APO AE 09894

Thank you for your interest in our publication and your concern about the March 1994 cover. It was certainly not our intent to encourage illegal low level flight in a national park. We did not mean to portray an aggressive, devil-may-care attitude nor depict, overtly or otherwise, violations of good judgment, discipline or flying regulations. Our ONLY intention was to share a striking and impressive piece of art with our readers.

As professional publishers and artists, we sometimes use pictures and art to impart messages; and at other times we use them purely for aesthetics. In the future, we will more closely scrutinize all of the art and pictures we use. If there is any question about conflicting, or improper messages, we will take the necessary steps to resolve the conflict or not use the material.

-Ed.

#### **ACColades Error**

I'm dropping you this note to inform you the Mar 94 issue of The Combat Edge has an error in it. THE ACColades HONOR ROLL states the 7 WG has been Class A mishap free since 1 June 92. This is incorrect. Sometime in November 1992 a B-1B crashed during low level flight operations in IR 165. This was a Dyess aircraft.... Although the 7 WG at Dyess was the 96th during this time period, the HONOR ROLL is still referring to Dyess AFB. The 7th was at Carswell during this time frame, but it was a BW. This needs to be clarified. There is no need to recognize an organization if they are not deserving.

> Maj Ed Walsh Barksdale AFB LA

You're absolutely correct. Guess I missed this one. In this case, we should have considered the 96 WG as part of the 7 WG record, i.e., they should not have made the roll. We have removed them from the HONOR ROLL. Thank you for your interest and for keeping us straight.

-Ed.

#### Miscount

I read the May edition of The Combat Edge. I liked it but found one mistake. On the back, only 99 days are in red. You forgot Memorial Day weekend.

Russell Quintero Omaha NE

Thank you for your interest and complement about our magazine. You're absolutely right about the 99 days outlined in red on the May back cover. We apologize for the oversight. While Memorial Day actually starts the program, we start counting (days and statistics) from the beginning of the Memorial Day weekend. The 28th and 29th of May should have also been highlighted in red.

Thank you for correcting our mistake. Please understand the message of the 101 Critical Days program be careful and look out for one another during the summer season. Have a safe and enjoyable summer.

-Ed.

#### **Information Please**

Could you kindly provide some information on the plane depicted in the March 1994 issue of your magazine (pg. 18)? The artwork on the side of the plane looks somewhat like that used here in one of the units at Selfridge ANGB. I am the Wing Historian for the 127th Fighter Wing and would greatly appreciate any information about that picture you may be able to provide.

> SSgt Joseph R. Coppola Selfridge ANGB MI

The photo in question (which came from our files) is stamped on the back: PHOTOGRAPH FROM OUR NEGA-TIVE NUMBER \_\_\_\_\_, Courtesy of BELL AIRCRAFT CORPORATION, BUFFALO NEW YORK. Written below that is P-39, 1941, 31st Pursuit Group, Selfridge Field, Michigan. Hope this helps.

-Ed.

### More Than Paper Cuts

MSgt Gary Reniker 442 FW/SEW Richards-Gebaur AFB MO

hen someone mentions office safety, many of us may brush it off as involving nothing more serious than an occasional paper cut. Actually, there are many more potential dangers in the office than you may realize. And often, it's precisely because employees let their guard down when working in an office, whether full-time or occasionally passing through, that many accidents happen.

I can personally tell you of one such accident that happened to me (safety office worker for 20 years) in my rush to answer a telephone in my office. In my dash to get to the phone I slipped on a puddle of coffee spilled on the linoleum floor and found myself sailing across the room. The next thing I remember is looking up and seeing a concerned administrative assistant standing over me. Fortunately, I escaped any serious injury except for a large bump on my head, sore back muscles for a week, and a lot of damaged safety pride.

This lesson taught me that you must keep up a focused and alert attitude in the office by always looking out for situations that could cause a mishap. Some potential consequences of inattention are:

\* Slips. A newly waxed floor, a loose mat or tile, spilled liquids, snow, ice, or even a writing pen can all cause slips. The best prevention is to immediately pick up or clean up anything that drops on the floor. Also look for wet or slippery spots, and maintain a slow and careful pace when walking through the office.

