GENERAL HAL M. HORNBURG, COMMANDER
COLONEL CREID K. JOHNSON, DIRECTOR OF SAFETY

HEAT STRESS
By 55 AMDS Bioenvironmental Engineer Flight, Offutt AFB, Neb., and Capt Monte Anderson, Beale AFB, Calif.

GOT FUEL?
By Geoff Janes, Robins AFB, Ga.

ROCKETS RED GLARE
By MSgt Mark W. Nichols, Shaw AFB, S.C., and MSgt J.C. Bollman, Nellis AFB, Nev.

FOR PETE'S SAKE
By SSgt Joshua Gallahan, Ellsworth AFB, S.D.

RED, WHITE, AND BBQ
Courtesy of the USDA

ARE YOU REALLY IN FULL CONTROL?
By Lt Bob Carman

Departments
MONTHLY AWARDS
FLEAGLE
STATS

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REMEMBER, CELEBRATE SAFELY

We are nearly one-third of the way through the 101 Critical Days of Summer '04, so ask yourselves: "How are we doing so far?" I say "we" because safety isn't the responsibility of just one person, or organization, it's something we all own and have a stake in. Success or failure is up to us. Airmen of every rank need to be safety advocates — know how our warriors have been lost and take the lessons learned to everyone you know. Help break that next mishap chain of events.

The heat is on! Summer temperatures will begin to peak in July, and with the heat comes the threat of heat-related injuries, both on and off duty. Be aware of heat stressors as you go about your day-to-day duties. In this month's edition of THE COMBAT EDGE, you'll find an excellent article explaining the effects, warning signs, and preventive measures to help "beat the heat," as well as a handy heat index chart to convert temperature and relative humidity to help answer the question: "How hot is it?" Clip the chart and post it for ready reference.

July also marks the 228th anniversary of the birth of our nation — a festive time, as well as travel and celebration with friends and family. Fireworks have always been a part of how we, as Americans, celebrate the Fourth of July. Unfortunately, fireworks accidents are too often the result of personal fireworks shows. The purchase, transportation, and use of personal fireworks are not legal in all states, so consult state and local regulations before buying. Use the fireworks safety tips and suggestions when deciding to purchase and use personal fireworks and when in doubt leave it to the experts — it's safer and less expensive in the long run.

Lastly, take time to care for yourself and those around you as you commemorate our nation's independence this month. Consider the role you play in the success of ACC as a war-fighting command, and ultimately the United States in the fight against terror, and then consider how well the fight would go without you. Take time to remember those who served before us, allowing us to enjoy the freedom we have today — make safety your Combat Edge!

Colonel Creid K. Johnson, ACC Director of Safety
Heat stress is a combination of direct environmental variables (mainly temperature and humidity), work rate and clothing requirements. These factors combine with indirect acclimatization and physical conditions to increase body temperature and cardiovascular demands. Acclimatization to heat involves a series of physiological and psychological adjustments that occur in an individual during the first week of exposure to hot environmental conditions. Extra caution must be taken when workers who are not acclimated or physically fit must be exposed to heat stress conditions. The greater the heat stress is on these workers, the greater the resulting physiological strain. Heat stress can diminish performance and adversely affect health and safety. Most heat-related injuries can be avoided if people are aware of their environment and can recognize heat stress symptoms.

The three types of heat-induced illnesses include heat strain, heat exhaustion, and heatstroke. Transition from one to the next can be very evident, hardly noticeable, or not evident at all.

Heat strain is when the body temperature is between 99.5 and 100 degrees Fahrenheit. It reduces performance, dexterity, coordination, and alertness. Incidence and severity will vary among people.

Heat exhaustion is when the body temperature is between 101 and 104 degrees Fahrenheit. It may cause fatigue, nausea/vomiting, cramps, rapid shallow breathing, and fainting. The skin is pale, cool, clammy, and moist with profuse sweating, and the pulse rate is weak. In its most serious form, heat exhaustion leads to prostration and can cause serious injuries.

Heatstroke is when the body temperature is greater than 104 degrees Fahrenheit. It is the most serious heat-induced illness because of its potential to be life threatening or result in irreversible damage. Heatstroke results from the body losing its ability to lower its temperature. The heatstroke victim is often manic, disoriented, confused, delirious or unconscious. The victim’s skin can be hot and dry because sweating has ceased. If treatment is not immediate, the victim’s condition can deteriorate to convulsions, brain damage, and eventual death. Immediate emergency care and hospitalization are essential if signs of heatstroke develop. Cool down by any method available and transport to the nearest medical facility for treatment.

Assessment of heat stress can be conducted by measuring the physical factors of the environment. The commonly used area monitoring measurement is Wet Bulb Globe Temperature (WBGT). This index relates atmospheric effects to heat stress in outdoor and harsh industrial environments.

Physics of Heat

According to thermodynamics, and a great deal of paraphrasing, heat is transferred in three ways: radiation, convection, and conduction.

Radiation — This refers to heat that is exchanged from distant objects (like solar radiant heat or a heater in a room). Certain objects, depending on color and composition, retain and continue to radiate heat (like asphalt, rocks, or dark clothing).

Convection — This refers to the relative movement of air that increases heat exchange. This method is used in convection ovens to cook food efficiently and evenly. Air movement when the temperature exceeds body temperature may increase heat stress. Imagine again your convection oven. Fans cannot cool a person when the temperature exceeds 90 degrees Fahrenheit and humidity is greater than 35 percent. Fans have actually caused heat stress when the temperature is above 100 degrees Fahrenheit. During outdoor activity, certain types of clothing limit the relative wind across the skin, restrict evaporation of sweat, and add a layer of trapped air as insulation.

Conduction — This refers to the direct contact with objects allowing heat exchange (i.e., touching a hot iron). Good thermal conductors transfer heat quickly. Sit on a hot metal playground slide wearing shorts and you will clearly understand conduction. Humidity is an environmental factor that makes it “feel hotter.” As the relative humidity increases, evaporation is inhibited, reducing the effectiveness of the body’s natu-
ral response to heat. This makes it feel much hotter than the actual temperature reflects. Meteorologically speaking, this is the heat index. The heat index, similar to windchill in the winter, establishes an apparent temperature by comparing either temperature/relative humidity (see heat index chart) or temperature/dew point.

As physical activity increases, so does the amount of muscular heat produced in the body core. The more you move and exert yourself, the more heat your muscles produce. This is why one uncontrollably shivers during very cold temperatures, heat exhaustion, or even heatstroke, as the body can no longer maintain a safe core temperature.

