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es, it's time to make our New Year's resolutions. You know what I mean. Yeah, those little promises we make to improve the way we act — lose some weight, quit smoking, or whatever. Just about everyone comes up with something that they would like to improve upon.

We all know how most of these resolutions go. We start off pretty strong on our newly established goals that aren't too hard to meet. So, we actually do floss at least twice a week, occasionally think nice thoughts about that grumpy boss we work for, and even shove back from the table before we take third helpings. This all goes really well for, oh ... say, the first month. Then, the container of floss drifts to the back of the medicine cabinet shelf where it joins the six others from previous years that all combined have dispensed less than four feet of the stuff. The nice thoughts about the boss last only as long as the boss's own resolution to be nice. Oh ... and the diet ... well, that lasts until opening that first half gallon of Rocky Road ice cream. Twenty minutes later, you're licking the last bits from the inside of the carton; awash in guilt, but smiling like an old fat cat.

If these sound too familiar, don't sweat it. I'm here to offer you a New Year's resolution you can *live* with. I know — 'cause unless you hold to it, I'm here to tell you that your odds of stayin' alive are going to end up trashed like your floss containers, good thoughts about your boss, and empty ice cream cartons. Besides, this resolution doesn't take giving up anything except a few brain cells and a couple nanoseconds of time. If you're like most folks, you don't use but one brain cell the majority of the time anyway; and the couple of nanoseconds you invest could pay off for years to come. So what am I getting at? Well, here it is — plain and simple:

Before you turn a key, press a starter switch, slide a throttle out of cutoff, or pull a trigger, just take a breath and listen. The first thing you should hear is your heart beating. Good! That should remind you that above all else, at the end of the day, you still want to be able to hear that sound! Second, listen for your conscience. If it's scared about the risk of not hearing that heartbeat, it'll speak up. That's your resolution — simply stated, "listen to your conscience." If your conscience is uncomfortable with what you're doing, 'quit right then and there; and do whatever it takes 'til the nagging stops. We'll both be glad you did!

Best wishes for the New Year — Fly, Drive, and Be Safe!

Colonel Turk Marshall Chief of Safety Lt Col Ezequiel Parrilla, Jr. HQ ACC/SEF Langley AFB VA

here we were, at the leading edge of the cold war. We had an early mission and had successfully completed three bomb runs on the bad guys, onloaded all the gas we needed, and got a nice landing at the end. As we walked out of the simulator building and headed to our alert truck, we decided to further defend our nation by accomplishing our daily BX run. It was a warmer morning than usual this January, with the temperature slated to rise to an almost bearable (with lots of clothing layers) 5 degrees BELOW zero. Yep, in another 5 months, I would be able to take my winter survival kit out of my car and not have to worry about making sure I had a full tank of gas before leaving the base.

As we continued on our mission, we saw some of the usual winter sights: people with their parkas buttoned up so there was only a small, periscope-like opening for their viewing pleasure; the occasional head over heels "holiday-on-ice" performance by someone trying to walk too fast over an unseen spot of ice; and even an adventurous driver who obviously had some sort of special radar on his vehicle ... since The toughest takeoffs and landings I have ever made were done during the coldest time of the year. Taking off practically sidewise in a Buff...

the side and rear windows were iced over and the front windshield only had a small ice-free area (you know, that periscope thing again). Even after three winters in the northern plains, I still had not gotten used to seeing cars plugged in or left running unoccupied in the parking lots.

As we approached the alert parking slot at the BX, the Tactical Aircrew Alerting Network (TAAN) radios crackled to life; and we heard that oh so familiar phrase, "FOR ALERT FORCE, ALERT FORCE FOR KLAXON - KLAXON -KLAXON." We promptly turned on the vehicle's "Out of the way, bomber crew coming through" klaxon and lights. Before our 2Lt copilot got too far on his Mario Andretti impersonation, I gently (no blood, no foul) reminded him that our response speed of "as fast as safety permits" and "pedal to the metal" were not the same thing this day. Posted speed limits were fast enough as we watched a vehicle slide to a stop about halfway into an upcoming intersection.

We safely arrived at the alert pad. Once we slowly (I'd heard of more than one crew dog landing on his tail in the process) got all the pitot covers and assorted paraphernalia out of the way, we entered our aerospace vehicle and I slid on my seat and put my helmet on. Have you ever had a dentist start drilling on your teeth before the novocain does its thing? If so, you know what I felt at that point — the only difference was the pain came from my left ear. I promptly let out a primal scream (it hurt too much for my brain to take the time to formulate any words) and removed my helmet, fully expecting a sea of blood to follow. To my amazement, there was no blood; the pain subsided to a gentle burning sensation and a check of the area showed I still had my ear in place and had no visible damage. I felt well enough to continue the task at hand (even though my brains were still in shock), so I decided to put on my headset (right earcup only, of course) and

proceed with the engine start — otherwise, freedom, liberty, and the American way of life would surely be threatened. Everything went well. The enemy hordes were repelled, we shut down our engines, and we started to get the aircraft ready for another response.

By this time, my buddy aircraft commander on the next parking spot had heard about my enlightening experience and came over to laugh at my expense. However, after one quick look, he said, "That ear is swelled up pretty bad ... you'd better go to the hospital." He also added some comment about my getting frostbite in the ear ... and the brains. The copilot promptly gave me an "I told you so type of look" while rubbing the side of his head, but said nothing. On my way to the emergency room, I grabbed my helmet and saw that the protective foam over the metal speaker had moved; and the very cold metal had obviously made contact with my until-thenwarm ear. My ear did not suffer any lasting damage, although I looked a bit like Mr. Spock for a

couple of days. However, I paid more attention to our life support guys any time they talked about not using helmet bags to stuff in extraneous material such as flashlights, checklists, and assorted reading material.