\* Trips. It's easy to get involved in reading a document or daydreaming while walking through an office. But it's important to keep your mind and eyes on where you're going. An open drawer, a temporary extension cord, telephone wires, or boxes can all trip you. To protect yourself against the

chances of an accident, close drawers when they are not being used, and keep loose cords, boxes, and wires out of the way of traffic.

\* Falls. No matter what height you fall from, landing can be an unpleasant experience. To avoid falls, use common sense. Never use a chair as a ladder, for example. Instead, find a stool or stepladder, or enlist the aid of a taller co-worker. When using stairs, pay attention, take one step at a time, and hold on to the handrail. Avoid tipping back in your chair. I've actually seen people who did not realize they had gone too far and found themselves on the floor.

In addition to the possibility of slipping, tripping, or falling in the office, there are other potential dangers, many of them involving office materials and machinery, such as...

\* Staples, staplers, scissors, pins, thumbtacks, letter openers, and other sharp objects. Reach into a drawer filled with any of these items and you may really get the point! To avoid injury, arrange these items as neatly as possible. Keep staplers, scissors, and letter openers where they're easy to see. Store staples, pins, thumbtacks, and other small objects in closed containers.

\* Filing cabinets. Cabinets can cause injuries by tipping over if leaned against or by toppling because too many drawers are open. Cabinets can also be unsafe when you store the heaviest items in the top drawer or use the low open drawer as a makeshift foot stool. To use filing cabinets safely, open drawers one at a time and only as far as necessary. File material in the bottom first to keep the cabinet from becoming top-heavy, and store heavy items only in the bottom drawer.

It's not just enough to know we should be alert for hazards in the office; we have to take the steps required to make it happen — to transition from "Think Safety" to "Live Safety." Capt Eddie Waters 38 RS/DOV Offut AFB NE

# Routine Flight Turns H H R R N W I N G

he first indication of trouble came when a crewmember in the mission compartment called the flight deck to report some flickering lights. Up until then, the flight had been a routine RC-135 redeployment from the Middle East to the United States. Airborne for slightly over 8 hours, we had just passed the mid-point of our North Atlantic crossing. As the crew commander flying in the left seat, I quickly rechecked the overhead panel for any signs of electrical difficulty. The number one generator load jumped up to an abnormally high level, then dropped back to normal limits. However, within 10 seconds all three aircraft generators dropped off line. We lost almost all electrical power! I quickly placed the battery switch to emergency providing some DC power to critical systems. Meanwhile the pilot, Capt Dubois, confirmed that his instruments had power from the back-up hydraulic powered generator. The aircraft commander's flight instruments, most engine instruments, all fuel quantity gauges, and all navigation instruments were inoperative. With initial actions complete and the aircraft safely under control, we evaluated our options. First, since this was a redeployment, we had additional crew members on board. A spare aircraft commander, Capt Peck occupied the jump seat. Capt Phipps, a spare navigator, occupied the auxiliary crewmember seat and assisted with celestial navigation. The nearest suitable emergency fields were on the Canadian coast, so we didn't need an immediate change of course. The navigators compared their manual track with the last known position from the computerized system. The tracks agreed closely. They were confident of the winds at the cruising altitude of 31,000 feet and noted good agreement with the forecast winds. They established a dead-reckoning track for the aircraft. Capt Peck referenced the aircraft tech data and assisted in trouble shooting the malfunction. The pilot team ensured that all non-essential equipment was off and unsuccessfully attempted to restore generator power. Within a few minutes, the number one generator overheat light illuminated and the generator constant speed drive had to be disconnected. A few minutes later, the overheat light again illuminated indicating an unsuccessful disconnect and potential fire. We shut down the number one engine in accordance with tech data guidance.