**Physiological Response to Heat**

Skin plays a central role in maintaining a constant body temperature of 98.6 degrees Fahrenheit (37 C) in two ways. First, capillaries in the skin exchange heat with the environment. In hot weather, these capillaries dilate (cutaneous vasodilation), allowing increased blood flow and heat exchange along the surface of the skin through both conduction and convection. Besides sunburn, this is the reason skin appears red during exercise or hot weather. Second, the skin aids in cooling the core temperature through evaporation. When body temperature increases above 98.6 degrees Fahrenheit, the body actively secretes sweat, containing water and salt from sweat glands in the skin, increasing evaporation and heat loss. Similarly, the exchange across the capillaries of the lungs and the release of water vapor through respiration regulate body temperature.

Additionally, the body reacts in several other ways to decrease body core temperature. The body decreases metabolic rate, thereby lowering metabolic heat production in the body core. In hot weather, behavioral reactions decrease internal temperatures. For example, people naturally become lethargic and tend to rest or lie down. This decreases heat production and increases heat loss to regulate body core temperature.

On a normal day, the body loses approximately 2 liters or a 1/2 gallon of water as imperceptible evaporation from the skin or during respiration. During hot weather and during strenuous physical activity, perspiration increases the rate of water loss. As the body loses water, its ability to regulate temperature is greatly affected. On very hot days and during exercise, by the time you recognize the feeling of thirst it may already be too late! You may not be able to overcome your hydration deficit with continued exposure or physical activity. As one becomes more dehydrated,
there is not enough water volume in the body for adequate circulation and thermoregulation. Prolonged dehydration can lead to heat exhaustion or even heat-stroke, as the body can no longer maintain a safe core temperature.

**Prevention**

There are several things you can do to prevent heat stress injuries.

**Stay hydrated.** Drink plenty of fluids 30 to 45 minutes before exercise and then a cupful every 10 to 15 minutes during exercise. Drink non-alcoholic beverages. Water or sports replacement drinks are the best way to replenish your fluid deficit. Alcohol and caffeine will promote dehydration.

**Wear light colored, loose fitting clothing.** Moisture wicking fabrics will help evaporation and keep you cooler than heavier fabrics that retain heat. Also, wearing a hat and sunglasses will prevent sunburn, making you feel much more comfortable in the outdoors.

**Physical conditioning is very important as to how your body reacts to heat.** Individuals with a higher oxygen uptake are more tolerant of heat than those with lower fitness levels. Also, fat is a great insulator. Extremely obese people are six times more likely to suffer heat stroke than thin people.

**Finally, avoid the heat whenever possible.** Plan your activities to avoid the hottest part of the day or stay in the shade. Limit outdoor activities during humid days (high heat index).

Understanding the physics and physiology of heat is vitally important when it comes to safely enjoying any summertime activity. Be familiar with the symptoms of heat stress disorders and know the proper first aid — for yourself and those around you. Allow time to acclimate to the heat and use proper prevention measures. Now get outside and stay cool.

### Heat Index Table

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* Heat and humidity affect everybody differently. Several assumptions are used to calculate the Heat Index. The Heat Index assumes that the body is 5 feet 7 inches tall, 147 pounds, caucasian, body temperature at 98.6 degrees, clothed in long trousers and a short-sleeved shirt, in shade, walking at a speed of 3.1 miles per hour, in a breeze of 6 miles per hour, not dripping sweat.

Note: If any of these factors change, e.g., more exertion, more clothing, and/or more weight, the Heat Index will change for that individual. Exposure to full sunshine can increase Heat Index values by up to 15 degrees Fahrenheit.
There's an old saying that "The Army runs on its stomach." Well, the Air Force runs on jet fuel and lots of it!

Story by Geoff Janes, Robins AFB, Ga.
Photos by SSgt Verlin Collins, Langley AFB, Va.
The job of running fueling operations plays a critical role in maintaining the high ops tempo for aircraft supporting Operation IRAQI FREEDOM (OIF). As far as the job goes, there are two ways to provide fuel in a forward operating location. According to Col David King, commander of Detachment 3, Air Force Petroleum Office in Fort Belvoir, Va., “a plane can land at an international airport for a one-time shot, but for any type of sustained military activity, and for force protection and political considerations, we set up our own facilities.” Fuel bladders containing 50,000 to 210,000-gallon bags are used to hold fuel that can be used in all types of military vehicles and aircraft. With high-tempo operations, these bladders and the fuel personnel that conduct fuel operations play an important role in the way the USAF does business.

When petroleum specialists are dealing with vast amounts of fuel like the amounts now being used in the war on terrorism, safety becomes a daily priority. The potential for mishaps is ever present during fuels maintenance so it’s important that all written procedures and operating instructions are followed. Along with standardized procedures, there are many precautions that must be in place due to the high-risk nature of fueling operations, especially during hot pit refueling and fuels maintenance on fuel cell bladders. “When the new people first arrive in the area of operations, they are briefed on all the things they can and can’t do,” MSgt Shawn Simon, a refueling equipment manager said. “Then, we have a safety briefing every day before beginning operations.”

According to Col King, providing air and ground support from a bare-base or deployed location is a prime example of what fuels people are doing to support
the warfighter. All personnel involved in fuel handling and maintenance are trained on all aspects of the operation and on procedures that relate to: fire prevention and protection, static electricity, lightning (adverse weather conditions), personal protective equipment. These safety procedures all play a significant role.

"We are presenting our forces differently and quickly to the warfighter," King said. "It's leading edge stuff. What our new way of doing business means to fuels is that a guy goes in and lays out the base quickly and efficiently. By day three, a bare-base is supposed to be open for aircraft business, and deployed personnel accomplished that in several deployed locations during OIF; all without compromising safety."

Fuels personnel set up refueling stations within 72 hours, and crews were servicing aircraft. Once in operation, the fuels personnel only took an hour and a half from the time a single KC-135 Stratotanker (used for in-flight refueling operations) landed, to load up roughly 20,000 gallons of fuel, and get back in the air.