By the time this issue of The Combat Edge comes out, Old Man Winter will be close to his prime days. With the "El Niño" weather pattern returning, rumors are that this may be a particularly interesting winter. The effects of cold weather can turn a minor mistake into a serious - maybe even life-threatening - one. The Boy Scout motto of "Be Prepared" gains a lot of significance this time of the year. This goes from everyday basics such as having a winter survival kit in your car to dressing warm for a flight even though you are taking off from a not-so-cold environment. Of course, you are not going to have to eject today; but then again, the crewmembers that had to eject in a freezing cold, wet environment did not expect to either. In addithe cold. the tion to unpredictability of winter flying operations, coupled with low visibility and other things, can really ruin your day. The toughest takeoffs and landings I have ever made were done during the coldest time of the year. Taking off practically sidewise in a Buff with almost full crosswind crab with snow falling and Runway Condition Reading (RCR) just above minimums is one of those things you remember for a while. The feeling of accomplishment you get when you clear the runway after flying an instrument approach to minimums is one you'll only get if you prepare yourself well before you run the descent checklist. FLY SAFE!



Mr. Will Evans, Loss Control Coordinator Markel Insurance Company Glen Allen VA

s little fun as vehicle collisions are, there ought to be less of them. Consider the personal aspects of a vehicle collision: possible injuries or death to yourself or family members, expenses of insurance deductibles and increased insurance rates, time and hassle of vehicle repairs, and possible personal time in court or before your commanding officer. Even if no one is injured in a vehicle collision, the out-of-pocket expenses will probably force you to modify your budget for several months or longer. What is tragic about this is that most vehicle collisions are almost always preventable. There are six areas that you can take an active role in reducing the potential for collisions and some of the higher expenses associated with a collision.

There are six areas that you can take an active role in reducing the potential for collisions and some of the higher expenses associated with a collision.

Vehicle Selection

One of the simplest and best risk management practices is to call the Insurance Institute for Highway Safety/Highway Loss Data Institute at (703) 247-1500 or 1600 and ask for three items: (1) Crash Worthiness Evaluations for the makes of vehicles you are interested in; (2) Injury Collision and Theft Losses By Make and Model; and (3) Driver Death Rates By Make and Series. For new car buyers, you can probably reduce your insurance rates by selecting a vehicle that is less likely to become stolen, has a lower frequency and

severity of collisions, and fewer deaths associated with it. Call up your insurance company and ask for a couple of quotes; spending a little time researching vehicle loss data can benefit your safety and finances.

Vehicle Maintenance

Military personnel are educated to the importance and value of consistent maintenance of equipment. That's what a planned maintenance system is all about. Applying a planned maintenance system to your personal vehicle will extend the life of the vehicle and make it safer to operate. This is very important if the vehicle has been left parked for a couple of weeks. Windshields and headlights get dirty and obscure visibility, fluids run low or leak out from broken seals, and tires lose air pressure. The depth and type of tread on tires are contributing factors to a large number of vehicle collisions, particularly under wet or icy conditions. Keep in mind that just because you have a planned maintenance mentality does not mean that others have it also. Conducting a visual safety check of your own vehicle - as well as those belonging to other family members, relatives, and friends is a good practice to initiate.

Driver Maintenance

Driving when you are tired or sleepy is a good way to end up as a statistic. Fatigue slows reaction times and reduces peripheral vision. This is important to keep in mind as the majority of vehicle collisions (non-alcohol related) occur in the early morning and evening when everyone else is also tired or just waking up. Your physical and mental conditions are as important to driving as they are to combat.

Take a minute and evaluate your driving skills fairly. Could they be improved with a skills course? Statistics show that most high school driving courses are ineffective in reducing accidents, probably because the drivers are given enough confidence to be dangerous without the skills to back the confidence up. The point is, all of your safe driving efforts may be of limited value if your driving skills are limited to start with.

Scene Surveillance

Military personnel should always be asking themselves the following question: "Is the scene safe?" Survey the area around your vehicle before you approach it. This survey of your surroundings isn't just for the bad guy who may try to assault you but also for what other obstructions or hazards may be present when you pull out. About half of the vehicle collisions reported to my insurance company involve backing up in parking lots. Check around and behind your vehicle for hazards. If there is someone with you, use them as a spotter for backing up and preventing traffic from entering your blind spots. A good practice to get into is to back into the parking spot when you arrive. The logic is that the driver is usually more attentive to the surroundings when arriving than when departing. Backing in upon arrival allows you to have full visibility out the front windows when departing, when kids or other distractions may divert your attention. Also, the use of a spotter when backing into a parking space upon arrival is a good practice with military vehicles as well as your personal vehicle.

A large proportion of vehicle collisions that result in injuries occur at intersections. This is frequently compounded by failing to wear seat belts. However, keep in mind that if the other driver is not wearing a seat belt and the collision is your fault, the liability still rests on you. Generally, people are entering intersections at a speed too fast to have alternatives available. If you can't stop in a position that is clear of oncoming vehicles, you are probably entering the intersection too quickly. Maintain a constant awareness of the changing risks associated with passing through intersections, and accept no unnecessarv risks.

Route Selection

Most of us drive from point A to point B by the most direct route without considering alternatives. Construction zones, width of roads, and traffic patterns impact the safety of the route selected. There may be alternative routes that would be safer and allow a much more stress-free drive. The trip may take longer; but with a little forward planning, you can significantly reduce your risk of travel while at the same time satisfying your other scheduled commitments.

Road Side Emergency Equipment

A road side emergency kit is a necessity. Granted, the vehicle you own probably has a spare tire and jack ... maybe even a cellular phone. But, you also need some items that are generally not provided as standard equipment with a vehicle. Reflective triangles and road flares are good accessories for warning other drivers of a hazardous situation. If your vehicle breaks down in a deserted area during cold weather, an old coat or blanket to help keep you warm will come in handy as you endure the potentially long wait for help to arrive. Some bottled water and a couple of candy bars for emergency rations would also be a good idea. Furthermore, a roll of heavyduty tape, an adjustable wrench, and a couple of screw drivers are valuable items in a multitude of situations. An ABC type fire extinguisher might also mean the difference between an engine or electrical fire and a totaled vehicle. Keep in mind that all emergency equipment of this nature should be firmly secured in the vehicle. In the event of a collision, unsecured pieces of equipment can turn into flying objects and cause someone a severe injury.

