



Stickly get your kicks the next Critical Days

GENERAL RONALD E. KEYS, COMMANDER

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4 Who's Got the Jet?

Cover Photo by A1C Samantha Wilner

- 8 Bugs with Bite
- 13 Motorcycle Focus by Lt Gen William M. Fraser III, Vice Commander, Langley AFB, Va.

14 Don't GET TICKED! by SSgt Ray Sinclair-West, 1 Aerospace Medicine Sq.

18 LOCKOUT / TAGOUT & Electrical Safety

by Mr. Daryl Hammond, P.E., Tyndall AFB, Fla.

22 **Road Trip** by Mr. Vince Dotson, Barksdale AFB, La.

DEPARTMENTS

- 24 MONTHLY AWARDS
- 28 QUARTERLY AWARDS
- 30 FLEAGLE
- 3] STATS

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"IF YOU PLAN TO MOTOR WEST ... SAFELY GET YOUR KICKS, THE NEXT – 66"

... 66 Critical Days of Summer that is, July is here and summer is in full swing! School has been out for a few weeks and you're ready to embark on that well-deserved vacation that you've waited all year for. Keep your vacation from resembling our "Road Trip" article this month; don't push the limits by trying to cram 2 weeks worth of vacation into 1 week. It's dangerous and it defeats the purpose of a vacation, as you'll return to work "stressed" versus "refreshed" – make all your memories of your vacations good ones.

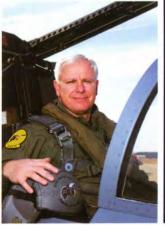
ACC members will take to the water for boating fun and there will be plenty of backyard barbeques to attend. Commanders and Supervisors: don't forget to stress the use of both Operational and Personal Risk Management to your troops prior to signing off on leave requests and at commander's calls before the 4th of July holiday. Most sports contain some degree of danger, but with proper preparation, the right equipment, and a well thought out plan, you can minimize the hazards of summertime fun. Participation in water activities such as boating, water-skiing, swimming, and fishing will be at an all time high. Emphasize the dangers posed by complacent attitudes ("I do this every year" or "I don't need a life jacket") as well as the mixing of alcohol with water activities – simply put, "Don't" ruff said.

Stay focused on the "big ticket" safety threats, but don't underestimate Mother Nature. Mother Nature can jump up and bite you in many small ways if you let your guard down, as can some of the bugs in our "Bug Bites" article inside. Nothing kills a perfectly good time like a mad dash to the emergency

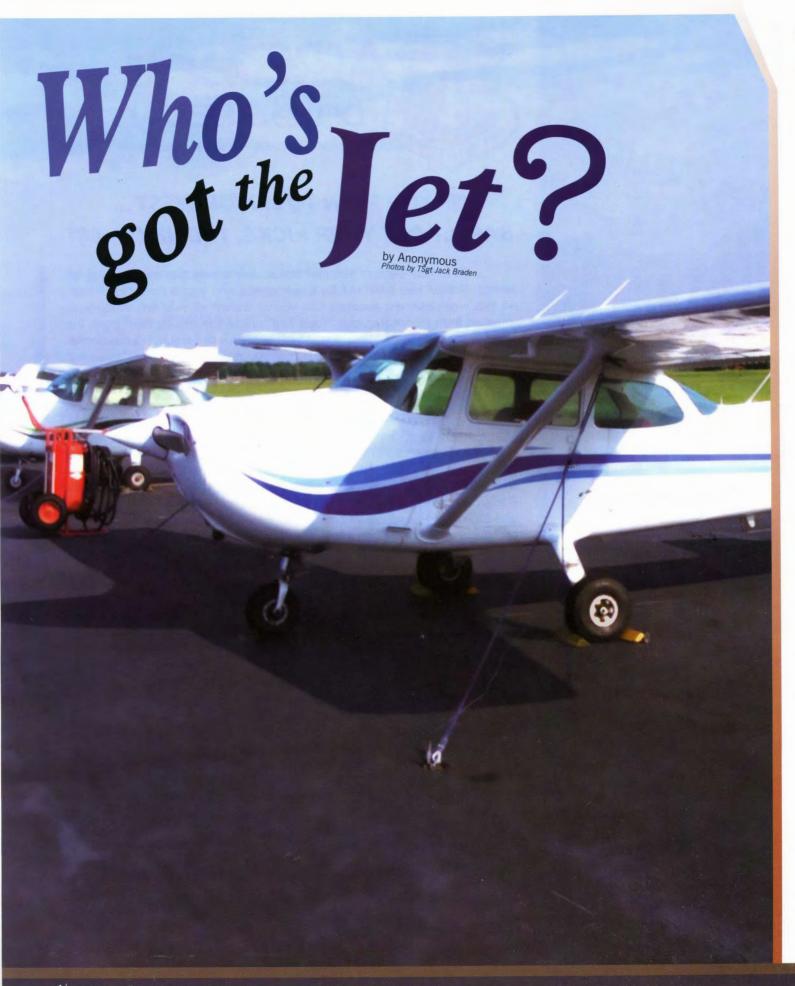
room. Simple steps, like shaking out your shoes before putting them on, or using sunscreen can keep your off-duty activities from impacting your on-duty responsibilities. Just because the sun may not shine on a particular day, does not mean you won't get burned – play it safe, use sunscreen lotions for added protection. There's nothing worse then spending a day at the beach and then not being able to work the next day because you're so burned you can't put your uniform on.

There's plenty of vacation season left – ample time to slow down and prevent the next mishap. **So get your kicks, but play it safe, make safety**

your Combat Edge during the next 66 ...



Colonel Creid K. Johnson, ACC Director of Safety



et's just say they were pine trees, really tall pine trees, why?" I asked.

"There's supposed to be a stand of them around that airport, and it would have been a shame if they were old-growth longleaf pines" was my roommate's reply after hearing about my near miss with a stand of pines a mile out from final approach.

I know what you're thinking, "You're either dangerous, an idiot, or both if you nearly flew a Cessna 182 into a stand of pine trees on final during a progress check with an instructor on board," and you'd be right if I or the instructor had actually been flying the aircraft at the time ...

Nearly 20 years later, I now realize that the Flight Screening Program, (affectionately known as "Fish Pot" to most) was a "good deal." But as a young ROTC cadet, it was a very stressful 3-week summer program flying either T-41 aircraft at Hondo, Texas, or Cessna 182s at Embry-Riddle University in Daytona Beach, Florida. For those not familiar, if a pilot candidate didn't have a private pilot's license, they had to pass a screening program before being sent to Undergraduate Pilot Training (UPT). Fish Pot was academics and flight instruction aimed at testing a student's ability to master the skills necessary to solo within a 3-week span and roughly 14 hours of flight time. At the Embry-Riddle location, the instructors were civilians under contract with the military, and were required to use the same military terminology and techniques that the UPT schools used. The procedure to transfer positive aircraft control between the instructor and student was one such example where the Air Force training and the civilian instructor's methods differed.

If the instructor was handing control of the aircraft over to the student, they were required to state "you have the aircraft" whereupon the student would respond with "roger, I have the aircraft" and give the aircraft a quick wing rock to confirm with the instructor that they had control of the aircraft. The procedure was then reversed when control was passed back to the instructor. At the end of my second week of flying over Daytona Beach, I had "aced" the academics, but I only had the 90 percent solution when it came to the flight phase of the program. My last 10 percent was landing. I couldn't land to save myself and the compressed nature of the program

didn't allow time to just practice landing skills, resulting in an "86 ride" or progress check flight early Monday morning of the third week.

I spent all weekend "chair flying" Monday's flight profile, studying aircraft systems, and emergency procedures for the mighty Cessna. A strong line of thunderstorms and high winds on Sunday paved the way for perfect flying weather Monday morning as we filed into the briefing room. To ensure an unbiased evaluation of my progress, I was required to fly with an evaluator/instructor I had never flown with before. The greeting was cordial, and then the evaluation portion began. He was all business as I briefed him and then he quizzed me at length on systems and air work procedures before we headed to the flight line. During the preflight, he would ask me a question, but then interrupt my answer with another question in an interrogating way. I don't know if it was his plan, but his attitude irritated me so much that I got distracted, and then began to miss things, which formed the first link of the mishap chain.

"Do you think this thing will taxi?" he asked me after we had climbed into the cockpit and began to strap in prior to engine start.

"Yep" I replied as I continued my prior to engine start checklist.

"Are you sure this thing will taxi?" he quizzed again. The second question sent my mind racing, going through all the procedures up to that point, rewinding my memory and couldn't come up with any reason why it wouldn't taxi.

"It'll taxi once the engine is running" I shot back confidently. When my response wasn't met with a chuckle or a smile from the evaluator, I quickly opened the door and looked to make sure I hadn't forgotten to pull the chocks or unfasten the wing tie-downs. I froze when I noticed the

Boy,

nose gear tie-down **66** chain still firmly attached to the bottom of the aircraft Shocked

I couldn't believe that I had missed it during the preflight, *AIPE* especially since I had to draw three

fuel samples from the lower sump (which is about 6 inches in front of the nose wheel tie-down point) before the fuel system was clear of water. I quickly exited the aircraft, unchained the nose gear, climbed back in, and buckled my seat belt.

"Yep, that's a big one, that's gonna hurt ya" was all the evaluator said as I resumed the before engine start checklist, my confidence severely shaken. Engine start, taxi and takeoff went well until just after we were airborne, when without notice, the evaluator slapped his clipboard over the flight instruments and commanded, "set and trim me a 60 knot climb rate." I made a slight correction, trimmed the aircraft and gave him an "okay" sign combined with a "what the hell is your problem?!" look.

Satisfied, he noted the correct climb rate, and directed, "give me a 90 degree heading change at 30 degrees of bank to airport X and our first landing." Upon rollout, I set a level aircraft attitude, but our attitudes toward one another had definitely taken a nose-dive and an instructor/student "cold war" broke out. He continued to quiz me on different subjects as I made the entry call to the uncontrolled airport and entered the downwind leg of the approach. Once established on downwind, we observed several aircraft in the pattern. "We'll extend the downwind and give them some breathing room," my instructor said and continued with "take a break, I have the aircraft" whereupon he took the controls. As he gave a wing rock, I took my hands off the control yoke, placed them in my lap and took the opportunity to look around, orient myself, and take what I considered a well deserved rest from a stressful situation.