Once a refueling point is set up at a deployed location, caution is always exercised in day-to-day operations. "The fuel bladders are kept in a dike area," MSGt Simon said. "If you were in the area with the bladders and a 210,000-gallon bladder ruptured, there would be no way you could get out. Because of that, we keep people out of the (area) as much as possible - there are times when you have to go in, like if a hose were to rupture, but we keep people out of them as much as we can." On the occasions when a person does have to enter the dike area, they wear a harness with a rope attached to it. The other end of the rope is held by another service member, whose job is to pull the pit worker to safety in the event they are overcome by fumes or faced with danger. The vapors are strong, the fuel has a flashpoint of 100 degrees, and the fuel can dry out your skin. But Simon said it's just part of the job.

The service members who deploy and operate fuel facilities are pooled from across the Air Force. The work is hard at deployed locations. In an average day during OIF, many fuel points pumped several hundred thousand gallons of fuel per day, and the people working the stations pulled 12-hour shifts. "In the really hot locations they split up the day so no one shift had to bear the burden of the heat," Col King said.

MSGt Simon related that when he was deployed to Prince Sultan Air Base in Saudi Arabia, people weren't allowed in the fuel berms from 10 a.m. until 6 p.m. unless there was an emergency. That was because the chance for a bladder to burst increased during that time due to the desert heat which can reach temperatures of 130 degrees.

Although the refueling stations have been set up and operated in a safe and effective way in the past, there are still obstacles to overcome. "A lot of this equipment is 10 to 15 years old and we're abusing it like crazy," Col King said. "But the demands of the war are taking its toll, and we have to be thinking about new technology, new materials and concepts for deployment and employment." We are fighting this war in the fuel community in a way we've never fought before," Col King added. "Force protection concerns demand that suppliers deliver fuel outside the fence line. It's the Air Force's responsibility to move it from the fence line to the flight line."

"We're a drop-in-and-fight Air Force," Col King said. "We don't fight from fixed facilities. The Cold War is over. We're an Expeditionary Air Force — we drop in from remote locations. It's important that we fully train and certify our maintainers to perform the many tasks required in these operations safely. Technical data must always be followed to ensure all warnings, cautions and notes are adhered to at all times. The potential for mishaps is ever present, so it's very important that all written procedures and operating instructions are followed. Safe and efficient operations are our goal, because the entire combat operation depends on us."
Amputation, 3rd degree burns, loss of sight, loss of hearing ... sound like battlefield injuries, or maybe a car crash?

How about the aftermath of an off-duty get-together of a few friends or family members — guess again! These are real life, recreational fireworks injuries seen by our military and civilian physicians during their professional careers. Seemingly innocuous sparklers, firecrackers, and bottle rockets exact a toll of pain and suffering on thousands of Americans each year. Unwitting children often make up a large segment of those victimized, and the physical and emotional scars often last a lifetime.

An Air Force doctor interviewed in the preparation of this article stated he had personally witnessed the following injuries:

- Superficial burns to the fingers and hand from simply handling the lighting devices or from faulty fuses
- A blinding injury from an off-course bottle rocket
- A 3rd degree burn on the lower extremity from a Roman candle that ignited a patient's clothing
- A complete amputation of a finger from a "homemade" super firecracker

Fireworks account for an average of 8,000 reported injuries annually. In the past, firecracker injuries had topped the list as the leading cause of fireworks injuries, but they were surpassed by sparklers in 2002. During a Consumer Product Safety Commission (CPSC) special study conducted from 21 June to 21 July 2002, of fireworks sold commercially: sparklers caused 26 percent of injuries, firecrackers caused 18 percent, rockets caused 14 percent of injuries, and fountains, novelties and Roman candles accounted for 18 percent of injuries.

As previously stated, children are especially susceptible to injury when using fireworks. Results of the CPSC special study show that children under 15 accounted for nearly 50 percent of reported injuries as compared with the rest of the studied population (16 to 64 year olds). The statistics illustrate that under no circumstances should children, especially small children, be allowed to use fireworks unsupervised.

Additionally, fireworks are not authorized in all states and municipalities. Local ordinances in many cases severely restrict and, in some cases, prohibit the use of fireworks. It is important to check with your local fire and police departments prior to using any fireworks. Just because you can purchase them, does not mean it is legal to use them!

Does this mean all fireworks use should be avoided? Absolutely not! Responsible use of legal fireworks under the close supervision of mature individuals can be a lot of fun for all. Don't let your Fourth of July celebration end on a sour note. Follow the manufacturer's guidelines and treat all fireworks with respect!

The Most Dangerous Explosives

Often, the question is asked, "out of all the different explosives — homemade or manufactured — which are the most dangerous?" It may surprise you to learn that according to the U.S. CPSC latest report (2002 Fireworks Annual Report released in the summer of 2003) reports four fireworks related deaths in 2002 (equaling 2001 and down from 10 deaths in 2000). Additionally,
approximately 8,800 people were treated for fireworks-related injuries in 2002. This is down from an estimated 9,500 injuries in 2001. In a 1-month study from 21 June to 21 July 2002, the CPSC recorded 4,400 injuries from firecrackers, bottle rockets, and various other fireworks (sparklers, fountains, Roman candles, etc.), and only 100 injuries from homemade or improvised explosives like M100s, cherry bombs, and M80s.

In general, this makes fireworks such as bottle rockets and sparklers the most dangerous manufactured explosives and more likely to inflict injury due to them being widely available and thought of as "safe" versus homemade explosives.

Bottle rockets are dangerous for two very simple reasons. First, the rate of travel of a standard bottle rocket can reach speeds up to 200 miles per hour, and they are very susceptible to ricochet — often traveling in any direction but the one intended. Second, the bottle rocket presents a significant fire hazard. When a bottle rocket detonates, the casing can burn from a few seconds to a few minutes. The sparkler is the silent danger. One misconception is that sparklers do not blow up; however, one reported injury in 2002 involved a 15-year-old boy who twisted several sparklers together and then lit them. The sparklers exploded causing deep lacerations to the victim's hand and a perforated eardrum. Injuries from explosive sparklers are rare, with nearly all sparkler injuries being burns from the intense heat generated. A typical sparkler can burn at temperatures up to 1,800 degrees. At this temperature even gold melts so consider the close range effects on your skin and eyes.