A Final Word

A safe operating vehicle not only benefits the health of you and your family, but it can also save money and reduce stress. Moreover, in the event of a vehicle emergency, the knowledge, skills, and equipment you possess will help prevent loss of life as well as aid in protection of your assets. As a final word, remember this ... never take any unnecessary risks when you're driving a vehicle. Your life and the lives of others depend on it! sk Orville!" is a regular feature of *The Combat Edge* decicated to educating Ar Combat Command personnel on the principles of Operational Risk Management (ORM) — a common sense way of accomplishing the mission with reduced risk. The "Ask Orville!" article series is a Q&A forum prepared by our weathered, yet highly trained, ORM dogfight veteran "Orville R Mudd." Orville told us that he's busy searching for ORM questions throughout the command, and he wants your input. If you have any questions or comments regarding ORM, send them to:

DSN 574-8800, Fax DSN 574-8975 e-mail: ronald.garhart@langley.af.mil

Ask Orville! HQ ACC/SEO 219 Dodd Blvd Langley AFB VA 23665-5000

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Send your ORM questions to Orville ... today!

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| | CANG | FY 98 | 0 | 0 | | | | | | | | | | |
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| | | FY 98 | 0 | 6.3 | | | | | | | | | | |
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JANUARY 1998 The Combat Edge

HERE I WAS, sitting at my desk, staring blindly at my computer screen with glazed-over eyes. Reluctantly, I typed in my password and, while waiting for the e-mail to spool up, I leaned back and momentarily shut my eyes ... "a warm breeze whispered through my hair as I looked over the calm seas to the horizon. The bright blue of the sky reflected on the brilliant green seas of the Caribbean. Waves gently crested with a pristine white cap onto the sparkling white sands of the beach. The crisp line where the horizon met the sky was broken only by the silhouette of a cruise ship moving into the nearby harbor. Clean, white lines delineated against the blue sky. As I reached over for the ... " KLUNK! My head thumped against the back of the chair and, once again, I was back into the real world with hours of e-mail to work through.

Happy New Year! Having just come off of leave, I'm a little reluctant to get back to work; and I'm sure the rest of you feel the same way. January (and February) are probably the bleakest months on the calendar: cold, dreary days (with the exception of those in the southern latitudes) and no major holidays to anticipate. A small school in the foothills of the Rockies (also known as the Air Force Academy) refers to this time as the "Dark Ages." Several years ago at Base X, we would take the first Friday back at work in January and stand down for a Safety Day we named "Back in the Saddle." We would look back at the previous year. review mishaps and lessons learned, and refocus on the basics.

So, what did happen last year? From a safety standpoint, ACC did



We all need to take some time to focus our attention back to the mission. Take the time now, before the year truly begins.

not have a great year. We destroyed several aircraft and suffered fatalities throughout the command, caused by a variety of reasons — maintenance issues, ops factors, complacency, and distractions from the job at hand. The list of reasons seems endless. September was an especially bad month. In fact, the entire DoD was required to do a safety standdown that month after the military lost six aircraft in five days. Not everything we did last year was bad. On a more positive note, ACC completed the first phase in implementing Operational Risk Management (ORM). It is an outstanding tool to help mitigate risk for ALL personnel in our fast-paced business and bring our mishap rates down.

What can we do to improve? Let's get back to basics. Back to basics —it's such a simple phrase. We all find ourselves distracted at one time or another. Unit self-assessments, metrics, small arms training, chemical warfare training, ORIs, exercises, additional duties, and meetings — these are



just a few things that pull our focus from our primary duties. When was the last time you reviewed a technical order (T.O.) and I mean read and updated it as necessary? Does the T.O. need to be changed to account for procedures that are word of mouth versus what the book says? Are you really qualified to sign off that



Major Lori Pulaski HQ ACC/SEE Langley AFB VA

photo by MSgt T. Coaxum and SrA J. Cross



red X, fly the maneuver, or complete that procedure? Have you received the training to do what is being asked? Are the checklists or job guides being followed, or are they gathering dust on the shelf (or even sitting in the bag) while the job is done by memory? Are those checklists and/or job guides up-to-date? Back to basics is not a trite phrase or a list of questions to distract the troops turning the wrench or flying the jet. It is a return to airmanship, the use of good judgment, and acceptance of responsibility. We all need to take some time to focus our attention back to the mission. Take the time now, before the year truly begins. Review the past year for lessons learned, refresh your knowledge of requisite T.O.s and procedures, and then use risk management before, during, and after the mission. After all, it may be your life — or that of a fellow airman — that you save. Well, it's time to get back to my desk and go through all that e-mail ... only 500 to go! ■

Monthly Awards



AIRCREW SAFETY AWARD OF DISTINCTION

Capt Westley C. Kasper, Capt Joseph Trawinski, SrA Ty Kobza 66 RQS, AWFC Nellis AFB NV

During a cross-country flight at cruise altitude under instrument flight rules, the engines of HH-60G developed a severe torque split. Number one engine torque was at

105% while number two engine torque was down to 35-40%. Springing into action, the aircraft commander, Capt Kasper, scanned the other aircraft engine instruments (Ng, TGT, and oil pressure) with the flight engineer, SrA Ty Kobza, and verified the power disparity while the copilot, Capt Trawinski, slowed the aircraft up to reduce the power required to maintain level flight. After determining the nature of the emergency, Capt Kasper called for the appropriate checklist while Capt Trawinski continued keeping the aircraft flying. In accordance with the flight manual, the number one engine throttle was reduced to see if the number two engine would increase, thus isolating the malfunction to the number one engine failing to a high power setting. The number two engine's torque did not respond to the change in the number one engine, indicating a more serious problem of the number two engine failing to a partial power setting equal to approximately 30% of its maximum rated output. The number one engine throttle was brought back up at this point and an attempt was made to manually override the automatic fuel control of the number two engine and restore power output. This is the last step in the emergency procedure outlined in the flight manual to correct this type of malfunction. After performing this procedure, it was found the number two engine remained in the automatic mode. Capt Kasper announced this to the crew and told them he was going to reattempt the procedure. This and one further attempt failed, leaving the crew with only one good engine and beyond the guidance of the flight manual. Accepting the number two engine would not come fully back on-line, a plan was developed to make an en route descent and landing at the nearest airfield, Kelly AFB TX. As Capt Kasper expertly coordinated these intentions with the various air traffic control agencies necessary to effect the IFR descent and approach, Capt Trawinski skillfully maneuvered the crippled aircraft while SrA Kobza called out the necessary checklists for landing and kept a watchful eye on both engine's gauges. Working together, they ensured a "single-and-a-quarter" engine approach was safely executed to a running landing at Kelly AFB. After landing, the aircraft was shut down and key home-station squadron operations and maintenance personnel were then notified of the incident. The crew's efforts did not stop with the aircraft on the ground. When later performing a troubleshooting run-up, it was found that the number two engine's malfunction had cleared. After conversations with the crew chiefs who were accompanying them on the cross-country, it was determined a loose cannon plug may have caused the malfunction and was fixed when the crew chiefs did a visual inspection of the engine after its initial shutdown. Keeping an eye toward safety, the crew coordinated with home-station squadron operations and maintenance to perform several -6CF run-up checks to confirm normal engine operation in preparation for continued flight to Nellis AFB. These checks were performed without incident and the aircraft was uneventfully flown to Nellis AFB. The superb cockpit leadership and crew coordination, broad flying experience, high degree of technical expertise, and safety consciousness of the crew of aircraft 87-26011 combined to ensure the safe landing of their stricken aircraft and its eventual recovery at Nellis AFB without further incident.