As the traffic cleared, the instructor turned to the base leg, descended and then turned to final about 3 miles out. I was looking out the front windscreen at the airport, and back out the side window trying to pick out landmarks for follow-on approaches. I assumed that the instructor was going to do the first landing and that I would get the rest as he hadn't said a word since taking control of the aircraft. During the final approach leg I was focusing on the

tached to the bottom of the aircraft. Shocked, **those pine trees** visual cues out the front windscreen and

r^ereally close,

the side window – not the instrument panel or the instructor's actions. If I had, I might have noticed the gradual descent on the



altimeter or the vertical velocity indicator (VVI) or realized that the instructor was no longer flying the aircraft.

As I turned to look back out of the front windscreen, there was a tiny voice in the back of my mind that was saying "is it just me, or is the airport higher in the windscreen than the last time I looked; shouldn't it move toward the bottom of the windscreen?" I remember looking out the side window again and thinking, "Boy, those pine trees are really close," just as it happened.

"WHAT THE #@*% ARE YOU DOING?! TRYING TO KILL US?" was all the instructor said as he "fire walled" the throttle and started a climb. He didn't utter another sound, but the brilliant shade of red that his face was turning let me know he was furious. At that point I started to get mad as I realized that no one had been flying the aircraft on final approach and he had almost killed the both of us. Not a single word was spoken as we neared the runway threshold, the throttle still wide open. The instructor didn't chop the throttle to idle until mid-runway, resulting in a very fast, long landing in the last thousand feet of a 5,000 foot runway. We didn't slow to taxi speed until we were halfway between the last taxiway and the end of the runway. The instructor muttered a slew of profanities about missing the last taxiway and not wanting to taxi all the way back from one end of the runway.

Without warning, he swung the aircraft 180 degrees in the middle of the runway and accelerated in the opposite direction toward the last taxiway as another

student was on landing rollout. He shoved the throttle forward and we accelerated to nearly 25 knots as we rapidly approached the other aircraft in an airplane version of "chicken." I could see the other aircraft's nose wheel compress as they broke hard to allow us room to turn onto the taxiway in front of them. He made the turn onto the taxiway in silence and pulled to the far side of the compass rose and set the brakes. Still red-faced and visibly upset, he launched into a 3 to 4 minute tirade about what had happened, how I had nearly killed him, and then asking me why I nearly descended into the ground. The longer he went on berating me, the hotter I got, until I finally blurted out, "I wasn't flying, you were, you never transferred aircraft control; you never told me to take the aircraft!"

As the engine idled, he sat there dumbfounded and speechless. His memory of the last 5 minutes, like the propeller, turned over slowly as the minutes ticked by. Several other students taxied by and took off, as he rewound the events leading up to the near landing in the tree tops. After what seemed like an eternity, but was probably closer to 5 minutes, he turned to me and said:

"You're right, I'm sorry, shake it off and let's go."

I got back on the horse, taxied and took off, but I don't think I succeeded in completely "shaking it off," as the events of the training session up to that point affected my performance for the rest of the flight and the program.

All aircraft accidents are bad, but the crash of a mechanically sound aircraft in

good weather, with a qualified pilot at the controls is particularly regrettable. Controlled Flight Into Terrain, or CFIT mishaps occur due to factors such as: lack of training, inattention, target fixation, disorientation, physiological events, and or a lack of communication between pilot/student.

During the flight debrief, the instructor and I identified the following contributing factors to the near-mishap. The instructor commented that he normally used hand signals with his civilian students and wasn't used to the military's

technique of transferring aircraft control. The instructor said that he thought he had transferred aircraft control/intended to transfer control, but admitted that he failed to confirm positive aircraft control had been passed, and then had mentally "tuned out" and was thinking of things other than

flying/instructing. The instructor noted that after he noticed that the aircraft was dangerously close to the ground, he recovered the aircraft, but then made a bad decision in choosing to salvage a dangerous approach to a landing versus executing missed approach procedures. He also apologized for letting his anger take over and he left too high a power setting in for too long; resulting in a long, high-speed landing. He also agreed that a lack of patience led him to execute a 180 degree turn in the middle of the runway in order to catch the last crossing taxiway and avoid having to taxi to the end of the runway. He admitted that he didn't think before acting and ended up going nose-to-nose with another aircraft on landing rollout – placing both aircraft in danger.

The instructor was responsible for the safe



operation of the aircraft as the pilot in command, but I shared some responsibility for the near-mishap. I made the mistake of treating the flight like a training session and not a progress check. As a result, I mistook the instructor's evaluator questions/actions as animosity and mistrust in my abilities, leading to a lack of, and then a breakdown of communication between us. As a result of the "cold war" that developed between us, I disengaged from the business of flying the minute the instructor took the controls and I became a passenger in the cockpit, completely unaware of the danger until it was nearly too late. Granted, being a student with just over 10 total aircraft hours, it's hard to expect that I would have developed any "air sense," but that's no excuse for me losing my situational awareness (SA) by monitoring the radios, flight path, and aircraft instruments. Had I maintained my SA and kept the lines of communication open, I would've noticed that the instructor had stopped actively flying the aircraft and

Courtesy Photo

I could have "asked the question" prior to the aircraft descending anywhere near the tree line.

There are lessons to be learned on both sides from this incident. Instructors need to: brief the student when they will be instructing and when they will be evaluating, brief and use standardized procedures for aircraft control, maintain their SA and monitor aircraft progress, as well as making good decisions by not placing the aircraft and student in further danger by failing to keep their emotions in check. Students and instructors also need to remember that transferring aircraft control does not relinquish their responsibility for maintaining their SA and the safe operation of the aircraft. Lastly, crewmembers must learn to compartmentalize: leave your private life at the door - focus on the mission and its safe completion from the moment you step into the mission brief until after the debrief; lives depend upon it.







by Anonymous

hat did you do on leave?" my co-worker asked, putting his vacation photos aside. "Oh, we had a cabin on the beach, spent endless days swimming, boating, taking long walks on the beach, and having romantic dinners with no kids too" I replied warily.

Shooting me a puzzled look, he responded with, "I thought you were chaperoning Cub Scout camp this year. Did you get someone else to take over the pack?"

"Oh, I thought you asked what I was doing next summer on leave ..." I responded quickly. "Yeah, this year I took my sons to Cub Scout camp for a week or so, as a matter of fact, I took the whole pack. Yep, six fun-filled days in the hot Texas sun riding herd over a bunch of 8-10-year-olds missing their mothers, is what I did this summer. It went well, and it was very educational too – all because we were well prepared ..." I began. Sensing a story coming on, the others sat back and got comfortable.

"A week before camp started, we had a meeting to discuss what to bring for camp, how to pack it, and what events were going to take place. As the leader, I was responsible for organizing a skit for the last night of camp, and other activities to keep the scouts busy during several free hours, and I figured it was easier to ask the scouts if they had any ideas. It was then that I uttered the words I would soon live to regret: "Does anyone have a suggestion for a skit and extra activities?" I asked.

"Let's start a collection" said one.

"No, medical training" said another.

"Well, we can't do both" I reminded them.

"CRIKEY! We can do all three at once" my oldest piped up in his best Steve Irwin (a.k.a. "The Crocodile Hunter") impersonation, which he had been perfecting since becoming a huge fan of the show the summer before. "We can collect insects, learn about them, give medical treatment if anyone gets bit, and then do a skit about it" he said as the idea spread amongst them like the plague. I'm not a bug or spider person, and sensing I wasn't too excited about the possibility, they all clasped their hands together and began to beg and plead as only 10-year-olds can.

Like a lone wildebeest cornered by a pack of hungry lions on the Serengeti, I knew I was trapped. I realized that trying to stop this idea was about as smart and as likely to succeed as donning a Superman costume and stepping in front of a speeding train. "Okay, we'll give it a shot" I replied weakly. "But you'll have to provide a description, list their habitat, the problem they present, the severity of their bite, treatment, and how to protect against them" I dictated, hoping to make it painful enough to make them change their minds.

The day before leaving for camp, my son and I were taking some camping





equipment out of our storage shed, when he yelled: "Crikey! Isn't she a beauty!?" He quickly dropped an empty mayonnaise jar over top a large Black Widow Spider that had crawled out from under the camp stove I had just moved. After coaxing the spider into the jar, he put a cotton ball soaked in my wife's fingernail polish remover in with the spider and put the top on it. The acetone in the fingernail polish would eventually suffocate the spider so that it could be pinned to a Styrofoam display board, but the spider was still very much alive, and angry. "We'll take it with us, and it'll be the first specimen in our collection: wait'll the guys see this" he yelled triumphantly.

"Wait'll your mother sees it" I replied sarcastically as I carefully checked for more spiders as I finished taking the rest of the supplies out. The car packed, we left early the next day, me driving and my son riding shotgun with his "Death Jar" containing the now dead (hopefully) spider. We pulled up to the meeting place and he jumped out to show off his prize.

"This is a Black Widow Spider" he began, reading from the handbook on insects I had given him. "Its color varies from dark brown to glossy black. It's densely covered with short microscopic hairs, and has a red or yellow hourglass marking on the underside of the female's abdomen. The male does not have this mark and is not poisonous. The overall length with its legs extended is 1 1/2-inches, and its body is 1/ 4-inch wide. In its habitat, it's often found with eggs and web. Outside, it's found in vacant rodent holes, under stones, logs, in long grass, hollow stumps and brush piles. Indoors, it's found in dark corners of barns, garages, piles of stone, and wood. They are found in Southern Canada, and throughout the U.S., except Alaska."

"The problem with it is," he continued, "is that its bite causes local redness, and two tiny red spots may appear. Pain follows almost immediately. Larger muscles become rigid. Your body temperature will rise slightly, followed by profuse perspiration and a tendency toward nausea. It's usually difficult to breathe or talk and it may cause constipation, and urine retention." That last statement caused a low murmur among the gathered scouts. "The venom is more dangerous than a rattlesnake's but is given in much smaller amounts. About 5 percent of bite cases result in death. Death is from asphyxiation due to respiratory paralysis, and convulsions may occur" he added.

"If you get bit, stay quiet and call a doctor. Do not treat as you would a snake bite since this will only increase the pain and the chance of infection; bleeding will not remove the venom. Your best protection is to wear gloves when working in areas where there might be spiders. Destroy any egg sacs you find. Spray insecticide in any area where spiders are usually found, especially under outhouse seats because that's where most bites occur; in outhouses, so check them out regularly. General cleanliness, paint, and light discourage spiders."

"Lesson learned there scouts, the next time a girl yells at you about leaving the seat up, just explain to them that you're just trying to save them from an excruciating, painful death ... let's roll" I added hastily trying to escape the glare from the mothers standing nearby.