M80 and M100 cherry bombs are illegal in many states. This is because of the amount of energetic material contained in these small packages. Typically, 16 M80s or eight M100s detonated together can equal a stick of commercial grade dynamite. The destructive power of these fireworks is very impressive. The same general principles that apply to commercial and military explosives apply to fireworks. The explosive power of these fireworks can be doubled when they are compressed or contained. Illegal fireworks continue to be a serious problem. According to the CPSC, over the past 12 years, illegal explosives or homemade fireworks have typically caused 33 percent of the injuries associated with fireworks. The CPSC Office of Compliance enforces regulations on the importation, manufacture and sale of fireworks in the United States. Another enforcement activity that remains a priority for the Office of Compliance is the investig-
Fireworks Safety Tips

The American Pyrotechnics Association offers the following safety recommendations for using fireworks:

- Always read and follow label directions
- Always have an adult present
- Only buy from reliable fireworks sellers
- Only ignite fireworks outdoors
- Be sure to have water handy
- Never experiment or attempt to make your own fireworks
- Light only one at a time
- Never re-ignite malfunctioning fireworks
- Never give fireworks to small children
- Store fireworks in a cool, dry place
- Dispose of fireworks properly
- Never throw fireworks at another person
- Never carry fireworks in your pocket
- Never shoot fireworks in metal or glass containers

According to Air Force requirements, on- or off-duty Air Force personnel must not take part in the transportation, storage, setup or functioning of commercial fireworks for on-base fireworks displays. As the Fourth of July approaches, do not become another statistic. Fireworks can be the most dangerous explosives and are best handled by trained professionals.
Heritage Flight

LANGLEY AFB, VIRGINIA -- A formation of an F-86, A-10, P-38 and P-51 fly over as a part of Langley AFB's annual air show

Photo by TSgt Ben Bloker
Masters of Disaster
LANGLEY AFB, VIRGINIA--Masters of disaster performers Shockwave and Jimmy Franklin's jet-assisted Waco thrilled the crowds both in the air and on the ground as part of Langley AFB's annual air show.

Secure it!
LANGLEY AFB, VIRGINIA--Members of the 820th Contingency Response Group from Moody AFB, Ga., demonstrate securing the airfield during Langley AFB's annual air show.

Photo by MSgt Alex R. Lloyd

Photo by SSgt Tanika Bell
On takeoff, at approximately 135 KIAS, the Master Caution Light and the Hydraulics-Reset light illuminated; the aircraft commander of Doom 90 then noticed zero hydraulic pressure on one of two main hydraulic systems. Because the airspeed was well past the B-52H “committed” point, the crew elected to continue the takeoff and climb-out as normal, even though the right side landing gear would not retract due to the hydraulic malfunction. At level-off, the crew consulted the emergency procedures section of the B-52H technical order to evaluate appropriate actions for the safe recovery of the aircraft. The crew recognized this emergency would result in significant landing complications including: reduced landing gear steering and crosswind crab capability, one-half rate of normal stabilizer trim and potential loss of up to 50 percent of braking action. While troubleshooting the problem, the ER and EWO discovered significant amounts of hydraulic fluid sprayed throughout the forward wheel well, visible through the crew compartment bulkhead window. To reduce the potential landing risks associated with this emergency, the crew decided to land at 230,000 lbs aircraft weight and to stop straight ahead on the runway, thereby minimizing necessary braking and steering. In addition, the crew planned to emergency egress the aircraft due to the possibility of a fire caused by leaking hydraulic fluid onto the hot brakes. All landing intentions were relayed to the Duty Instructor Pilot at Barksdale AFB, who concurred with their plan and coordinated for activation of the crash net upon Doom 90’s return. The crew declared an in-flight emergency with Shreveport air traffic control and flew an uneventful approach and landing. Upon rollout, the drag chute was successfully deployed and the aircraft was brought to a stop approximately 1,000 feet from the end of the runway. The crew shut down all aircraft systems and safely egressed from the aircraft in under 70 seconds. The quick and proper actions of Doom 90’s crew minimized the risk of a serious in-flight emergency and resulted in the safe recovery of a valuable national resource.

Lt Cols Brian Anderson and Mary Hausen, Majs Don Broyles and Mark Ely, Capts Jim Covelli and Brenden Rowe, 1Lt Ryan Wellman
96th Bomb Sqdn., 2nd Bomb Wing, Barksdale AFB, Louisiana

While deployed to Nellis AFB, Nev., in support of the Weapons Instructor Course (WIC), TSgt Roark, SSGt Hamilton, A1C Borja, and Amn Jackson were performing aircraft de-arm duties. While in the process of de-arming aircraft 79-0050, they noticed fuel leaking beneath engine #2. The amount of fuel leaking from the engine became excessive as they began to investigate its cause. At that point, the 3-member team determined they needed to ensure the safety of the aircrew and the aircraft. They immediately instructed the pilot to do an emergency shutdown and egress the aircraft. Once the aircraft and crew were safe, it was determined that the fuel was coming from a broken fuel line leading to engine #2. Raw fuel was spraying directly onto the 13th stage Bleed Air Valve and pooling up in the panel directly below the valve. The quick and decisive actions of the de-arm crew prevented extensive damage to the $30M F-15 aircraft and saved the aircrew from possible injury or loss of life.

TSgt Michael Roark, SSGt Mark Hamilton, A1C Jessalynn Borja, Amn Cameron Jackson, 33rd Aircraft Maint. Sqdn.,
33rd Fighter Wing, Eglin AFB, Florida
Mr. Erik Brown’s non-stop efforts as Unit Ground Safety Monitor have moved our squadron to the highest level of safety awareness to date. As the principal safety and risk management advisor to the squadron leaders, he developed multiple programs directly resulting in the unit receiving an “Outstanding” on our recent Ground Safety Inspection. The inspector noted Erik’s “effective management contributed to the positive safety climate and is a good predictor of its safety record.” In addition, inspectors highlighted him as being very “enthusiastic, extremely knowledgeable and proactive in managing the program.” Recognized by Wing Safety, he spearheaded a myriad of unit safety initiatives, ensuring squadron members are more safety-aware than ever. Erik used daily web searches to advise squadron members of safety hazards and recalls. His High Risk Activity program was named as a wing “Best Practice.” The program identifies activities, educates participants and encourages personal ownership of day-to-day risk mitigation, whether in the office or at home. Mr. Brown ensured 100% contact and documentation of all unit personnel, despite the squadron having 12 geographically separated locations. Additionally, Erik integrated safety issues into every Commander’s Call and daily roll calls, screening vast amounts of safety-related information and presenting succinct, powerful topics for relevant application. His efforts were the central driver behind a 100% reduction of reportable and non-reportable mishaps to squadron members and their families. He ensured the integration of Operational Risk Management into all aspects of mission accomplishment, beginning with employee-in-processing and continuing through safety meetings and briefings. Erik took leadership’s general concepts and developed award-winning initiatives. For example, he created a non-leave local area sign-out log whereby we can instantly locate out-of-town members during weekends and holidays. He incorporated quality of life enhancements that are fully commander-supported, such as periodic safety, sports and family days and squadron fitness programs, helping to promote healthy lifestyles. Mr. Brown greatly enhanced supervisory interaction when he established and incorporated a unit briefing policy prior to all scheduled leave and TDY travel. Furthermore, his ORM travel checklist was incorporated into every test plan—newcomers now benefit from the travel experiences of those who have “been there.” Erik has fully engaged the squadron on the 53d Wing Safety Pledge and individuals now invite peers to intervene on safety related issues. Due to Erik’s initiative and keen ability to communicate, Operational Risk Management has become a natural part of all we do, 24/7.