WEAPONS SAFETY AWARD OF DISTINCTION

SrA Darryl W. Irons 20 EMS, 20 FW Shaw AFB SC

On 24 Sep 97, while performing a pre-issue inspection on BDU-33 suspension lugs, SrA Irons detected an error in Technical Order (T.O.) 11A-1-1, Conventional Munitions Restricted and Suspended. He noticed an irregular lot number listing when he was verifying the serviceability of the lot number against T.O. 11A-1-1.

SrA Irons suspected that the lot number in the T.O. was incorrect and could possibly be the lot number he was about to issue. SrA Irons immediately contacted the item manager for verification. The item manger confirmed the lot number in the T.O. was incorrect and provided him with the correct data. This information confirmed that the lot number in question had been "permanently suspended from issue/ use." SrA Irons immediately stopped the issue transaction and placed the assets in the proper serviceability condition code. He then researched and discovered another 5,000 suspension lugs with the same suspended lot number assigned to the base's munitions stockpile. He took immediate action and changed the condition code on these assets to reflect their actual condition. SrA Irons' strict adherence to technical data and attention to detail ensured the proper classification of these assets, circumventing a possible explosive mishap and/or personnel injury Air Force-wide. A safety supplement will be issued to T.O. 11A-1-1 to correct the restricted lot number.

GROUND SAFETY INDIVIDUAL AWARD OF DISTINCTION

MSgt Terry D. Kilpatrick 7 CRS, 7 BW Dyess AFB TX

MSgt Kilpatrick was performing a routine inspection on the element's Personal Fall Protection Equipment used by personnel during phase inspections on the B-1B. This equipment included a body harness as well as the aircraft securing clamps. These aircraft securing clamps are specifically designed to attach to securing points

on the B-1B backbone. During this inspection, he directed all fall protection devices to be inspected in accordance with Air Force Occupational Safety and Health Standard 91-31, paragraph 4.3.12, and Technical Order 00-25-245. Although clamps were not required to be inspected by Nondestructive Inspection (NDI), he decided that they should be. He sent six aircraft securing clamps used in his element's everyday activities to NDI, where inspection revealed four out of the six clamps were cracked. MSgt Kilpatrick's concerns were for the safety of his personnel and lack of inspection requirements for the clamps to be inspected by NDI. He quickly notified supervision, Ground Safety, and the Quality Assurance Flight of the defects found by NDI. His discovery resulted in Quality Assurance and Safety requesting the wing send all catch clamps from supply were inspected and failed. It was determined the clamps had a manufacturing defect. Although Dyess AFB did not have a single mishap due to defective clamps, MSgt Kilpatrick identified a potentially dangerous condition and possibly prevented serious injury or a fatality. His alert actions generated a worldwide Crosstell safety report and submission of an Air Force Technical Order Form 22 to add inspection requirements to their applicable directives.







FLIGHT LINE SAFETY AWARD OF DISTINCTION

MSgt David J. Haugen 333 FS, 4 FW Seymour Johnson AFB NC

Breaking the radio silence of the mid-afternoon lull was a call from aircraft 87-0188. The pilot reported an in-flight emergency for a hung bomb, BDU-50, on station number RC3 (right conformal fuel tank station 3). The proper response teams met the aircraft at the end of runway to safe up the munition, but were physically unable

to fully rotate the arming handle to the safe position. Upon further investigation, the personnel noticed the in-board side of the bomb release unit (BRU-47 cover panel) had been pushed out by a foreign object. Turning their attention to the entire area, they discovered a 3-inch hole in the LANTIRN navigation pod adapter. During this initial survey, they also noted that the filter cap for the BRU-47 and its filter were missing. The filter cap was later found inside the pod adapter. After safing and towing the aircraft to the ramp, MSgt Haugen, the weapons section chief, was appointed as the impoundment official. The 4th Operations Group Commander immediately arrived on scene as this was the second filter cap incident on the F-15E in a 2-week period. After discussing the situation with MSgt Haugen and other weapons experts, he took action and directed a one-time inspection (OTI) to ensure each filter cap was torqued to 510 inch pounds minimum. Not only did MSgt Haugen personally see that the OTI was completed professionally, but he initiated further procedures to extract more information from the inspection. He set a 400-inch pound limit, along with the minimum torque limit, to determine the extent of how loose the filter caps were in the racks. From the onset of this inspection, he unearthed several racks with loose filter caps, giving him a preview of what was to come. Over the next 2 days, the sheer number of torque limit failures led him to change his thinking and add a new dimension to the OTI. After retorquing all of the bad racks, he led an inspection on all the racks that were going to release munitions in the next few sorties. To his surprise, three out of the nine checked after release were bad again. He immediately brought this discovery to the attention of squadron and wing leadership and informed the ACC/LG F-15 office, so they could disseminate this data to other F-15 bases worldwide. MSgt Haugen distinguished himself by performing in a superior manner, both in conducting the OTI and engineering an in-depth investigation into both of these mishaps. By discovering and being a focal point for the fix of this safety hazard, he will prevent further hung ordnance, a very dangerous situation, and possibly catastrophic damage to aircraft. He identified a potentially high cost failure problem while sacrificing many manhours of overtime to get this problem resolved. This finding not only applies to our F-15E aircraft, but every aircraft that carries BRU-46/47 bomb racks.