Less than 2 hours after arriving, the "Death Jar" had its second victim in its grasp and was making quick work of it as the scouts tried to identify it. The scouts had unfolded a mattress on one of the bunks and uncovered the spider which was quickly trapped. "Here it is, it's a **Brown Recluse Spider**" one of them exclaimed as he began to read its specifics; "it has an oval body with eight legs, and is light yellow to medium dark brown. Has a distinctive mark shaped like a fiddle on its back, with a body from 3/8 to 1/2-inches, 1/4-inches wide, and 3/4-inch from toe-totoe."

"Its habitat" he continued, "they prefer dark places where they are seldom

disturbed. Outdoors: they're found in old trash piles, debris, and rough ground. Indoors: they're found in attics, storerooms, and closets in the Southern and Midwestern U.S. The problem is that their bites produce an almost painless sting that may not be noticed at first. Being shy, it bites only when annoyed or surprised. Left alone, it won't bite. In fact, the victim rarely sees the spider that bites them."

"Within 2 to 8 hours after being bitten, pain may be noticed followed by blisters, swelling, hemorrhage, or ulceration. Some people experience a rash, nausea, jaundice, chills, fever, cramps, or joint pain. The treatment you should follow is to see a doctor. Bites may require hospitalization for a few days, and full healing may take from 6 to 8 weeks. Weak adults and children have been known to die. The best way to protect yourself is to use caution when cleaning secluded areas in the home or using machinery usually left idle. Check firewood, inside shoes, packed clothing and bedrolls because they are frequent hideaways" he finished, taking a look at the spider that was beginning to feel the effects of the fingernail polish remover.

Later that night, as we were cleaning up around camp, my son crept up behind me and slapped me on the back of the neck knocking my hat off. My son reached for the mosquito that lie crumpled on my shirt collar and smirked, "the spider isn't dead yet, so I had to kill him on site" he replied as he headed off to join the others.

"The **Mosquito**" he began, holding it in the hand and the book in the other "has a small, dark, fragile body with transparent wings and clongated mouth parts and varies from 1/8 to 1/4-inch long. It's found in



temperate climates throughout the world where the water necessary for breeding is available. It bites and sucks blood from its victim, and itching and localized swelling result. The bite may turn red. Only the female is equipped to bite" he replied, which was met with several adolescent giggles.

"The danger is that in some foreign countries, yellow fever, malaria, encephalitis, and other diseases are transmitted by mosquitoes, and excessive scratching can cause secondary infections."

"Don't forget to mention the spread of West Nile Virus in this country" I interjected, "you can't be too careful, that's why it's important to stay covered and use an insect spray or lotion with DEET to keep them from biting, and you from getting sick..."

> Dad, I was just getting to that. Resist scratching, lather with soap and rinse to avoid secondary infection, and apply calamine lotion to relive the itching. Prevention includes destroying available breeding water to keep them f r o m

Photo by TSgt Jack Braden

multiplying. Place mosquito nets on windows and beds, use proper repellents, and avoid activities at dawn and dusk to reduce exposure time."

Later, right in the middle of a ghost story, one of the scout's marshmallows erupted into flame and he started screaming. "Tick, tick, AAAAAAAAAH!" was all we heard, as he jumped up, flaming marshmallow on a stick in hand and started running laps around the fire circle – resembling a runner with the Olympic torch. Evidently ticks have an innate sense of drama as they only land on people who are freaked out by them.

"Don't hurt him, we can use him for the collection" was all my son could say as he plucked the still-crawling tick from the other scout's arm and placed it in the "Death Jar." "Ticks are oval shaped with a small head; but the body is not divided into definite segments, and they are usually grey or brown, measuring from 1/4-inch to 3/4-inches long when mature. Carried around by both wild and domestic animals, they are found in all U.S. areas and in parts of Southern Canada, on low shrubs, grass, and trees.

The tick attaches itself to the skin of the host and sucks its blood. Some species can transmit Lyme disease, Rocky Mountain spotted fever, tularemia, and Colorado tick fever. To remove, gently grasp head and tug gently upward with tweezers so none of the mouth parts are left in skin (do not heat or squash tick on the skin). After removal there is danger of infection, especially if the mouth parts are left in the wound. Promptly wash the area with soap and water; and apply antiseptic" my son exclaimed as he closed the book. "How do we keep them away?" the affected scout asked – on the verge of suffering an extreme case of the "heebie jeebies" and warily eying each shrub and tree as being a hiding place for more ticks.

"When you're in brushy areas, leave your pants legs un-cuffed, sleeves rolled down, and by wearing insect repellant" I responded. "We're also going to have to do a 'tick check' each night before going to bed, so take some time to closely inspect and remove ticks attached to your clothes and body at the end of day" I explained, trying to keep a bit of order in camp as day one came to a close.

Day two started way too early with birds singing, a tickling sensation on my face, and a low voice with an Australian accent proclaiming, "I probably shouldn't be doing this, but isn't she a beauty?" I was wide awake in under half a second as my eyes opened and tried to bring the bleary object that was only inches away into focus. What at first appeared to be a small lobster, morphed into a brownish tan scorpion. I instinctively swiped at the scorpion as I bailed out of bed and onto the floor. "Jeez, Dad, you almost broke its tail off" was all I heard as my son and several others ran out of the tent.

My son was holding the still squirming scorpion by the stinger as the other scouts fished the now dead tick and spiders out of the "Death Jar" to make room for the scorpion. "The **scorpion** is crablike in appearance and has claw-like pinchers. Its fleshy post-abdomen or "tail" has five segments, ending in a bulbous sac and stinger, and they can grow from 2 1/2 to 4 inches. The scorpion spends its days under loose stones, bark, boards, and floors of



outhouses. It can burrow under the sand to hide during the day, and roams freely at night, so to avoid getting stung, don't go barefoot at night. They often crawl under doors into homes, and the lethal types are usually found only in the warmest desertlike climate of Arizona and adjacent areas" he read, as another took the lid off the jar.

Fighting to get the scorpion into the jar, and trying to avoid getting stung, my son continued reading, "stings by thrusting its tail forward over its head, and after getting stung, a person experiences immediate pain or burning, very little swelling, sensitivity to touch, and a numbness/tingling sensation. The sting of the Bark Scorpion, found in Arizona, New Mexico, and parts of California near the Colorado river, has additional symptoms such as numbness or tingling of extremities or face, blurry vision, or muscle twitching (children may start to exhibit hyperactivity and have roving eye movements). If you are victim of a scorpion sting, wash the area with soap and water, and apply a cool compress on the area of the scorpion sting. If you develop symptoms of a Bark Scorpion sting, go to the nearest emergency room."

"Hey, this is cool, scorpions will glow brightly when UV light strikes them," another scout shouted reading over my son's shoulder. "Scorpions are basically immune to most pesticides, so if you suspect your house has scorpions, call a professional exterminator. Cats are also considered effective predators to keep scorpion populations down."

I slowly counted to 10, and exited my tent to find the scouts waiting to head to breakfast, the scorpion proudly displayed in the middle of the camp table. "Don't ever do that again," I growled as I grabbed my coffee mug. Breakfast and our first activity of the day went well, but then we had a half hour to waste before archery began, so the scouts went exploring and soon found some wild blackberries.

"Don't move," followed by å loud "slap!" was the next thing I heard as one scout hauled off and smacked another on the back. "Got'em!" he yelled as he and the others headed toward me, a small beanshaped object in his cupped hands. By all indications the bee had met a quick and painless death, his stinger still in place, and his legs pulled up under him.

"Bee, let's see," the scout mumbled as he flipped to the front of the handbook

"Has a winged body with yellow and black stripes, and is covered with branched or feathery hairs. It makes a buzzing sound as it flies and most vary from 1/2 to 1-inch in length. They live in aerial or underground nests or hives, and are widely distributed throughout the world wherever there are flowering plants - from the Polar Regions to the equator. The bee will sting with its tail when annoyed, and burning and itching with local swelling occur in and around the area of the sting. The bee usually leaves the stinger and venom sac in its victim and the venom sac will continue to inject venom through the stinger for 2 to 3 minutes after the stinger separates from the bee's abdomen."

"If a person is allergic, nausea, shock, and unconsciousness may occur. Although more people die from severe allergic reactions to bee stings each year than from snake bites, only a small number of people with bee sting allergies suffer these types of fatal reactions. Those who are known to have severe bee sting allergies should carry a self-injection kit, including antihistamine tablets, for emergency treatment. However, they should still seek medical care after being stung.

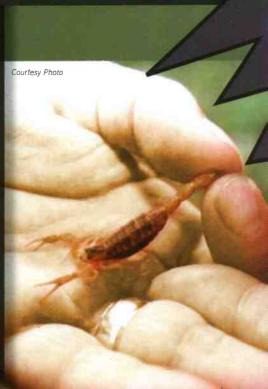
When stung, gently scrape (don't pluck) the stinger to avoid squeezing the venom sac, then wash the area with soap and apply an antiseptic. If swelling occurs, contact a doctor and seek treatment if directed. To protect against bees, locate nests and hives and have an exterminator destroy them. When outdoors, avoid wearing sweet fragrances and bright colored clothing such as yellow, which will attract bees. If you find yourself amongst bees, move slowly or stand still until the bees leave you alone." With the scorpion still occupying the Death Jar, I had to carry the bee specimen with me until it was pinned to the Styrofoam board next to the others.

That night passed uneventfully, and morning came way too quickly. As I was putting on my socks I noticed a band of raised red, itchy welts around my lower legs, starting just above the tops of my socks. "Hand me that book," I said to my son as I sat down in a chair near the fire ring. I started flipping through the book as the others gathered closer, and then backed off when they noticed my legs.

"What's it from?" they asked as I searched the symptom section of the book. "It appears I have been attacked by **chiggers**" I responded as I handed the book to my son, but I don't think you'll get one for your collection, they're pretty small.

As I fought the urge to scratch, my son began reading up on the little buggers, "chiggers are oval with red velvety covering, and they are sometimes almost colorless. Chigger larva have six legs and only feed on warm blooded animals when they are young, while the harmless adults have eight legs, resemble a small spider, and are very tiny - about 1/20-inch long. They're found in low, damp places covered with vegetation: shaded woods, high grass or weeds, fruit orchards, lawns, and golf courses. They are found from Canada to Argentina. Chiggers are fast moving and can travel over 4 feet in less than 15 minutes. They are attracted to areas where the skin is thinner: folds around the ankles, backs of knees, waist and underarms. They attach to the skin by inserting their mouth parts into a hair follicle, injecting a digestive fluid that causes cells to disintegrate, and then they feed on the digested cell parts - contrary to belief, they do not suck blood."