Mr. Erik Brown, 29th Test Support Sqdn., 53d Wing, Eglin AFB, Florida

The maintenance operations center alerted flight line personnel of a weather warning for approaching severe weather, including lightning and 50 knot winds. The warning was valid from 0900 to 1800L; therefore, wing leadership issued an order to immediately hangar as many aircraft as possible. In just over an hour, 366th Aircraft Maintenance Squadron personnel, with the assistance of 366th Equipment Maintenance Squadron maintenance flight personnel, removed 39 of the wing’s non-deployed aircraft from the flight line. When all available hangar spots were filled, 1.3 billion dollars worth of aircraft had been towed to cover, leaving only five aircraft on the ramp. The weather system hit just as squadron personnel were completing the last tow operation. Although it was not as severe as predicted, the squadron’s quick reaction to forecasted conditions was nothing short of monumental.
Sgt Downey was towing two each 4x JDAM munitions trailers from the MSA to the flight line with a US Navy escort. As he approached the last mile, of the 7.5-mile trip, he heard what sounded like an explosion. SSgt Downey immediately stopped the bobtail and upon getting out, noticed heavy black smoke coming from the rear of the trailer. He swiftly contacted Munitions Control and informed them he was towing was smoking heavily from the left rear side. Between himself and the two airmen with him, A1C Albert and SrA Carrasco, they expended three fire extinguishers, narrowly avoiding an all-out tire fire. AMMO flight supervision, SMSgt McCullough and MSgt Gibson, arrived on the scene to troubleshoot further munitions movements. At the same time, the Munitions Controllers on duty, SSgt Bryant and SrA Terc, ran the Emergency Action Checklists. British Indian Ocean Territory Police, Navy Security Escort, and the local Fire Department were on scene for traffic control and to evaluate further actions. The quick disconnect brake line on the trailer was then released, relieving the pressure on the drum. With supervision and the Fire Chief escorting on foot, the trailer continued the additional mile to the flight line area. When a larger area of solid ground was reached, SMSgt McCullough and MSgt Gibson directed the cross-loading of the munitions to complete their safe delivery.

A 100 percent inspection of the braking system has been implemented with zero findings.

SSgts Daryl Bryant and Bradley Downey, SrAs Erik Terc and Bruno Carrasco, A1C Paul Albert, 40th Air Expeditionary Group

First Lieutenant Radoescu was descending out of medium altitude in preparation for a low altitude close air support training mission. Descending through 10,000 feet MSL, the A-10's right engine low oil pressure master caution light illuminated. Lt Radoescu immediately initiated a "Knock-It-Off" and informed his flight lead of the situation. He coordinated with his flight lead to initiate an immediate divert to Shaw AFB, S.C., 40 miles to the northwest, declared an emergency with air traffic control, and then accomplished the Low Oil Pressure checklist. Unknown to Lt Radoescu, a power take-off bearing in the engine had failed, making complete loss of oil pressure imminent. This made his immediate divert decision critical because it significantly minimized the time and distance required to fly on a single-engine. Lt Radoescu reduced the right engine power in accordance with the Dash 1-2 checklist and noted that the oil pressure remained within emergency operating limits. After confirming that the engine core speed was also within normal limits, he then reduced the power to idle in order to maintain the minimum emergency oil pressure of 30 psi. However, approximately 25 miles from Shaw AFB, the right engine oil pressure dropped below 30 psi, so Lt Radoescu quickly accomplished the remainder of the checklist by shutting down the right engine and preparing for a single-engine landing. Lt Radoescu informed Shaw Approach Control of his deteriorating situation and his landing intentions while configuring for a single-engine landing in accordance with checklist guidance. During the single-engine approach, Lt Radoescu concentrated on maintaining his single-engine approach parameters while controlling any excessive yaw with smooth rudder inputs. This focus on aircraft control, while single-engine, is critical since the loss of thrust and subsequent high yaw rates during single-engine approaches have resulted in three Class A mishaps in the A-10's history. Lt Radoescu knew the speed brakes would not be available after landing, and the landing distance would be increased due to the loss of right side hydraulics. Lt Radoescu executed a flawless touchdown near the approach end of the runway, used maximum aerobraking, and cautiously applied the wheel brakes to stop the aircraft in the remaining runway distance. Once he brought the aircraft to a stop on the runway, Lt Radoescu shut down the remaining engine and egressed the aircraft. Lt Radoescu's excellent in-flight decision making in a critical phase of flight and flawless execution of a difficult single-engine approach prevented the possible loss of a valuable combat asset.

1Lt Razvan Radoescu, 75th Fighter Sqdn., 23rd Fighter Group, Pope AFB, North Carolina
Quarterly Award Winners