UNIT SAFETY AWARD OF DISTINCTION

55th Security Forces Squadron 55 WG Offutt AFB NE

The 55th Security Forces Squadron continues to have one of the most outstanding safety programs at Offutt AFB and throughout Air Combat Command. The squadron has maintained zero Class A and B safety mishaps in 3 years—a major accomplishment, with the squadron working extended hours in both the operations and support functions during the past year and a half.

Results of the unit's annual Ground, Weapons, and Nuclear Surety Inspections prove the squadron's superior capabilities in the safety arena. The squadron's outstanding achievements in these areas are a direct result of the support

the commander has taken in addressing all the safety concerns and his active involvement in all the squadron's safety-related programs. As an example, he meets regularly with the Unit Safety Representatives to assess the squadron's safety status and provides guidance on all aspects of safety. The commander has established outstanding mishap reporting procedures throughout the squadron. The Unit Safety Representatives have done an exceptional job notifying the 55th Wing Safety Office on all mishaps and followed-up with supervisors to ensure completion of ACC Forms 164 when necessary. With over 100 mishaps experienced by the squadron this year, the 55th Wing Safety Office was notified of each incident for a 100 percent on-time notification rate, demonstrating the unit's rock-solid procedures.

It is apparent that the Unit Safety Representatives have a highly visible and active role in one of the largest unit ground safety programs in the 55th Wing and Air Combat Command. This is evident by the close rapport and sense of safety awareness that they have established throughout the squadron. The Unit Safety Management Book was noted by 55th Wing Safety and Air Combat Command Inspector General Safety Inspectors as being one of the finest at Offutt AFB. The book was well organized and all the information was current and up-to-date. The Unit Safety Representatives have conducted random, squadron-wide safety spot inspections which were well documented and continually exceed AF standards. The squadron actively and effectively utilizes all training slots offered by the 55th Wing Safety staff. The unit ensures current USAF Hazard Reports (AF Forms 457) are displayed throughout the squadron's numerous facilities. All supervisors have had access to comprehensive briefing guides and the required training on all mandatory items. All the AF Forms 55 for the entire squadron of 397 personnel were available, inspected, and found to be properly documented and complete. Also, all personal protective equipment maintained was inspected and found to be in excellent condition.

The 55 SFS has one of the largest number of personnel authorized to drive on the base flight line. All security force personnel and augmentees have been properly trained, and the squadron maintains the lowest vehicle mishap rate for flight line driving within the wing. This is a major accomplishment due to the number of unit personnel and the long number of hours these personnel have worked during this time.

The squadron established a Unit Safety Advisory Group which consists of at least one member from each of the operational flights and unit support sections. The group has been credited with identifying safety hazards both in the work area as well as throughout the entire base. The group has been the driving force in getting numerous safety hazards identified and corrected. As an example, it was this group that proposed that wing medical personnel conduct sports safety briefings for squadron personnel, keying on stretching and warm-up exercises. The program has been a huge success and has helped cut down on the number of pulled muscle-related sports injuries within the unit. Additionally, the squadron's explosives Safety and Nuclear Surety Programs have also been noted by Air Combat Command IG Inspectors as being "Outstanding."

55

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NINETEEN NINETY-SEVEN

Editor's note: The following index of articles is provided in an effort to make it easier for our readers to tap the reservoir of knowledge contained in **The Combat Edge**. We receive numerous requests throughout the year concerning past articles or artwork. Many times, the requests are quite vague concerning title, author, subject or issue and often ne-



cessitate laborious research through past magazines. This index was compiled so that **The Combat Edge** could continue to be a valuable source of information to our readers.

Index entries are listed alphabetically by title in the following format:

TITLE

Subject synopsis Author/Artist - Date, Safety discipline (if applicable)

We solicit your comments and suggestions concerning the index (or The **Combat Edge** in general) so we can better serve our readers. Send us a note or give us a call. Our address, phone number, and e-mail address are inside the front cover of the magazine.





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Dropped Objects

As the sole aircraft maintainer here in a shop full of aviators, one of my more "exciting" duties is tracking those pieces and parts that fall off our aircraft in flight. In doing so, I've been able to make some interesting observations. From January through September 1997, we (ACC) dropped over 100 pieces/ parts/panels from our aircraft at an incredible cost of over \$1.1 million. That's right — over 100 parts costing well over a million bucks! And thus far for FY98, we've already dropped over 20 parts costing nearly \$400,000. That's certainly not a good start for the fiscal year.

As such, I thought it would be interesting to highlight those parts — by aircraft type — that seem to be taking off with our jets but not coming back with them. Take a close look at those items on the following table which pertain to the aircraft on your base. I've listed those aircraft parts which have a trend of experiencing one more takeoff than landing. I've also provided the total cost of the loss of those items. Keep in

... parts that fall off of our aircraft cost the taxpayers a lot of money, not to mention the potential catastrophic consequences of baving a piece of an airplane coming through the roof of a private residence.

| AIRCRAFT | ITEM | # DROPPED | TOTAL COST |
|----------|-------------------------------|-----------|------------|
| A-10A | Unintentional BDU-33 Loss | 3 | \$150 |
| A-10A | Leading Edge Panel | 1 | \$12,700 |
| B-1B | Overwing Fairing Seals | 3 | \$54,000 |
| B-1B | Fuselage Panels | 12 | \$75,000 |
| B-52H | VOR Antenna Panel | 1 | \$6,000 |
| E-4B | Drogue/Antenna Wire | 7 | \$98,000 |
| EC-135C | Drogue/Antenna Wire | 2 | \$51,000 |
| F-15C/E | Servicing Panels | 2 | \$1,700 |
| F-15C/E | Antennas | 2 | \$7,300 |
| F-15E | Augmentor Probe | 1 | \$2,100 |
| F-15E | AIM-9 Radome Glass | 1 | \$25,000 |
| F-16A/C | AIM-9 Radome Glass | 1 | \$25,000 |
| F-16A/C | Ventral Fins | 5 | \$52,000 |
| F-16A/C | Ground Safety Pins/Devices | 13 | \$60,000 |
| F-117 | Fuel Test Panel Covers | 5 | \$5,800 |

mind, the cost reflected includes any damage the dropped object may have caused (for example, the FOD damage incurred when the object ends up going down the intake, dings a wing, etc.). Analyze whether there is anything that could be done to keep these parts on-board during flight. Could a thorough preflight/thru-flight/post-flight inspection catch the soon-to-depart item? Take a look at the table above, and you be the judge.