Taking a second to remind me not to scratch, he continued with "the degree of irritation varies with individuals; however, the itching sensation normally begins several hours after contact with chiggers and is the body's reaction to the secreted





enzymes. Along with the itching, small red welts appear in the affected area and secondary infections may follow if the chigger bites are scratched open and not kept clean. Treatment of chiggers includes lathering the affected area with soap and rinsing several times to remove chiggers. Severe lesions may require an antihistamine. The best way to prevent chiggers is to apply proper repellent (insect repellents, and powdered sulphur, called sublimed sulphur or flowers of sulfur are available) to clothing, particularly near uncovered areas such as wrists and ankles. Spray or dust infested areas (lawns, plants) with suitable chemicals to reduce your chance of exposure to chiggers."

"But what can I do for the itching in the meantime?" I asked.

"Not a whole lot; there are some lotions available to reduce the itching, but it says that time is the best medicine as your body works to breakdown the chigger bite" my son replied. I donned my socks and shoes and we headed off to breakfast and the rest of day two.

Day two passed uneventfully as did the next three as the scouts worked on presenting the insects they had gathered and putting the finishing touches on the skit, to include the "scorpion wake up call" – which drew laughs every time. The



scout's parents arrived on the final day to cheer on the scouts during their field day, and to watch the skits around the campfire. The scouts proudly showed their parents around the camp and were about to bring out their insect collection when one of the mothers let out a blood-curdling scream that brought us all running.

"Cool, Dad, can we catch it?" my son yelled as he waved me over.

"Whoa! Ah, no way son, just leave it alone!" I yelled as I caught a glimpse of an unlucky **tarantula** that had been cornered by a ring of scouts. "I am not getting anywhere near that thing, forget about it, remember about me not liking spiders?" I yelled over my shoulder as I headed back to my tent.

"Forget about what?" my wife asked as she wandered over to where the scouts were. My son began begging for her to catch it, and the next thing I heard her say was, "your father is being a big baby, go get me the jar." For what seemed like an eternity, there were excited shouts, squeals, and shouts of "chase him back this way" as I cleaned up around camp, taking a few opportunities to tell them to leave the poor thing alone.

About a minute after hearing a chorus of "yeah, Mom!" they all arrived back in camp, with my wife triumphantly holding the "Death Jar's" latest victim, one very large, hairy, upset tarantula. She teased me with the jar until I reluctantly took it from her as she picked up the handbook. "You guys can put that in your skit for tonight and then you can pass the jar around the audience – Tarantula," she began. "It's a large dark "spider" with a furry covering and it can grow to be 6 to 7 inches in diameter. They are found in the Southwestern U.S. and the tropics, but only the tropical varieties are poisonous. Bites produce a pin-prick sensation with negligible effect, and they will not bite unless they are teased. Its bite is usually no more dangerous than a pin-prick, having only local effects. To treat it, wash the bite area and apply antiseptic to prevent the possibility of secondary infection. The tarantula is harmless to man, and is beneficial since it destroys harmful insects."

The capture of the tarantula was the highlight of the day and the scouts brought it with them everywhere, including lunch where I had to babysit it while they did clean up duty. That night, their skit was a rousing success; my wife came out as the hero that saved the day and I was portrayed as being cautious (read afraid/chicken) throughout the great tarantula campaign. They won praise and prize for the "best skit" as well as "most original and informative." We all learned about the bugs that bite, how to spot them, and how to stay safe around them, and that's how I spent my summer vacation" I finished, propping my feet up on my desk and giving my coworker a "beat that" look.

"Did I mention that on the flight back from Hawaii, we stopped off and caught the Reno Air Races before picking up the kids at my mother's?" he asked with a grin.





MEMORANDUM FOR ACC DIRECTORS AND NAF/WING COMMANDERS SUBJECT: ACC Motorcycle Safety Policy

1. In the past few years, there has been a significant increase in the number and severity of motorcycle mishaps throughout the Air Force and ACC. Aware of this alarming increase, we emphasized reducing risk to riders to protect our most valuable resource -- people. Motorcycle safety policies on training, mentorship, and counseling were formulated and issued. We are now merging our motorcycle safety policies into a single document.

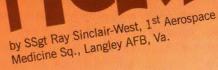
2. The motorcycle safety training policy remains unchanged. Commanders will continue to ensure that all military and civilian motorcycle operators assigned to our installations comply with all DoD and AFI motorcycle training requirements. All military personnel must accomplish DoDspecified motorcycle training before they operate motorcycles on or off base, on or off duty. All DoD civilian personnel must accomplish DoD-specified motorcycle training before they operate motorcycles on base. There is only one exception to this policy: Licensed operators may be granted a 72-hour temporary registration (prior to completing the DoD-specified training) as long as they are scheduled to attend the training class within that 72-hour period. The temporary registration is strictly for the purpose of allowing members to get their motorcycles to the training location on the day of training.

3. The requirement for squadron commanders to personally conduct one-

on-one counseling sessions with the motorcycle riders in their unit also remains unchanged. Our best hope to reduce our rate of motorcycle mishaps is to convince our members to obey the law and maintain high standards of conduct and self-discipline while riding motorcycles. As a minimum, this counseling will address standards of conduct, professional behavior, and proper protective equipment requirements. Commanders must also emphasize motorcycle rider self-discipline, responsibility, and personal risk management. Counseling will be accomplished before newly assigned operators are authorized to ride on any military installation.

4. All squadron commanders will continue to assign at least two experienced riders from the unit to mentor their novice riders. If there are insufficient numbers of experienced riders in the unit, solicit support from other on-base units to help. We need experienced riders who have been riding safely for years to share their experiences and professionalism with others. Also, continue to look closely at your formal and informal base motorcycle clubs or organizations. Ensure that these organizations meet the needs of your riding population and that they provide effective and mature leader-wingman role models for all riders, but particularly our new motorcycle riders.

5. Thanks again for your continued leadership and support as we press forward to enhance rider development and protect our people through mishap prevention. Continued and engaged leadership will maintain our focus on motorcycle safety.



don't

Illustration by: SrA Alex Sotak

ith the arrival of summer, it is time once again to think about regularly checking your body for ticks. Ticks are not just unappealing insects — they can transmit diseases, including Ehrlichiosis, Lyme disease and even Rocky Mountain spotted fever. In addition, some people can have allergic reactions to the tick bite itself. What can you do to avoid these creatures? When going into wooded areas, wear clothing that will cover most of your skin (long-sleeved shirts and long pants). Light colored clothing will help you to spot the ticks and remove them before they reach your skin. Tuck the bottom of your pants into your boots or socks and apply insect repellent that contains DEET around that area and to your exposed skin. Prevention is the best method of avoiding disease.

If you find a tick on you, follow these steps in removing the tick:

Use blunt forceps or tweezers.

Grasp the tick as close to the skin as possible and pull upward with a steady, even pressure.

Try not to squeeze, crush, or puncture the tick.

² Do not handle the tick with your bare hands because infectious agents may enter via mucous membranes or breaks in the skin.

² Do not try to kill the tick with alcohol or smother it with lotions or any other such products. This will cause the tick to get agitated and release infectious agents as it tries to escape.

Likewise, do not try to make the tick detach itself by using extreme heat from a match, lighter, or cigarette as this will most likely cause injury to yourself.

After removing the tick, thoroughly disinfect the bite area with antiseptic and wash your hands thoroughly with soap and warm water.

Try to keep the tick. Place the tick in a small sealed container and bring it to your local Public Health office or primary care manager for identification. If the tick is alive, it can be sent to a lab for testing to see if it does, in fact, carry any infectious bacteria.

One of the most common diseases ticks carry is Lyme disease. The classic initial symptom of Lyme disease is a small red spot that expands, producing a "bull's-eye" lesion. Some other symptoms of Lyme disease are rashes, muscle and joint aches, stiff neck, fatigue, fever, facial paralysis (Bell's palsy), meningitis, and joint pain or swelling. If you feel you may have Lyme disease, see a physician promptly and get checked out. Treatment is with antibiotics. The "deer" tick, which normally feeds on the white-tailed deer and other mammals or birds, is responsible for transmitting Lyme disease bacteria to humans in the northeastern and north-central United States. On the

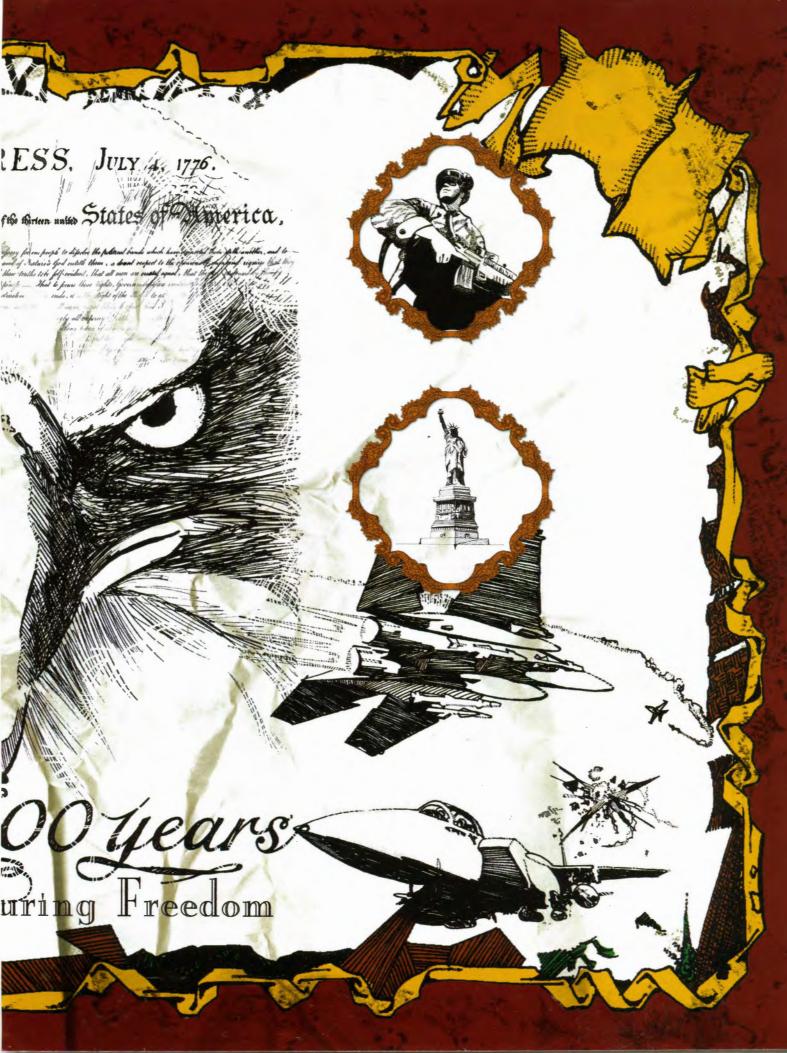


Pacific Coast, the bacteria are transmitted to humans by the western "blacklegged" tick. Researchers widely believe the tick must be attached for at least 24 hours before it will transmit disease, so frequent body checks and guick removal are important to prevent disease. In the southeast, Rocky Mountain spotted fever is transmitted by the "American dog" tick, the "lone star" tick, or the "wood" tick. The disease name is actually a misnomer because North Carolina reports the most number of cases. The tick must be attached for 4-6 hours before transmitting the bacteria that cause the disease. Symptoms usually show up 3-14 days after the tick bite, and can include high fever, deep muscle pain, severe headaches, malaise, and a red rash, beginning on the extremities. Again, if you have these symptoms, you should visit your primary care manager.