Ground Safety
Award of the Quarter

Technical Sergeant Woodruff has distinguished himself as an outstanding Safety NCO overseeing the well-being of 399 airmen in the Component Maintenance Squadron. TSgt Woodruff has taken a number of innovative steps to ensure that his safety program is effective and above reproach. He gutted the squadron’s outdated “wingman card” in favor of a user-friendly mishap notification card that has been a life-saver. This card is a bi-fold product that includes critical Tri Care, Poison Center, Airmen Against Drunk Driving, and immediate supervisor telephone contact information. It shows a clear flowchart of actions showing both on- and off-duty action steps; credited with reducing missed notification occurrences from three to zero. TSgt Woodruff received an “outstanding” rating by the 355th Wing during its annual safety inspection. He was then recognized this past quarter by the Wing Chief of Safety, who presented him a coin for his dedicated, organized approach to squadron safety. He provides monthly safety briefings at each commander’s call in which a “hot-issue” of the month is briefed helping to reverse negative trends. His briefs help to spotlight and avoid seat belt incidents, motorcycle accidents, backing mishaps, and off-duty disasters. Since the inception of this program, there has been a 25 percent reduction in the number of accidents in the CMS, and mishaps have gone from 20 per quarter to 15. His knowledge of safety/environmental issues made him a natural choice to be on the wing ESOHCAMP Tiger Team. The scope of the ESOHCAMP investigation included the Medical Group, Snowbird Ops, and AMARC and identified roughly 30 write-ups, significantly improving safety across the installation. TSgt Woodruff’s findings averted a very likely fire scenario when stored gas cans, POVs, and combustible materials were found within an enclosed space surrounded by over an inch of flammable, contaminated water. He also discovered a storage area above a squadron break area and office complex that had never been load tested or approved. He immediately shut down the area and removed over 1200 pounds from the area, and submitted a work order to get the ceiling load-tested and properly rated. The members of the 355th Component Maintenance Squadron are in good hands due to TSgt Woodruff’s intelligent and enthusiastic approach to the squadron safety program.

TSgt Jonathan Woodruff, 355th Component Maint. Sqdn., 355th Wing, Davis-Monthan AFB, Arizona

Weapons Safety
Award of the Quarter

The 12 AF Weapons Safety Office is comprised of two highly motivated, knowledgeable and professional NCOs. MSgt Haught and TSgt Rexin make up the weapons safety team that flawlessly manages the explosive safety program for 12 AF. These experts oversee seven wings, three DRUs, 17 gained ANG/AFRES units, and five forward operating locations (FOLs). They received ACC’s first ever “Outstanding” rating during their 22 - 26 March 2004 ACC Program Management Evaluation (PME). Their Explosive Site Plan tracking program was benchmarked by ACC and will be the “Standard for ACC.” Their management of all weapons safety program elements was noted as “Flawless” by the ACC PME. Their guidance and direction is evident in the strong mishap prevention programs seen throughout the wings in 12 AF. This quarter there were no reportable Class A or B weapons mishaps and a 50% reduction in Class C and D weapons mishaps. Additionally, they directed 12 AF munitions personnel in the safe shipment of small arms ammunition for operations in Haiti. Their development of 12 AF/SEW staff assistance continuity books and use of detailed protocols for active and gained units ensures each unit within 12 AF receives the same quality of program management evaluation. The Staff Assistance Visit (SAV) program was noted as being the “Best Seen to Date” during the ACC PME. The detailed weapons safety protocols used during these visits identified all deficient areas and provided viable and complete recommendations to units. MSgt Haught and TSgt Rexin’s dedication and commitment to commander and subordinate units was noteworthy. They were requested by the 3 CCG commander to perform a follow-up SAV to ensure the unit was ready for higher headquarters inspection. The ACC PME inspection team stated, “Overall, the 12 AF Weapons Safety Program has set a standard that all Air Combat Command Numbered Air Force programs should seek to match.”

MSgt William Haught, Jr., TSgt Richard Rexin, 12th Air Force, Davis-Monthan AFB, Arizona
Flight Safety Award of the Quarter

Captain Betts and Major Hunter flew with call signs Kraut 3 and 4 respectively as part of a four-ship defensive counter-air training mission. During the second engagement, Maj Hunter's F-16 aircraft registered a warning light with a corresponding illumination of the hydraulic/oil warning light. Maj Hunter immediately initiated a knock-it-off in accordance with regulations and informed the flight of his oil system malfunction indications. Capt Betts, while checking Maj Hunter's aircraft for visible problems, coordinated for Kraut 1 to find information on the emergency airfield. Kraut 1, while coordinating with AWACS, the adversaries, and Fort Worth Center, relayed the following information to Maj Hunter: coordinates for the airfield, the approach and tower frequencies, and the 7,400 foot runway length with no arresting gear (The minimum runway length for the F-16 under normal conditions is 8,000 feet). Upon achieving a 1-to-1 glide ratio to the landing field, Maj Hunter commenced a flawless straight-in simulated flameout landing approach to the unfamiliar and short emergency airfield. Simultaneously, Capt Betts and Maj Hunter switched to the approach frequencies for the emergency airfield. Unable to communicate with approach control, Maj Hunter contacted the control tower. He calmly communicated to the controller that he needed to make an immediate emergency landing. Due to the runway length of only 7,400 feet, Maj Hunter determined he could not stop the aircraft on the runway if he touched down too long or too fast. Once he determined he could safely glide to the runway if the engine failed, he transitioned to a short-field approach in accordance with the F-16 technical order. Maj Hunter executed a flawless short-field landing and touched down on-speed just past the threshold. Maj Hunter stopped the aircraft on the short runway without incident, steered the aircraft clear of the runway, and immediately shut down. Post-flight inspection revealed the engine lost over half of its oil. The phenomenal crew coordination, actions, analysis, and airmanship exhibited by Maj Hunter and Capt Betts undoubtedly prevented a Class A mishap due to engine flameout and the loss of a 30 million dollar combat asset.

Maj Larry Hunter, Capt William Betts,
524th Fighter Sqdn., 27th Fighter Wing, Cannon AFB, New Mexico

ACC Safety Salutes Superior Performance

Capt Cameron Dadger,
Capt Anthony Pelkington,
Pilots, 27 FW
Cannon AFB, N.M.

Maj Charles Surman,
Human Factors Flight Test Analyst, 31 TES
Edwards AFB, Calif.

MSgt Dean Anderson,
SSgt Darrell Erdman,
SrA Brian Gierveld,
A1C Manuel Malipit,
Production Superintendent Crew Chiefs,
4 AMS, 4 FW
Seymour Johnson AFB, N.C.

SSgt Aaron Hemberger,
Dedicated Crew Chief,
366 FW
Mountain Home AFB, Idaho

TSgt John Tinker,
Weapons Safety Manager,
366 FW
Mountain Home AFB, Idaho

SSgt Jamie Gilbert,
Weapons Load Team Chief,
2 AMS, 2 BW
Barksdale AFB, La.
Simply put, I should have been more alert to my surroundings while riding my motorcycle. Of course, I didn’t realize it until after the fact when I had time to reflect. I’m not writing this article because I enjoy recollecting unfortunate past events. Rather, this is an endorsement for safety gear from someone who has used it. I was very fortunate in my accident; I went to work the next day. I was sore, but at work full time because my safety gear worked.