As you can see, parts that fall off of our aircraft cost the taxpayers a lot of money, not to mention the potential catastrophic consequences of having a piece of an airplane coming through the roof of a private residence. They also tend to cause us a lot of extra work ... especially when the part decides to work its way through a \$3 million jet engine. No one is about to tell you that all cases of dropped objects can be prevented. Unfortunately, certain parts do fatigue and fail without giving us any warning. However, there are certain items we can prevent from leaving our airplanes in flight by paying just a little bit more attention during our pre-flight/ thru-flight/post-flight/EOR (End Of Runway) inspections. For example, I can almost guarantee that servicing panels left unsecured on takeoff will not be there when the aircraft lands. Additionally, loose panels permitting the slip stream to get beneath them will develop their own lift and probably get ripped off the airplane ... a known problem on the "gun door" of the F-16. Let's work to ensure those items no longer leave the airplane unintentionally so we can concentrate on maintaining those systems designed to drop/ fire items we want to come off the airplane on command ... bombs, bullets, and missiles.

"Not a single sortie we fly is worth compromising the integrity of an aircraft or the life of an airman."



TSgt Rick Solots, ANG Combat Readiness Training Center, Gulfport MS

n 1979, my dad gave me my first car. It was a 1956 Oldsmobile 88 ... a fine car in its day, but a very large, heavy car by today's standards. Well, like most cars, it needed some work and I couldn't wait to get started. I lifted up the car with a hydraulic jack in our dirt driveway so I could get underneath it and remove the transmission crossmember. While doing this, I placed a stack of two-by-four scraps underneath the frame to protect me in case the jack lost pressure while I was working under the vehicle. Meanwhile, my dad was busy on his truck close by. All of a sudden, he heard a lot of commotion and quickly looked over at me where I was working under my car.

The vehicle had slid off the jack, missed the boards, and had me pinned down on my side. In a torturous frenzy, my feet were kicking back and forth while the rest of my body was racked with pain; within seconds, I was turning colors. My dad managed to get the jack out from underneath the car. He jacked up the vehicle enough for me to roll over on my back; then, grabbing my legs, he slid me out from under the vehicle.

Thank goodness the car still had wheels on it; if it hadn't, I wouldn't be writing this today. After catching my breath, my chest hurt so bad we went to the hospital emergency room. As soon as I told the doctor I had a car fall on me, "boom" I was on a gurney and on my way to x-ray. Fortunately for me, I was only bruised and sore for several days; but it could have been fatal if my dad had not been there to help me out from underneath the car.

The safety lesson learned here is "never crawl under a car unless it's supported by jack stands" — not wood blocks that can topple over or cinder blocks that can crumble from the weight of the car. After the car is supported by the stands, check to make sure it is stable, secure, and won't fall down. I'm still working on cars today, but I won't go under a car unless I'm positive it isn't going to move or shift; and, even then, I'm still a little shaky. Also, remember that having someone else around to help you in the event something does go wrong while you're underneath the car is also very important to your safety. "Thanks, Dad, for being there when I needed you."

I learned the hard way, but by reading this you don't have to. Don't get CAUGHT under a car without jack stands. Be safe! ■



photos by MSgt Ron Morrison, USAFR



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inter, the season of firewood, is now upon us. Here are some considerations for the safe use of chain saws.

Know Your Saw

All modern chain saws have certain safety devices designed to help you keep control of the saw and reduce the severity of accidents. You need to understand how they work, but remember — these devices are no substitute for training and experience.

Mitt, Hand Guard, or Chain Brake

Protective Mitt. Some models of chain saws have a leather protective mitt securely attached to the front handle (but free to rotate on it) to help you keep your left hand on the handle in case of kickback. It also provides protection for your hand. If your saw is not so equipped, use a well-fitting pair of heavy-duty leather gloves to provide similar protection.

Rigid Front Hand Guard. This helps to prevent your left hand from touching the chain if it slips off the front handle.

Chain Brake. The chain brake is designed to stop the moving chain if the front guard is moved forward. It can be activated if the saw rotates about its axis in a kickback situation and your left hand swivels on the front handle and contacts the front guard. Some models feature a motionactivated brake that engages automatically in a kickback

Adapted with permission from Royal New Zealand Air Force (RNZAF) Safety Insight Magazine, Number 13, Issue 97/1, May 1997 situation. You can also activate the chain brake manually.

Cutting with the Saw

It's important that you hold the saw correctly and adopt the proper stance. It's also necessary to know the different types of cutting action.

Holding the Saw. Place your left hand on the front handle and ensure the handle is gripped between thumb and fingers, with your thumb under the handle. Use the mitt if fitted with one. Your right hand should grip the rear handle, with your index finger on the throttle trigger.

- Maintain control of the saw while the motor is running by keeping a firm grip with both hands.
- Keep your feet firmly planted slightly apart in a balanced position. Do not over-reach. Move feet closer to the cutting position.
- Hold the saw close to your body with the saw body close to the cut for better control. Slightly

All modern chain saws have certain safety devices designed to help you keep control of the saw and reduce the severity of accidents. You need to understand how they work, but remember – these devices are no substitute for training and experience. bent arms will improve your control over the saw.

- Position yourself to the side of the intended cut to lessen the chance of injury from kickback.
- Never use the saw with one hand as you can easily lose control over it.
- Start the cut at high speed and maintain engine speed as you cut.
- When the cut is almost finished, reduce speed to avoid a sudden finish with loss of balance or the guide bar and chain hitting the ground or other objects.
- Regularly check chain tension and ensure that the chain is correctly sharpened.