Ehrlichiosis, or HME (Human Monocytic Ehrlichosis), as it is sometimes called, is an emerging disease caused by bacteria, and is believed to be transmitted by the "lone star" tick. Most confirmed cases come from the southeastern and south-central United States, with the most recent cases being reported in the Maryland and Chesapeake Bay areas. Symptoms of the infection include nausea, aches and pains, vomiting, diarrhea, and a nonproductive cough. Any suspicion of HME should be quickly treated by your doctor, even before serological testing confirms infection. For more information on these diseases, visit the Web site <u>www.cdc.gov/</u> <u>ncidod/</u> and click on vector-borne infectious diseases. Also, find out more about Ehrlichiosis at <u>www.cdc.gov/ncidod/dvrd/</u> <u>disinfo/disease.htm</u> and Rocky Mountain spotted fever at www.astdhpphe.org/infect/ rms.html. Check the links for specific information, or call your local Public Health office or primary care manager.

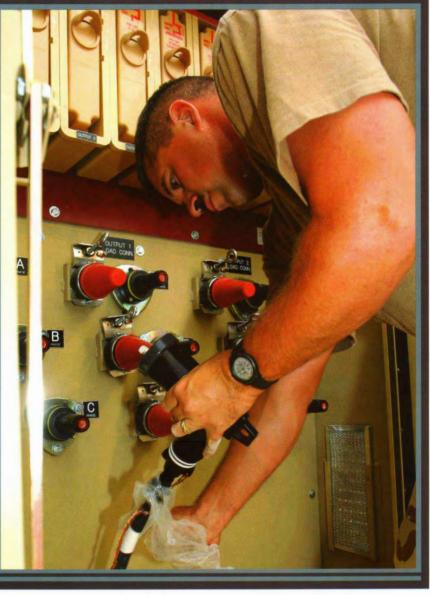






LOCKOUT Electrical Safety by Mr. Daryl Hammond, P.E., Tyndall AFB, Fla. Protos by Ssgt William Greer

The air temperature exceeds 30.000°F. metal vaporizes, and high intensity UV radiation. X-rays, and a pressure wave are created with the release of over 1-million joules of energy ... a nuclear detonation? No, it's an electrical arc flash created when conductive objects such as wires, connectors, or tools get too close to a high amperage Electrical source. workers are faced with this danger every time they work on energized electrical equipment. An arcing flash releases tremendous energy, which explodes outward from the point of contact resulting in high temperatures that easily melt metal and copper wire, vaporizing it into plasma that conducts and is splattered through the air like shrapnel. The associated pressure waves can damage



hearing or knock workers off ladders, and the flash is intensely bright; bright enough to damage eyesight.

Exercising safe working practices and wearing proper protective equipment (PPE) are imperative. Complacency and noncompliance with regulations, safety procedures, and technical order guidance is not an option ... as there are often no second chances.

Dying to Get the Job Done

In the past year, the Civil Engineering (CE) electrical career field has experienced nine on-duty mishaps. Two of their finest have died: an Osan

AB electrician while troubleshooting a transformer and cable insulation he thought was de-energized, and a Robins AFB electrician when a man-lift he was on overturned. Additionally, seven other electricians, both military and civilian, have been shocked and burned while working on energized equipment.

These statistics are both staggering and unacceptable. CE identified the top six causes of these electrical mishaps as failures to take the proper actions when working around high voltage. They were identified as failures to: test for voltage, ground circuits and/or equipment, follow lockout/ tagout procedures, use appropriate technical orders (T.O.s), wear personal PPE, and seek supervisory assistance when performing tasks above expertise level. These certainly seem like pretty basic causes

that can easily be applicable to any Air Force specialty where people work with electricity.

Using properly rated voltage meters and other testers is the only way to ensure power is off. Make sure meters work before and after testing. Many accidents have occurred when electricians took for granted their test equipment was working correctly when it actually was defective. Proper procedures and common sense tell us to ground phase conductors or circuit parts before touching them. By doing so, any stray voltage or current can be safely diverted to ground.

Energizing a circuit before work is completed results in catastrophic consequences ... make sure power stays off until the work is complete by strictly following lockout/tagout procedures. Ignoring or not following appropriate guidance such as those included in T.O.s results in equipment damage, injury, and death. Therefore, it is imperative that written guidance and procedures are used each and every time maintenance on equipment is accomplished.

Electrical mishaps can occur even when proper safety procedures are followed. Wearing proper PPE can prevent serious injury or death, but many electricians fail to take the time to wear the proper clothing when they begin a task. Is it laziness, "have to get the job done attitude," or overconfidence? Maybe a combination of all three ... so take the time to plan and execute the job safely.

It's Not Luck

It's easy to blame Murphy or bad luck when things go wrong, but not knowing what to do when the unexpected is encountered and the worry of looking stupid by asking for help are ingredients for electrical disaster. Stay focused, alert, ask for help when needed, and take the time to do the job both correctly and safely.

Back to the Basics

What are the basics of establishing an electrically safe work environment for anyone working with electricity? The answer is simple ... ensure work is accomplished only on de-energized conductors or circuit parts that have been properly and safely isolated. Unfortunately, many electricians believe that de-energizing circuits is not necessary, too difficult to coordinate, or will jeopardize the mission. Many also believe that low voltage circuits can be worked on without de-energizing, when, in fact, exposure to as little as 50 volts could be fatal while exposure to anything over 240 volts has a high probability of being fatal.

Crew leaders and supervisors at all levels should review and ensure the following basic procedures are adhered to and are regularly briefed to all personnel because working on de-energized circuits, conductors, or circuit parts, establishes the safest environment for electrical workers. Let's review the basics:

1. Determine all possible sources of electrical supply. Just don't look at the obvious incoming feeders, but alternate sources of supply to the circuit, i.e., generators, tiebreakers or other circuit switches.

2. Properly open all disconnecting means for each source. Operate disconnects, turn off switches or circuit breakers, or remove components from the circuit.

3. Apply lockout/tagout devices. Make sure all sources cannot energize the circuit and there is no chance to bypass the locking devices installed.



Maintain custody of locking keys.

4. Verify all circuit parts are de-energized. Visually verify circuit breakers or blades of disconnecting devices and use an adequately rated voltage meter to ensure circuits are "dead." Verify voltage meters or other testing devices are operating satisfactory before and after each test.

5. Ground all phase conductors or circuit parts before touching them. This is the only way to make sure any stray voltages or currents are passed to ground. Don't ignore this step!

6. Follow established procedures outlined in any T.O.s for equipment. Do not take shortcuts or second guess procedural guidance.

Energized Circuits — A Last Resort

Although it may be necessary to troubleshoot and/or test equipment on energized equipment, attempting to effect repairs or perform maintenance on energized conductors or circuit parts is prohibited in the CE career field except in rare circumstances. CE guidance states that if absolutely necessary, it should be accomplished with extreme caution and only when justified and approved by the Base Civil Engineer (BCE) to support a critical mission, prevent injury to persons, or protect property. It puts electrical workers in harm's way when they are required to work on those circuits; therefore, the following basic energized work procedures must be followed and reviewed with all personnel:

1. The BCE must approve live work in advance. Justification for why the work must be performed in an energized condition is needed.

2. Use two-person teams to perform work.

3. A qualified supervisor must be consulted and they must approve any plan to work on energized equipment and ensure proper use of PPE.

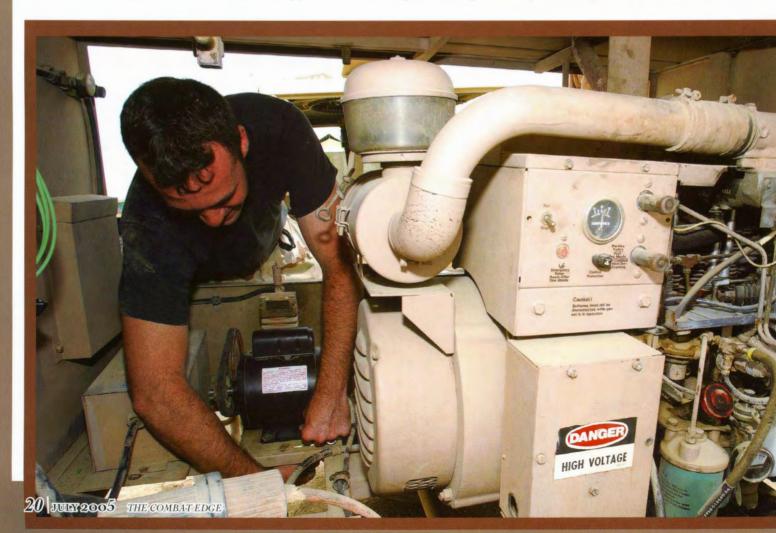
4. An Energized Work Permit or authorization must be prepared in advance and, as a minimum, include the following:

a. <u>Description of work and lo-</u> <u>cation</u>. Workers should know where they're working and what they're supposed to do. A qualified supervisor must be consulted and approve any plan to work on or near energized equipment.

b. <u>Description of work practices</u> to be followed. A qualified supervisor must discuss with each worker all aspects of the task to be performed. An open and clear dialog between supervisors and workers will help eliminate ambiguities concerning what actions need to be accomplished and who is responsible for completing those actions, while considering all "what if" possibilities and contingency plans to handle them.

c. <u>Electrical shock hazard analysis</u> and working boundary determination. An analysis needs to be accomplished to determine the voltage that workers will be exposed to, safe boundary distances, and the PPE necessary to minimize the possibility of electrical shock.

d. <u>Arc flash hazard analysis and</u> <u>flash boundary determination</u>. This analysis is done to protect workers from the possibility of being injured by an arcing flash. The flash protec-



tion boundary, which is the approach limit distance from exposed live parts from which a worker could receive a second degree burn if an electrical arc flash occurred, and the PPE workers should wear when working within this boundary shall be accomplished by this analysis.

e. <u>Necessary PPE to safely per-</u><u>form the task</u>. Wearing proper PPE is the single most important action a worker can take to protect him/her from potential electrical hazards. It is the supervisor's responsibility to ensure each worker has the proper PPE to accomplish the job and that it is in good condition. This is often not an easy task for supervisors who must determine the task hazard/risk category and appropriate level of PPE that the worker must use.