My accident happened on a warm October evening just outside of downtown Rapid City, S.D. It was a beautiful evening, and I had just washed my bike 30 minutes earlier. I wasn’t familiar with the particular stretch of road I was riding, but I was confident nonetheless. At 35 mph, I made a head sweep looking for traffic on my left to change lanes. I spotted a red car and watched it as it passed by me in my target lane. When I looked ahead, I noticed the road took an “S” turn to the left less than 3 feet in front of me, and with traffic to my left, it was entirely too late to stop or take evasive action. I hit the curb, sending myself and my new bike skidding on our right side for 75 feet.

I had made a wrong decision by not being aware of my surroundings, I didn’t react fast enough to the situation, and my head wasn’t completely in it. There were several causal factors for my accident, but it only took a second to play out. Fortunately for me, for everything I did wrong on the ride, I did right.

I didn’t react fast enough to the situation and my head wasn’t completely in it. My injuries were minor; I landed on my right side and rolled. I bruised my hip and elbow. Instead of the 2-inch piece of road rash on my elbow my right arm may have been ground down to the bone if it wasn’t for my leather jacket. I ruined my jacket and pants when I slid, but they were made for such abuse. I don’t even want to think what may have happened if I hadn’t worn a helmet.

The bike did not do so well, but it can be fixed. However, I am alive and well. In fact, I didn’t even need to go to the hospital so I healed in the comfort of my own home. I am able to drive to work every day because of the men and women who make helmets and leather jackets. I thank them for that.

While there are many things motorcyclists can do to avoid accidents, it is still an inherently high-risk activity. Motorcyclists can exponentially increase their chances of survival by doing three simple things: drive defensively, wear proper protective gear, and don’t drink and drive. It worked for me; it can for you too.

And for Pete’s sake, be careful out there. >
Cooking outdoors was once a summer activity shared with family and friends. No more than half of Americans say they are cooking outdoors year round. So whether the snow is blowing or the sun is shining brightly, it's important to follow food safety guidelines to prevent harmful bacteria from multiplying and causing food borne illness.
Use these simple guidelines for grilling food safely.

From the Store: Home First

When shopping, buy cold food like meat and poultry last, right before checkout. Separate raw meat and poultry from other food in your shopping cart. Cross contamination can happen when raw meat or poultry juices drip onto other food. To guard against cross-contamination, put packages of raw meat and poultry into plastic bags. Plan to drive directly home from the grocery store, and you may want to take a cooler with ice for perishables. Always refrigerate perishable food within 2 hours. Refrigerate within 1 hour when the temperature is above 90 degrees Fahrenheit. At home, place meat and poultry in the refrigerator immediately. Freeze poultry and ground meat that won’t be used in 1 or 2 days; freeze other meat within 4 to 5 days.

Defrost Safely

Completely defrost meat and poultry before grilling so it cooks more evenly. Use the refrigerator for slow, safe thawing or thaw sealed packages in cold water. You can microwave defrost if the food will be placed immediately on the grill.

Marinating

Meat and poultry can be marinated for several hours or days to tenderize or add flavor. Marinate food in the refrigerator, not on the counter. If some of the marinade is to be used as a sauce on the cooked food, reserve a portion of the marinade before putting raw meat and poultry in it. However, if the marinade used on raw meat or poultry is to be reused, make sure to let it come to a boil first to destroy any harmful bacteria.

Transporting

When carrying food to another location, keep it cold to minimize bacterial growth. Use an insulated cooler with sufficient ice or ice packs to keep the food at 40 degrees Fahrenheit or below. Pack food right from the refrigerator into the cooler immediately before leaving home, and keep the cooler in the coolest part of the car.

Keep Cold Food Cold

Keep meat and poultry refrigerated until ready to use. Only take out the meat and poultry that will immediately be placed on the grill. When using a cooler, keep it out of the direct sun by placing it in the shade or shelter. Avoid opening the lid too often, which lets cold air out and warm air in. Pack beverages in one cooler and perishables in a separate cooler.

Keep Everything Clean

Be sure there are plenty of clean utensils and platters. To prevent food borne illness, don’t use the same platter and utensils for raw and cooked meat and poultry. Harmful bacteria present in raw meat and poultry and their juices can contaminate safely cooked food. If you’re eating away from home, find out if there’s a source of clean water. If not, bring water for preparation and cleaning, or pack clean cloths, and wet towelettes for cleaning surfaces and hands.

Precooking

Precooking food partially in the microwave, oven, or stove is a good way of reducing grilling time. Just make sure that the food goes immediately on the preheated grill to complete cooking.

Cook Thoroughly

Cook food to a safe internal temperature to destroy harmful bacteria. Meat and poultry cooked on a grill often browns very fast on the outside. Use a food thermometer to be sure the food has reached a safe internal temperature. Whole poultry should reach 180 degrees Fahrenheit; breasts, 170 degrees Fahrenheit. Hamburger made of ground beef should reach 160 degrees Fahrenheit; ground poultry, 165 degrees Fahrenheit. Beef, veal, and lamb steaks, roasts and chops can be cooked to 145 degrees Fahrenheit. All cuts of pork should reach 160 degrees Fahrenheit. NEVER partially grill meat or poultry and finish cooking later.
Reheating

When reheating fully cooked meats like hot dogs, grill to 165 degrees Fahrenheit or until steaming hot.

Keep Hot Food Hot

After cooking meat and poultry on the grill, keep it hot until served — at 140 degrees Fahrenheit or warmer. Keep cooked meats hot by setting them to the side of the grill rack, not directly over the coals where they could overcook. At home, the cooked meat can be kept hot in a warm oven (approximately 200 degrees Fahrenheit), in a chafing dish or slow cooker, or on a warming tray.

Serving The Food

When taking food off the grill, use a clean platter. Don’t put cooked food on the same platter that held raw meat or poultry. Any harmful bacteria present in the raw meat juices could contaminate safely cooked food. In hot weather (above 90 degrees Fahrenheit), food should never sit out for more than 1 hour.

Leftovers

Refrigerate any leftovers promptly in shallow containers. Discard any food left out more than 2 hours (1 hour if temperatures are above 90 degrees Fahrenheit).

Safe Smoking

Smoking is cooking food indirectly in the presence of a fire. It can be done in a covered grill if a pan of water is placed beneath the meat on the grill; and meats can be smoked in a “smoker,” which is an outdoor cooker especially designed for smoking foods. Smoking is done much more slowly than grilling, so less tender meats benefit from this method, and a natural smoke flavoring permeates the meat. The temperature in the smoker should be maintained at 250 to 300 °F for safety. Use a food thermometer to be sure the food has reached a safe internal temperature.