Avoiding Kickback

Kickback is a potential danger whenever you use your saw. You need to know why it occurs and how to reduce it.

What is Kickback? Kickback occurs when the upper part of the bar nose contacts a solid object or is pinched. This causes a reactive force that may throw the guide bar in an uncontrolled arc towards you and can result in serious injury. Kickback can occur when:

- The bar nose hits hidden limbs or light material.
- The saw is boring into a log.
- The bar nose is pinched while cutting.
- The bar nose contacts ends of logs or obscured material.
- The chain is loose.
- The depth guides setting is too low.

Remember that kickback can occur in any plane. It may occur when using the saw with the guide bar horizontal when making a felling cut, while making a bore cut, or while trimming.

How to Reduce Kickback

- Using proper operating techniques will reduce the likelihood of kickback.
- Hold the saw firmly with both hands.
- Make sure your left thumb is wrapped firmly under the front handle and in the mitt, if fitted.
- Be aware of the location of the guide bar nose at all times.
- Do not let the guide bar nose come in contact with any object.

Other points to watch are:

- Be especially careful when cutting small limbs or light material that may catch in the chain.
- Do not over-reach or cut above shoulder height.
- Use extreme caution when reentering a cut.
- Cut only one log at a time.
- Correctly maintain your saw.
- Make sure there are no loose nuts, bolts, or screws.
- Ensure that safety devices are operable.
- Make sure the chain is tensioned, sharpened, and depth guides are set to the manufacturer's specification.
- Use a safety chain and the correct bar and chain combination.

Avoiding Health Problems

There are a few health hazards associated with chain saw use that you should be aware of.

Eye Injury. Proper eye protection is a must when working with chain saws. Don't depend on eyeglasses (shatterproof or not) to shield your eyes from fast-moving wood chips or other debris. Buy and use only safety eyewear that complies with American National Standards Institute (ANSI) Standard Z87.1-1989. Consider the safety of those around you also. Keep them out of the "danger zone" until the job is done.

Hearing Loss. The noise generated by a gas-driven chain saw can start to damage your hearing after just a few minutes of use. The longer the exposure, the greater the likelihood you will suffer permanent noise-induced hearing loss. To properly protect your hearing, make sure you wear suitable earplugs or earmuffs.

Exhaust Fumes. Exhaust fumes contain carbon monoxide which can make you feel drowsy and cause you to lose concentration, increasing the risk of an accident. To avoid it, ensure your saw is properly tuned and do not work in confined spaces.

Vibration Injury. While rather uncommon among the "casual" operator, repeated exposure to vibration can cause injury that leads to blood vessel spasm and may result in symptoms such as: blanching, numbness, tingling sensations, loss of muscle function, decreased sensitivity to heat and cold, and pain. Make sure your saw is properly tuned, regularly check that the anti-vibration mounts and other saw parts are securely fastened, and keep the chain depth guide set according to the manufacturer's instructions.

Conclusion

The above precautions will help you to enjoy relaxing in front of a nice, warm fire in the fireplace rather than getting stitched up in the local emergency room! Take care, and enjoy your winter. Reprinted from January 1973 Issue of TAC Attack

Lessons that Live: How Long

Lessons that Live is a collection of stories originally published in 1942 by the Army Air Forces under the direction of General "Hap" Arnold. Written by pilots firsthand, the stories record accounts of their narrowest escapes from potentially fatal accidents. Although the author of the following short story is anonymous, the narrative of this pilot's experience still provides — over half of a century later — valuable "Lessons that Live."

- Ed.

We were on a routine navigation flight in a B-18 airplane, en route from Puerto Rico to the island of Curacao, just off the coast of Venezuela. We were on automatic pilot and things were rather dull.

"How long," I mused aloud, "do you think a B-18 would float if it were forced down in the ocean?" It was purely an academic question, posed more than anything else for the purpose of creating conversation. The discussion waxed hot for a while, each of us having a different idea and defending it strongly; then I laughingly exclaimed that it was rather silly for grown men to be arguing about a theoretical question which we couldn't possibly settle right then anyway.

The words were no more than out of my mouth when both engines suddenly quit cold...without warning. We were then some 70 miles south of Puerto Rico. Automatically, I turned the fuel selector to a full tank and commenced working the wobble pump. Nothing happened, except that the propellers continued to windmill. We were losing altitude fast, and the bottom was dropping out of my stomach even faster.

I realized with a sinking heart that we were going to learn firsthand how long a B-18 would float. Hope springs eternal, however, and I began a re-check. Fuel pressure normal, oil pressure normal; everything, in fact, appeared to be in order. We just sat there in awed silence for a moment; then the pilot, resigned to our fate, instructed the radio operator to send our position back to the base.

My eyes wandered idly and helplessly over the instrument panel. Suddenly they froze on one point — the main ignition switch! Instead of being at an upward slant from the panel as it should have been, it was standing straight out. I leaped across the cockpit and threw it on. The engines started with a roar; that was the *sweetest music* I ever heard in my life, and we continued calmly on our way.

We had lost more than 1500 feet of altitude when the engines took hold. Fortunately, we had that much to lose with a little more left over; otherwise, my idly-posed question of "How Long Will a B-18 Float?" would have been answered for me then and there.



This narrative account demonstrates how boredom (a human factors risk) can be encountered by pilots on long duration missions. In addition to the elements of mental fatigue that cause degradation of a pilot's performance, the author of this true life story provides insight through lessons learned experience as to why total situational awareness during all parts of the mission...from beginning to end...is absolutely necessary. Boredom can occur when a pilot begins to demonstrate a state of reduced conscious attention due to a sense of security or a perceived absence of threat from the environment. If not properly checked, boredom_{*}can result in a pilot's failure to properly recognize or process information provided by cockpit instruments as well as the external environment. In addition, knowledge of the capabilities and limitations of your weapon system and the tactics used to employ it in various hazardous situations or environmental conditions is also extremely important. Don't let a reduced state of alertness or lack of technical/procedural knowledge preclude you from being able to take immediate action in a moment's notice.