One final note about using PPE; adequate and proper PPE is both a supervisor and worker responsibility. Supervisors must be aware of the different types of PPE, inspection and serviceability requirements, and promote a positive and compliant attitude regarding its use. They must also emphasize that job safety takes precedence and workers should not be rushed to start, or complete a task. Workers have the responsibility to know how and when to use PPE as well as its limitations and other safety precautions associated with each piece of their protective equipment.

f. <u>Means to restrict access of</u> <u>unqualified persons in the work area</u>. Barriers, marking tapes, or other means must be implemented to keep bystanders or other unqualified personnel from entering limited, restricted, and prohibited approach boundaries.

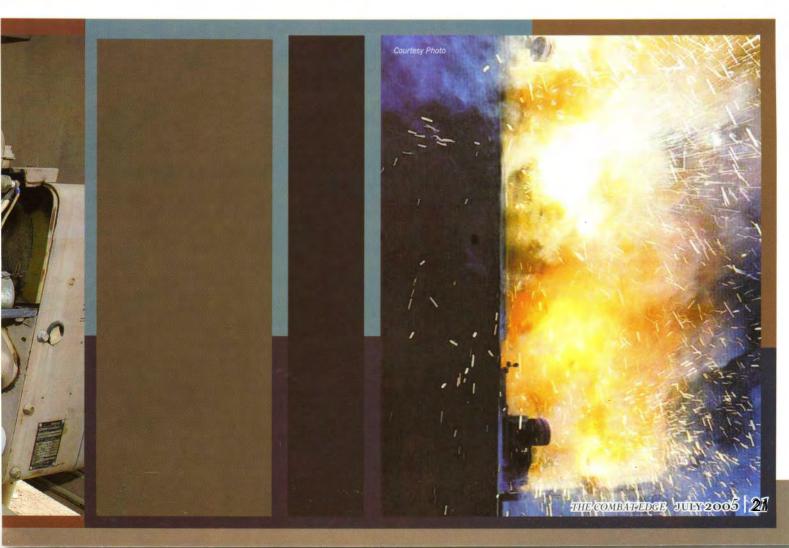
g. <u>Evidence of completing the job</u> <u>briefing</u>. Supervisors must document all energized work briefings.

Be Informed

Both supervisors and workers alike should be aware of the regulations and guidance associated with electrical safety. AFI 32-1064, *Electrical Safe Practices*, is a high level document providing standards and references for electrical safety. Engineering Technical Letter (ETL) 04-15, *Electrical*

Safety Guidance, provides detailed electrical safety guidance and requires compliance with Unified Facilities Criteria (UFC) 3-560-02, Electrical Safety, and National Fire Protection Association (NFPA) 70-E, Standard for Electrical Safety in the Workplace. AFI 32-1064, ETL 04-15, UFC 3-560-02, and NFPA 70E collectively provide a comprehensive knowledge source for all electrical safety issues and guidance for establishing a safe electrical working environment. AFI 32-1064, ETL 04-15, and UFC 3-560-02 are available on the HQ AFCESA website, http: //www.afcesa.af.mil and experts at HQ AFCESA are available to interpret.

Finally, electrical safety requires both a positive and safety compliant attitude. It's not always about being easy, fast, or embarrassed about wearing PPE or following T.O.s; it's about doing the right thing while complying with all equipment and safety guidance to keep yourself and fellow workers from getting injured or killed. Be safe to stay alive!



ROAD

by Mr. Vince Dotson, Barksdale AFB, La. Photos by SrA Alexander G. Sotak

It's summer and, for most of us, that means a vacation is somewhere on our horizon. A wellplanned and well-executed road trip can be a great way for all of us and our families to enjoy this time of year. Vacations are opportunities to visit friends and family and can be educational, as well as fun. The key to our success in creating pleasant and safe memories is planning.

The following scenario is not the experience you want to put in your family's scrapbook this year:

Friday! Ahhh, it's the weekend! Finally, the chance to take a break is here. Work's over, the boss is off my back, and the munchkins are out of school. Need to get to Orlando.

The kids want to go to the Magic Kingdom and Universal Studios. The wife says there's a festival in Atlanta that's a must. Hmmm ... not on leave, but if I average 79.5 miles per hour for 12 hours a day and the rest breaks are like Indy pit stops, we can make it.

OK, the car's packed. Not enough room in the trunk and the back window is full. No problem. I've got lots of rope – we'll just tie the excess to the roof. Man, why do the kids want to bring so much stuff? Well, they usually lose weight on a trip; we'll have more room on the trip back.

Two hours away from home, I get the bad news from my copilot. You got the maps? ... What do you mean, you thought I brought them? Great!!!

Three hours out, the kids start hol-

lering about clothes in the road behind us. Wait a minute! That's my stuff that truck just rolled over. Should have tied better knots or used more rope.

Four hours on the road, and Alabama's traffic is barely moving. Why is it that the speed of the vehicle in front of you drops by 10 percent for each gray-haired person in the car?

Six hours and we're two states over. Got to make up time. Oh no! Speed trap! That was a hefty fine. Lucky I was slowing down when he tagged me.

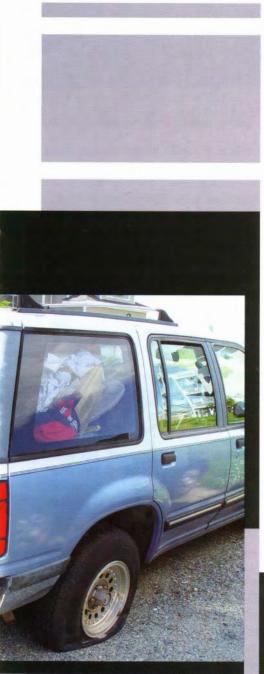
Eight hours and I'm getting tired. Need to keep on pushing though. Only got 2 days and 2 hours left to have fun. What's that smell? I didn't know dogs got carsick!

Ten hours and we're still cruising. Sure wish I had a map. Well, we can make better time on these back roads. Yes dear, I hear a grinding noise from the engine too! ... No, I don't know what's wrong! ... We'll just slow down and pull off at the next town. OK, what's that sign say up ahead? Barksdale AFB?!! From the back seat, a voice calls out, "But Dad, we just came from there!" Copilot says, "I told you to take a right in Mississippi!"

Eleven hours on the road and we limp back into the driveway. No spare clothes, no Universal Studios, and no Magic Kingdom. I never did like festivals anyway.

Next time I take a road trip, things are going to be a lot different! Maybe I'll stop by the Safety Office and get some tips. Naw! There's nothing wrong with my planning -- I'll send my copilot instead!

and wing. hicle ht for states OK, what's that sign say up a



If this story sounds a little too familiar, you definitely need to talk to a Safety representative. There are way too many "what's wrong with this picture" elements in this scenario. Avoid most of them by using the following risk management tips to start your vacation planning:



~ Get some rest. One-sixth of all accidents can be attributed to inattention and fatigue; therefore, prevention is the key for avoiding sleep-related crashes on the road. Before you begin a trip, get a good night's sleep (the average person requires about 8 hours of sleep per night). Plan to drive long trips with a companion, as passengers can help look for early warning signs of fatigue or switch drivers when needed. Passengers should stay awake to talk to the driver. Schedule regular stops every 100 miles or roughly 2 hours. Avoid alcohol and medications (overthe-counter and prescribed) that could impair performance.

 \sim Buckle up and wear seat belts. Not only is this the law, it's also good common sense. Seat belts help reduce stress by keeping you securely in the driver's seat, and they reduce the extent of injuries if a crash does occur. Ensure all your passengers wear their seat belts too.

 \sim Prepare your car. Take your car in for a complete maintenance check-up before you leave on any long trip. Be certain it's mechanically safe and sound.

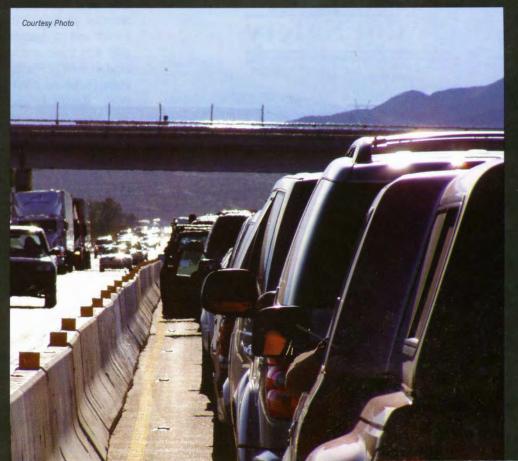
 \sim Pack the car carefully. Balance the load and don't obstruct your ability to see out the windows.

~ Expect the unexpected. Even if you are an expert driver, unexpected events, such as a tire blow out at highway speeds, can result in a sudden loss of control. A lapse of attention on your part -- no matter how short -- can cause a mishap. Take extra care and caution when approaching an intersection where your signal has just turned green because a lot of drivers run stop lights.

 \sim Control your emotions. Don't let traffic and other drivers get to you. Stay well rested and leave the emotions at home. Remember that you're supposed to be enjoying yourself.

~ Don't let your guard down. When you reach your destination, check the location for hazards. Do this for hotels as well as amusement parks. A vacation is no fun if you or a family member are injured and trying to heal.

Vacations are supposed to be a pleasant experience. Too many mishaps are not accidental and can be prevented. It only takes a few minutes to plan and be "safety smart." By doing so, not only will we have a fun and exciting 2005 summer, but many more to come.