Pit Roasting

Pit roasting is cooking meat in a large, level hole dug in the earth. A hardwood fire is built in the pit, requiring wood equal to about 2 1/2 times the volume of the pit. This can require 4 to 6 hours burning time. Cooking may require 10 to 12 hours or more and is difficult to estimate. A meat thermometer must be used to determine the meat’s safety and doneness. There are many variables such as outdoor temperature, the size and thickness of the meat, and how fast the coals are cooking.

Does Grilling Pose a Cancer Risk?

Some studies suggest there may be a cancer risk related to eating food cooked by high-heat cooking techniques as grilling, frying, and broiling. Based on present research findings, eating moderate amounts of grilled meats like fish, meat, and poultry cooked — without charring — to a safe temperature does not pose a problem.

To prevent charring, remove visible fat that can cause a flare-up. Precook meat in the microwave immediately before placing it on the grill to release some of the juices that can drop on coals. Cook food in the center of the grill and move coals to the side to prevent fat and juices from dripping on them. Cut charred portions off the meat.

For further information, contact:

USDA Meat and Poultry Hotline
1-888-MPHotline
(1-888-674-6854)
1-800-256-7072 (TTY)
E-mail: mphotline.fsis@usda.gov
FSIS Web site: www.fsis.usda.gov

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In 2002, pedestrian fatalities accounted for over 11 percent of all fatal motor vehicle crashes. 1,394 of those fatalities occurred due to improper pedestrian crossings of roadways. Roughly 3,200 of the pedestrian fatalities occurred when dark or during low lighting conditions.

It was a wet morning. The rain had stopped nearly an hour earlier, but a mist still hung in the air, and water splashing on my windshield forced me to use my wipers now and then. With only 6 or 7 miles to go before I arrived at work, I knew it still would be dark because sunrise wouldn't occur for another hour and a half.

At that point, I suddenly realized the past 15 miles had been a blur. I had been thinking so hard about the day ahead, the one behind, and a sports report on the radio, I couldn't remember anything else.

I had made this same drive the last 2 years without a single memorable event. This morning, however, things were about to change. It happened as I started merging onto I-40 from south I-235 in Oklahoma City. Almost 300 yards in front of me was a car. I didn't pay much attention to it until the brake lights came on, and I saw something fly over the front of the car.

I had slowed as I entered I-40 because of the wet roads, but I didn't realize my reaction time had slowed also. I immediately found myself in a bad situation getting worse as I realized there was a body lying in the middle of the interstate. I couldn't turn left, as the car ahead of me had stopped there. I made a quick risk assessment of the situation, and turned to the right.

My slow reactions combined with a slower assessment forced me to jerk the steering wheel hard right, barely missing the body. I then had to jerk the wheel left to avoid hitting a retaining wall on the right side of the interstate. This maneuver, coupled with the wet roadway, caused my car to fishtail. I turned into the slide but couldn't stop the momentum, and I slid sideways for what seemed like an eternity before coming to rest in the middle of the interstate. I quickly backed up to the left side of the freeway and stopped my car. I put my car's emergency flashes on, got out, and walked back toward the other car.

The right front, hood, windshield, and top of that car were heavily damaged. The driver, a young lady, was in the car trying to call the police, but she was having difficulty because of her terror. I asked if she was OK, and she told me she wasn't hurt, so I ran down the shoulder of the
road to a spot close to where the person was lying. Because of the darkness, I couldn’t tell if the person was dead or alive.

There were four lanes of traffic, with a 65 mph speed limit. I ventured into the road and started waving my hands to get people to stop. Despite my efforts, four or five cars passed by me, one striking the person again, before anyone slowed. I finally was able to stop traffic in the two left lanes, and cars in the other lanes slowed. A minute later, the police arrived and took charge of the situation. They put out flares, and diverted traffic around the accident scene.

The person the young lady had hit was a transient who had been walking across the entrance ramp. While she wasn’t formally charged, she will have to live with the accident for the rest of her life.

The morning after this eye-opening experience, I tested myself as I drove to work and found I could barely see anything beyond the range of my headlights. Under low light situations, I realized I was relying on other sources of illumination to fill in the spots where my headlights didn’t reach. Under the previous day’s road conditions and speed, I doubt that my reflexes would have been fast enough to avoid hitting objects in the road just beyond my headlights. I thought I could stop or swerve in plenty of time to avoid any potential problem. Now I know better.

I urge you to join me in “slowing down,” especially when hazardous driving conditions exist. I wouldn’t want to live my life knowing I had killed or injured someone when all I needed to do was slow down and drive defensively. Do you?
Fleagle

MAN! WHAT A DAY.

Tu' sun is shining and tu' air is warm.

WUNDER why there's nobody out an' about on a day like this?

think i'll walk over to ops an' see what's going on.

DID IT GET WARMER OR IS IT JUST ME?

Better give me a hand. Tiny, fleagle has gone an' got himself a bit too much sun.

Knock! Knock!

Plop!
First, a moment of silence please for the aviator we lost in May. We also lost 2 F-16s in that midair. A bird strike caused May's other Class A. Fortunately, the crew safely ejected from their F-15E. Summer flying is dangerous business, so hydrate, watch out for each other, and clear your flight path. Let's work on preventing flight mishaps one at a time — the goal is zero mishaps. Check yourself before you wreck yourself. Fly Safe!

The command has suffered 15 Class A mishaps this year, 14 fatalities and 1 permanent total disability. This represents a 25 percent reduction over FY03 where we had 20 Class A mishaps, resulting in 19 fatalities and 2 permanent total disabilities. We've also sustained 2 permanent partial disabilities this year.

So far this year we have seen an increase in missile mishaps. There have been three in the past two quarters (all personal errors). I challenge everyone who handles, loads, and stores missiles to make a concerted effort to reduce the number of mishaps to zero. While this may seem like an impossible task, remember, the above mishaps were the result of bad decisions made with good intentions.
As our nation commemorates its Independence, take time to celebrate safely.

High against terror to the success of ACC and our country in the freedom for future generations.

Take time to remember those who have sacrificed their freedom to preserve the USA.

Take time to care for yourself and those around you.

Take time to consider how United You are.

When bad men combine, the good must associate; else they will fall one by one.

- Edmund Burke, 18th-century English political philosopher

"Independence, take time."

As our nation commemorates its independence.