- Ed.

"Accidents or near-accidents are almost invariably caused by pilot failure rather than machine failure, the weather or any other factor. This being so, it follows logically that accidents can almost invariably be prevented by better, surer flying. Accidents don't happen; they are caused. Knowing the causes, it should be easy to prevent them."

- General "Hap" Arnold

of effort for each issue of **The Combat Edge**; we're glad you appreciate his work.

Ed.

Never Modify a Manufacturer's Design

I would like to offer my comments on the article "Seeing Is Believing" ... {that appeared} ... in the September 1997 issue of The Combat Edge. While the article is very informative and brings a good point to light, I think that {the author} has missed the point of his article. The safety item that should have been highlighted was the unauthorized modification of his lawn mower. If the rear bag attachment had been in place or the discharge door had been down, the rock could not have been thrown from the rear of the mower. While I will agree that safety glasses or goggles are a good idea when using powered lawn tools, it is equally or more important to maintain the equipment in the manufacturer's designed configuration. Thank you for a terrific publication and the chance to air my viewpoint.

> Delbert L. Meador Grissom AFB IN

You are absolutely correct. The unauthorized modification of the lawn mower referred to in the article threatened the safety of the individual operator as well as those people around him. Since most of the features in a lawn mower are designed-in for safety reasons, it is important that the manufacturer's design of the lawnmower always be maintained. Your comment is well taken and greatly appreciated. Besides observing all safety precautions recommended by the manufacturer of the equipment, we agree with you that lawn mower operators should never modify a manufacturer's design.

Ed.

Hats on the Flightline?

Has anyone else noticed the 2 airmen on the front cover {of the

I am stationed at Misawa AB,

Are You On-Line?

Japan. I have been trying to access your magazine on the internet without success. Is the magazine on the internet? If it is, how do I access it? I can find every magazine but yours ... thanks in advance for your help.

MSgt Larry W. McDaniel Misawa AB, Japan

Thank you for your interest in our publication and your desire to view it on the internet. We recently placed **The Combat Edge** on-line; you can access our website through the following HQ Air Combat Command (ACC) Office of Safety Home Page address:

http://wwwmil.acc.af.mil/se/ Ed.

August Cover

Regarding your August 1997 cover ... awesome! JBW Langley AFB VA



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Thanks for the compliment. Our Graphics Artist, SSgt Dave White, puts forward a tremendous amount

"To the Point" 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:

HQ ACC/SEP Editor, **The Combat Edge** 219 Dodd Blvd Langley AFB VA 23665-5000

If you prefer, you can fax your comments to us at (757)726-8975/DSN 574-8975 or e-mail them to us at: adrian.robbe@langley.af.mil September 1997 issue} wearing their hats?

MSgt Ed "E.T." Tracey Shaw AFB SC

Thanks for your comment. Your concern regarding the wearing of hats on the flight line is a valid one. In addition to the general accepted policy of not wearing hats anywhere on the flight line, paragraph 1-4e of AFOSH Standard 127-100, "Aircraft Flight Line - Ground Operations and Activities," states that "Hats or caps will not be worn in the immediate frontal vicinity of aircraft while engines are operating." However, in the picture on the front cover of the September issue, the two airmen are not working on the flight line. They are



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in the Weapon Storage Area (WSA) at Minot AFB ND repositioning an MHU-196 trailer loaded with Air Launched Cruise Missiles (ALCMs) back into an igloo. Hats are required to be worn to and from the work place and in the WSA unless there is a local operating instruction directing that hats are not to be worn in that area — that is a commander's call. I apologize for not incorporating an explanation describing the picture on the front cover in the magazine -I'm sure other people may have assumed that the airmen were working on the flight line as well. Nevertheless, thank you for your constructive comment.

Ed.

June 1997 Air Force 50th Anniversary Issue

I've seen a lot of great work since the "birth" of *The Combat Edge*, but the June issue tops them all. Seeing all of the old iron on the covers, front and back, and the Aerospace Defense Command Interceptor article brings back a great rush of memories. I'm very proud of the work you and *The Combat Edge* staff accomplished with this issue. Congratulations and thank you!

> TSgt David Somdahl North Dakota ANG "The Happy Hooligans"

In reading ... {the article entitled "Airing Your Dirty Laundry" (June 1997 Air Force 50th Anniversary issue)}, ... it hit home very hard. I am a retired E-9 from the U.S. Navy (30 years) and was an aircrew member on the A-3D Sky Warrior most of that time. In reading the story, I can re-



JUNE 1997 50TH ANNIVERSARY

member over and over the times I was in some place and the mood for forgetting to say something that put you or your command in a bad light {was prevalent}. Many times I see it happen, and I have hoped that most of us ... would sit back and think of that saying — "What if?" The loss of human lives is not worth it. Thank you for reprinting that story.

JEJ Ridgecrest CA

Thanks for your kind notes. The 50th Anniversary of the Air Force issue of **The Combat Edge** is a favorite of ours as well. It was interesting to research the historical collection of mishap prevention articles for this commemorative issue —dating all the way back to the January 1961 premier edition of Tactical Air Command's safety magazine (**TAC Attack**) and the 1954 issue of **Professional Pilot** (Strategic Air Command's safety magazine which was later changed to **Combat Crew**). As we were preparing this special edition, we were impressed by our rich airpower heritage and the remarkable progress the Air Force has made in safety awareness and mishap prevention over the years. Ed.

Eagle Eyed Troop

Hi, Sir. *The Combat Edge* is a great magazine. I enjoy reading it very much, and your personnel do a great job putting it all together. But on the April 1997 edition, I noticed on the front cover and on page 24 that the negatives of the pictures for both F-15s were put in backwards. The only way I could tell is that the power cord is on the opposite side of the F-15 on the front page, and the air refueling door and guns are on the opposite side of the F-15E on page 24. Thank you.

MSgt Squitieri Mountain Home AFB ID

Good catch! Ummm... we knew that! Uh... this was a test. Yeah... that's the ticket! It was a test! ■ Ed.



APRIL 1997

The Combat Edge Air Combat Command's Mishap Prevention Magazine