MONTHLY AWARD WINNERS



The crew of Sentry 02, E-3 AWACS, began an 8-hour training sortie with Col Collins, the 552 ACW vice wing commander, flying as the aircraft commander with 1Lt Daniel as copilot and Capt Hattemer, the IP, in the observer's seat. Shortly after takeoff, the crew heard a loud bang from the left side of the aircraft as it passed through 5,000 ft MSL. With engine instruments showing a loss of thrust on the number two engine, Col Collins quickly applied control inputs to maintain coordinated flight. He began to level off at 5,500 ft MSL, directed the copilot to declare an emergency and obtain an altitude block of airspace. The FE verified the loss of the number two engine on his instrument panel and in coordination with Col Collins, the "Engine Failure/Fire Checklist" was run, and the FE shut down the failed engine. The #2 Exhaust Gas Temperature (EGT) continued to rise after moving the throttle

to cut-off, and within seconds, the EGT exceeded maximum indicator gauge limits and the OFF flag appeared, indicating temperatures greater than 700 degrees C. Simultaneously, the engine fire warning bell blared with the illumination of the #2 fire warning light. The FE discharged the fire bottle into the engine and prepared to discharge the second bottle when the fire light extinguished 20 seconds later. The copilot requested a turn to a local holding fix, and the crew began a slow climb

to 11,000 ft MSL. While in holding, the crew reviewed the three-engine landing checklist. Their preparation resulted in a flawless 3-engine approach to an uneventful landing. The crew maintained aircraft control, executed checklist procedures, and safely handled a catastrophic failure during a critical phase of flight to a successful recovery.



Col Timothy J. Collins, Capt Walter C. Hattemer, 1Lt Mikel S. Daniel, 1Lt Maurice A. Scales, TSgt Joseph C. Huffman, 963rd Airborne Air Control Squadron, 552nd Air Control Wing, Tinker AFB, Okla.



pproximately 1 hour into the sortie, Raptor 1, a single F/A-22 experienced an increase in aircraft buffet. Raptor 2 performed a battle damage check and concluded the leading edge and trailing edge flaps had deployed unexpectedly. Electing to perform a controllability check above a 10,000 ft MSL under cast deck, Raptor 1 lowered his gear handle and received an unsafe gear indication. Raptor 2 confirmed that none of the gear had extended and Raptor 1 confirmed a red light in the handle. The pilot immediately initiated checklist procedures to include cycling the gear handle. The gear did not extend and the pilot began the emergency gear extension checklist. The pilot executed the emergency gear extension checklist and was able to get the gear to extend. Raptor 1 (with Raptor 2 in chase) began an ILS approach to RWY 21. Upon entering the weather Raptor 1 and 2 experienced moderate mixed icing and had to accelerate their descent. While in the weather passing 7,000 ft MSL, Raptor 1 lost all primary

navigation and communications and functionality (including primary radios and ILS and TACAN). Raptor 1 began to execute a level off above the MSA when he broke out of the weather at 5,000 ft MSL. Raptor 1 successfully reset the comm and navigation system. Raptor 2 confirmed Raptor 1's gear was down and locked. Raptor 1 then cleared Raptor 2 to land in front of Raptor 1 due to both aircraft being in a low fuel state (at/below divert fuel) which was induced by increased drag. Raptor 1 flew a flawless straight-in approach to RWY

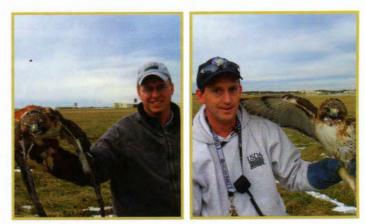
21. Upon touchdown, the pilot had to control the aircraft through differential braking; a consequence of an emergency gear extension is that the pilot has no nose wheel steering available. Throughout the entire emergency, the pilot maintained aircraft control and situational awareness while expertly handling several aircraft problems.



Maj Alex A. Grynkewich, 59th Test and Evaluation Squadron, 57th Wing, Nellis AFB, Nev.



r. Stewart and Mr. Borrowman have provided outstanding support to the 509th Bomb Wing. They have dispersed over 2,552 red tail hawks, significant enough in size to cause major damage or catastrophic failures which could bring down an aircraft. They have also harassed 127 other birds of prey. Since the start of this guarter they have relocated 43 birds of prev which added to the new Whiteman record of 81 birds relocated since October 2004. The number of red tail hawks has increased for the quarter in comparison to the second quarter of 2004. They have expended over 3,696 rounds of pyrotechnics and live ammunition used for harassment of these avian nuisances this guarter. Due to the diligence of these two individuals on the airfield, only one nonrate producing red tail hawk strike has occurred this quarter. Mr. Stewart and Mr. Borrowman recently completed a deer removal tasking in which they harvested 13 deer from the airfield; eliminating the risk of a wildlife strike to an aircraft on the runway. They prepared the animals for processing and donated over 1,000 pounds of meat to local charities. They coordinated and conducted an airfield burn of 160 acres. which reduced the safe habitat for small vermon. This reduction in habitat will result in a decrease in food source for the raptors, thus reducing the number of raptors in the area. Mr. Stewart and Mr. Borrowman are always proactive in the Bird Aircraft Strike Hazard (BASH) community; they provided bird identification and pyrotechnics training to nine Airfield Management individuals increasing the number of trained members of the BASH team. Procured funding, acquired and installed starling traps around the airfield due to the enormous numbers of European starlings migrating through the area. Coordinated with the base dining facility manager to receive all bread items going to waste to use as bait for the starling traps. Several hundred starlings have been eliminated from the airfield due to their resourcefulness and ingenuity. The ceaseless efforts of these two professionals make Whiteman AFB a safer place to operate the world's premier bomber, providing proven combat capability to the Air Force at a moment's notice.



Mr. Todd Stewart and Mr. David Borrowman, 509th Bomb Wing, Whiteman AFB, Mo.

(DSV's) out of 149 total inspections. The 5 MXS was lauded by inspectors during an ESOHCAMP/ACC PME inspection when the Fuels section and Structural maintenance section's Respirator Protection Programs were noted as "Best seen in ACC." Maintainers also contributed to the wing's lowest number of findings (121) of any ACC unit for an ESOHCAMP inspection. Unit Safety Representatives leaned forward in developing a new, extensive Safety Program for the squadron incorporating an expanded Lockout/Tagout program, vehicle safety checks, and ORM awareness. Due to the dedicated efforts of the 5th Maintenance Squadron, sortie rates continued to remain above the standard while keeping on pace with the ACC 50 percent reduction goal in Class "A" mishaps for FY 05.

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



The hard charging, dedicated professionals of the 5th Maintenance Squadron demonstrated a high level of expertise and safety awareness in support of the demanding B-52 flying mission. Two major inspections in early April confirmed the 5 MXS dedication to highest safety standards. The HQ ACC LSET inspection cited strong leadership, focused supervisors, and committed technicians which achieved impressive pass rates to include zero Detected Safety Violations

MONTHLY AWARD WINNERS



Award of Distinction

While the aircrew of B-52 aircraft 60-058 was shutting down engines, Airman Beckett noticed wisps of smoke emanating from the right forward landing gear. Instantly recognizing the danger, Airman Beckett leapt into action and directed one of his assistants to evacuate the flight crew from the aircraft while the other shut down the ground power unit. With the other members of his recovery crew . occupied, Airman Beckett instinctively positioned the ground fire extinguisher unit near the affected gear in anticipation of a worsening situation. Seconds later, the number four brake suffered a massive hydraulic leak which sprayed onto the hot brakes and erupted into flames; engulfing the wheel well in fire. Fire extinguisher in hand, Airman Beckett swiftly moved to combat the raging inferno; keeping the flames away from

the main entry hatch until the flight crew had safely egressed the aircraft. Once the flight crew had cleared the area, Airman Beckett quickly repositioned the extinguisher to better combat the flames and continued with his assault. Airman Beckett extinguished the blaze and waited with the aircraft until the fire

department took charge of the scene. After briefing the responding firefighters, Airman Beckett personally checked each individual in the vicinity of the aircraft to ensure nobody had been exposed to the toxic extinguishing agent. A1C Beckett's decisive actions and calm professionalism under stressful conditions saved the lives of 5 crewmembers and their aircraft.



A1C John P. Beckett, 2nd Aircraft Maintenance Squadron, 2nd Bomb Wing, Barksdale AFB, La.



haplain Dan Forman was assigned as deployed chaplain during the 509th Bomb Wing's first-ever Air Expeditionary Force deployment. The support Chaplain Forman provided to the deployment was not limited to spiritual needs of deployed members but also to the safe accomplishment of B-2 operations. On 10 Mar 05, Chaplain Dan Forman was invited to watch a B-2 Low Observable team replace aft deck tiles on a B-2. During the process he gained valuable knowledge concerning the significance of the tiles and the appearance of correctly installed tiles. Subsequently, Chaplain Forman was able to put this new-found knowledge to use while on a KC-135 incentive ride supporting B-2 refueling operations on 23 Mar 05. Chaplain Forman was able to observe the refueling from the boom pod of the KC-135. While watching the second B-2 (Death 12) close to contact, Chaplain Forman noticed what appeared to be a white spot on the trailing edge of the aircraft. While the B-2 was in the contact position Chaplain Forman was able to get a better look with his camera and noticed an aft deck tile was missing. He informed the boom operator and

insisted that the B-2 crew be notified. Following notification, the B-2 aircrew disconnected from the tanker and returned to Andersen uneventfully. Upon landing, one hot-trailing edge tile was discovered missing with two other tiles damaged. The B-2 was scheduled to fly for another 3 hours and then accomplish an engine-running crew change for another 7-hour sortie. Since tiles are not inspected between flights during enginerunning crew changes, the missing tile and damage would not have been discovered for another 11 hours of engine operation.

The continued flight with the damaged aft deck could have led to more serious damage and a possible aft deck fire. The superior situational awareness, attentiveness and keen understanding of the B-2's aft deck enabled Chaplain Forman to avert what could have been a more significant disaster with a precious national asset.



Capt Daniel W. Forman, 509th Bomb Wing, Whiteman AFB, Mo.

ACC SALUTES SUPERIOR PERFORMANCE

Maj Robert S. Gardner U-2 Instructor Pilot 99th Reconnaissance Squadron 9th Reconnaissance Wing Beale AFB, Calif.

Lt Col Chris Spagnuolo Instructor Pilot Capt Xaviera Fontan Weapons System Officer 334th Fighter Squadron 4th Fighter Wing Seymour Johnson AFB, N.C. Capt Frank J. Lobash Capt Shane D. Steinke F-15E Instructors 17th Weapons Squadron Tyndall AFB, Fla.

A1C Charles E. Marshall Weapons Load Crew Member 4th Aircraft Maintenance Squadron 4th Fighter Wing Seymour Johnson AFB, N.C.