At this point we faced several problems. First, we had limited battery power. At the recommended level of equipment use, it would last for 1.5 hours. We had limited navigation capabilities and were dependent on a weather forecast that was more than 12 hours old. We had basic IFR instrumentation on the copilot's side of the cockpit, but we could only fly a ground radar directed approach. Also, we had no anti-ice protection and no windshield heat. Therefore, we needed to avoid flying in weather if at all possible. Our fuel load and distribution were critical. We had plenty of total fuel, but no fuel pumps. The main wing tanks would feed the engines by gravity feed. The body tank fuel pumps use hydraulic power, but the automatic shut-off system uses DC power and will not allow the pumps to operate without it. Thus, using body fuel would rapidly deplete our remaining battery power. So, we were limited to main wing fuel. The nearest airfields were three hours away. At high altitude, fuel would be adequate but with little margin for error or delay. We could use a radio, but needed to conserve it for the landing. The forecast for eastern Canada showed deteriorating conditions from an approaching storm. The nav team determined that the best option for navigation was dead-reckoning using forecast winds for estimating drift and latitude, while using instantaneous celestial shots to determine longitude. After landfall we would navigate visually to find the airfield or get within range of radar controllers. Considering the likely level of uncertainty in our position at landfall, we decided to use Goose Bay. If we chose Gander, we might pass to seaward of the field and never get within visual range. Goose Bay's geography was such that we could expect to make landfall and then follow the coast until locating the inlet to the bay, minimizing the chance of missing the airfield. The pilots informed the crew to use strict discipline with electrical equipment. We turned off all non-essential battery powered lights and used flashlights in the mission compartment. We avoided use of the hot mike system and strictly limited our interphone

communications. We took every possible step to conserve the battery.

En route to Goose Bay, we were off our cleared route and not in radio or radar contact. We used VFR hemispheric altitudes and emphasized the importance of clearing. We had to descend to remain clear of the clouds. The closer we got to the coast, the lower we had to fly, eventually reaching 10,500 feet with 20 mile visibility. The low altitude compounded our fuel problem. Estimating fuel consumption, Capt Dubois calculated available fuel to be equal to required fuel with no margin. The crew worked together to review our plans and possible contingencies. We informed everyone of our situation and passed out survival gear. We also reviewed procedures for crash landing or ditching.

At landfall, we turned south along the coast as planned, searching for the bay. The weather continued to worsen and we descended lower. Limited visibility, snow covered land, and white sea ice all blended together to make pilotage difficult. But, at 6,000 feet with 10 mile visibility we came upon an inlet that seemed to match the chart. I decided to turn inland following the bay. With the lead navigator positioned to visually survey the terrain, confidence in our position increased as we identified more landmarks. At 60 miles from the airfield, we made a distress call. A Canadian Forces C-130 answered and relayed our status to Goose Bay. The ground controller was able to get a directional bearing from our radio call, but we were still outside radar coverage. We had to descend to 2000 feet to stay clear of the weather, and the visibility dropped to 5 miles as it started to snow. Goose Bay reported worsening visibility due to snow. The radio crackled with static as the battery charge became low. Then, the number four engine rpm began to unwind. The only possible explanation was fuel starvation in the number four main tank. We had to use body tank fuel, which instantly restored the engine but increased the battery drain. At 30 miles, Goose Bay obtained radar contact and began issuing vectors for the approach. At this point, visual flight became impossible. Capt Dubois assumed aircraft control and I began configuring the aircraft for landing using speeds for the estimated weight. I set appropriate rudder trim for an engine-out approach. The remaining wing heaviness suggested a fuel imbalance, and the near flameout of the number four engine supported this conclusion. We gravity drained fuel from the number one tank to decrease the imbalance and dumped body fuel overboard to lighten the aircraft and adjust the CG. We sighted the airfield at three miles, and I took control for the landing.

At this point, the cause of the emergency is unknown. Each of the generators should be able to independently power the aircraft with reduced load. Circuits should prevent the loss of one generator from tripping the remaining generators off line. Teardown shows evidence of independent mechanical deficiencies in all three drive units. These are all fly-to-fail systems based on their redundancies. It's only speculation so far; but it appears that when generator one failed, the weakened remaining generators were unable to develop sufficient power and tripped off line. In the process, they damaged themselves to the point of complete failure. The odds of such an occurrence are remote, but all the elements came together on this flight. Luck played a part in our successful recovery of the jet. However, we helped ourselves immeasurably through solid crew resource management to determine the best options and implement a suitable plan under demanding, stressful conditions.