SSgt Victor J. Mercado Dedicated Load Crew Chief 57th Aircraft Maintenance Squadron 57th Wing Nellis AFB, Nev.



MSgt Bryon T. Osborn Production Superintendent 49th Aircraft Maintenance Squadron 49th Fighter Wing Holloman AFB, N.M.

MSgt Carl Anderson SSgt Gregory Kuzinski SrA Michael Wang Weapons Load Crew 57th Aircraft Maintenance

Squadron 57th Wing Nellis AFB, Nev.

SSgt Jason D. McSparron

Propulsion Element Mechanic 119th Fighter Wing Fargo, N.D.

SSgt Jeremy M. Collins

Crew Chief, Munitions Handling 20th Equipment Maintenance Squadron 20th Fighter Wing Shaw AFB, S.C.

SMSgt Edward L. White

Electronic Warfare Systems Mechanic 442nd Maintenance Squadron 442nd Fighter Wing Whiteman AFB, Mo. 4th Equipment Maintenance Squadron 4th Fighter Wing Seymour Johnson AFB, N.C.

Capt Jeremy M. Holmes Chief, Flight Safety MSgt Steven A. Ball Wing FSNCO 5th Bomb Wing Minot AFB, N.D.

Maj Daniel E. Ferris F-117 Flight Lead 49th Operations Support Squadron 49th Fighter Wing Holloman AFB, N.M.

Ms. Maxine Whitten

Facility Operations Specialist 2nd Medical Group 2nd Bomb Wing Barksdale AFB, La.

TSgt Robert F. Voight

Maintenance Flight Programs Manager 366th Equipment Maintenance Squadron 366th Fighter Wing Mt Home AFB, Idaho

TSgt Keith E. Nelson NCOIC, Safety 2nd Munitions Squadron 2nd Bomb Wing Barksdale AFB, La.

SSgt Jeffrey A. Cooke Weapons Safety Manager 1st Fighter Wing Langley AFB, Va.



THE COMBATEDGE JULY 2005 27

QUARTERLY AWARD WINNERS



xtensive ACES II knowledge key to base flying program -two pilot saves. Maintenance proficiency/safety top priority--200+ pieces of equipment inspected. Performed 95 flotation device inspections -- enhanced pilot safety in case of water ejection. Inspected/repacked 57 parachutes ... boosted life saving capability, and trained new Airmen on ACES II parachute systems. Provided 75 Rescue training jumps with zero cut-aways or malfunctions. He is a meticulous inspector: discovered improperly routed 3-ring system on freefall rig, led TCTO 14D3-10-524 planning/execution leading to the replacement of 84 parachute release fittings, identified 12 damaged ACES II parachute containers and then coordinated/performed their repair. A1C Schmidt outfitted "Thunder" jet engines with

protective plugs, sheltering resources from potential FOD. He is a first-rate fabricator; he custom designed and manufactured 13 F/A-22 engine covers, and 13 Thunderbird intake covers for use during show season – decreasing the potential for FOD damage.



A1C John A. Schmidt, 57th Equipment Maintenance Squadron, 57th Wing, Nellis AFB, Nev.



Sgt Jose L. Maldonado is responsible for the safety program that ensures the safety of 24 personnel in the vertical shop. He improved the safety around his shop recently by overseeing the installation of a \$300 vacuum system table to reduce the danger to shop personnel by limiting airborne hazards. He also procured over \$1,000 worth of safety equipment for shop personnel (fire extinguishers, face shields, ear plugs, eyewash solution, and other housekeeping items). His actions ensured sufficient serviceable personal protective equipment for shop personnel and visitors. SSgt Maldonado implemented the replacement of portable eyewash stations with permanent ones which will save 12 man-hours and \$200 per year. He also installed non-slip floor strips to ensure his personnel have adequate traction around the cutting machines. As the shop safety monitor, SSgt Maldonado ensured shop personnel were briefed weekly on safety-related items such as drinking & driving, 20 FW/CC's travel safety initiative, PPE, motorcycle safety and job safety training topics. The vertical shop has not had a seat belt violation during SSgt Maldonado's tenure as safety monitor. He conducts monthly spot checks of his work area to ensure his personnel have a safe work environment. He spearheaded the timely completion of safety write-ups in the carpenter and metal shops, saving fellow Airmen from the risk of electrocution and hazardous welding fume inhalation. He completed updating lockout/tagout, hazcom, and confined-space programs weeks ahead of schedule. He updates and maintains the shop safety binder -- the most complete and up-to-date safety binder in the 20

CES. His efforts ensured shop personnel were aware of any changes to safety policies. All personnel have completed their annual training for 2005 in record time. SSgt Maldonado's actions have decreased on/off duty mishaps by 95 percent in the vertical shop during his tenure, and his safety program has been used as a model for other CE work areas.



SSgt Jose L. Maldonado, 20th Civil Engineer Squadron, 20th Fighter Wing, Shaw AFB, S.C.



Award of the Quarter

Sgt Altonen's safety focus has had a profound effect on the success of ACC's exclusive air-to-ground Weapon System Evaluation Program (A/G WSEP). He was personally responsible for the safe and reliable execution of weapons loading functions during two recent A/G WSEP assessments at Eglin AFB. WSEP involved 276 Airmen and 20 fighter aircraft, flying 126 sorties, employing 59 precision munitions valued at over \$4.3M. During A/G WSEP 05-08 he discovered six MAU-166 arming loops prematurely breaking during the release of guided bomb units (GBUs). The loops are now under investigation by the CAF as a possible cause for weapons missing targets and causing possible collateral damage/fratricide in forward operating locations. This critical find prompted an Air Force wide investigation of all MAU-166 arming loops. While performing routine post-load inspections on four A-10 aircraft, he noticed two improperly routed GBU-12 fin release lanyards. After further research, Sergeant Altonen determined that weapons load crews were not using the most current supplements or updates. He immediately notified the unit's supervision, enabling proper acquisition of the correct T.O. procedures. Undetected, the

oversight would have prevented the weapons from functioning properly upon release and would have resulted in \$211K of lost revenue for mission costs. During the same evaluation, Sergeant Altonen noticed an AGM-65 missile missing a critical shorting device. The device's sole purpose is to prevent stray voltage from contacting the weapon's igniter point and causing inadvertent firing. Through quick action, he was able to clear the immediate area of non-essential personnel and instruct weapons load crews on how to properly safe the munition without incident. During this quarter, Sergeant Altonen also gave comprehensive safety briefings to 276 deployed unit personnel upon arrival for recent evaluations. These detailed briefings

included explosive loaded aircraft parking plans, hung ordnance procedures and proper storage of explosives. He familiarized deployed Airmen on specific dangers unique to Eglin and Hill AFBs.



TSgt Gary J. Altonen, 86th Fighter Weapons Squadron, 53rd Wing, Eglin AFB, Fla.

~PREFERABLY ALIVE~

ONE NOMINEE PER CATEGORY, EACH MONTH AND QUARTER FROM EACH NAF/DRU, ANG AND AFRC UNIT.

SRA JOHN DOE

AWARD OF

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FY05 Aircraft As of May 31, 2005				
	Fatal	Aircraft Destroyed	Aircraft Damaged	
8 AF			十十十	
9 AF		+		
12 AF			**	
AWFC		*±x4 ***		
ANG				
(ACC-gained)				
AFRC				
(ACC-gained			*	

FY05 Ground As of May 31, 2005				
	Fatal	Class A	Class B	
8 AF	††††	4		
9 AF	***	4		
12 AF	††††	5	1	
DRU's				

FY05 Weapons As of May 31, 2005		
	Class A	Class B
8 AF	0	0
9 AF	0	0
12 AF	0	0
AWFC	0	0

Legend

Class A - Permanent Total Disability; Property Damage \$1,000,000 or more

Class B - Permanent Partial Disability: Property Damage between \$200,000 and \$1,000,000 Class C - Lost Workday; Property Damage between \$20,000 and \$200,000

*Non-rate Producing

Aircraft Notes

ACC had 2 Class As in May. An Aerostat crashed after breaking free from its tether during inclement weather, and an E-3 suffered extensive electrical damage to the mission radar and rotodome. Stay in the books! Another EP sim story ... My last sim, I missed the oil pressure out of limits, but not this time! I was beaming with pride as we got to the "Discussion EPs" section. Auto-pilot on, you get a malfunction, identify it, regurgitate all the considerations you can remember, and then consult the checklist for anything you may have missed. Now I'm on a roll, pegging EPs left and right. A new day, new jet. Bink! (ECS light comes on) "I'd take these actions to attempt to extinguish that ECS light, here's all the associated numbers, and here's my RTB plan." Now for the checklist...SURPRISE! Change 10 sucker, read it and weep. A new step #1 and associated warning. Check yourself before you wreck yourself. Fly Safe!

Ground Notes

The start to the 101 Critical Days of Summer did not start well. During the Memorial Day weekend ACC lost two Airmen in separate motor vehicle mishaps. With 97 days to go, we must strive to keep the rest of the 101 Critical Days mishap free.

Weapons Notes

Great job in weapons safety! Mishaps are on the decline due to people committing themselves to ensuring that they're working safely. Paying attention to detail is really paying off. Continue following tech data as we strive towards reducing weapons mishaps by 50 percent.

Symbols for Mishap Aircraft A-10 B-1 F-16 B-2 U-2 E-4 H-1 F-4 HH-60 F-15 RQ-4 T-38 F/A-22 B-52 E-3C

Don't Ose

by Mr. Vince Dotson, Barksdale AFB, La.

n ever-growing numbers, Americans are getting active. The bad news is that millions of these amateur athletes are ignoring the number one rule in any activity: "Play it safe." Because we are in the summer months, recreational opportunities are everywhere. Unfortunately, this also means we are increasing our exposure to potential mishaps. For this reason, it is important to set reasonable boundaries and expectations.

We are constantly bombarded with images and stories of fantastic athletic feats. So it should be no surprise that thousands of us are injured every year trying to imitate our heroes. But we should know ourselves better and take a step back into reality. Almost all of us have some sort of physical limitation. It may be a bad back, respiratory condition like asthma or even a heart condition. Whatever the limitation, it is important to play around it -- not through it.

Choose sports that won't aggravate your condition or endanger your health. Before you begin any activity, drink at least one glass of water 30 minutes prior. Finally, take time to warm up before and stretch thoroughly after.

Don't take chances. The vast majority of sports injuries and accidents happen because people overextend themselves. Play it smart and safe, think twice before jumping in head first...