

Mar / Apr 2007

Combat Edge

Air Combat Command's Safety Magazine



HOW GOOD ARE YOUR WEATHER DECISIONS?

DO YOU HAVE INERT MUNITIONS DISPLAYED AT WORK?

CAREFUL! WRAPPING UP YOUR DEPLOYMENT



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GENERAL RONALD E. KEYS, COMMANDER
COLONEL BILLY J. GILSTRAP, DIRECTOR OF SAFETY

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COVER PHOTO BY MSGT PERRY HEIMER

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ON SAFETY

Do you Have a Plan?

We've all been there. Safe and secure in our knowledge that given today's technology the weather forecaster can't be wrong. We make our plans and step out the door with the best information we have available. The only flaw in our logic is the assumption that we can always predict what the ever-changing weather is going to throw at us. How many times have we been 200 miles from our destination, called up ATIS and found that the weather was far worse than we expected? Or, that a line of thunderstorms stands between us, and where we want to be. Not to worry, we've risk managed that in our mission planning and we have diverts. Take that Mother Nature, we've got a plan!

Flying operations are not the only thing affected by unpredictable weather. A day out fishing in forecasted 2-foot swells with your 12-foot boat can turn into an afternoon of terror when it becomes 6-foot seas. What is your plan? A quick trip through the pass to your parent's house for the long 4-day weekend with forecasted light snow showers becomes a made for TV survival movie, as it turns into a full-blown winter blizzard. What is your plan?

There are a lot of factors we can control. Good mission planning, appropriate equipment, and good preventive maintenance will get us there. We prepare for all the normal flying, sports and recreation, and travel requirements based upon the forecast. Not to worry, we have a plan! Do we?

How prepared are we for the unexpected challenges Mother Nature can throw at us?

This edition of THE COMBAT EDGE contains some articles relating to extreme weather conditions. Even though you may think you have a good plan, take a few minutes to plan for the "what ifs." Believe it or not you can never be sure of what Mother Nature has in store!

Do you really have a plan?



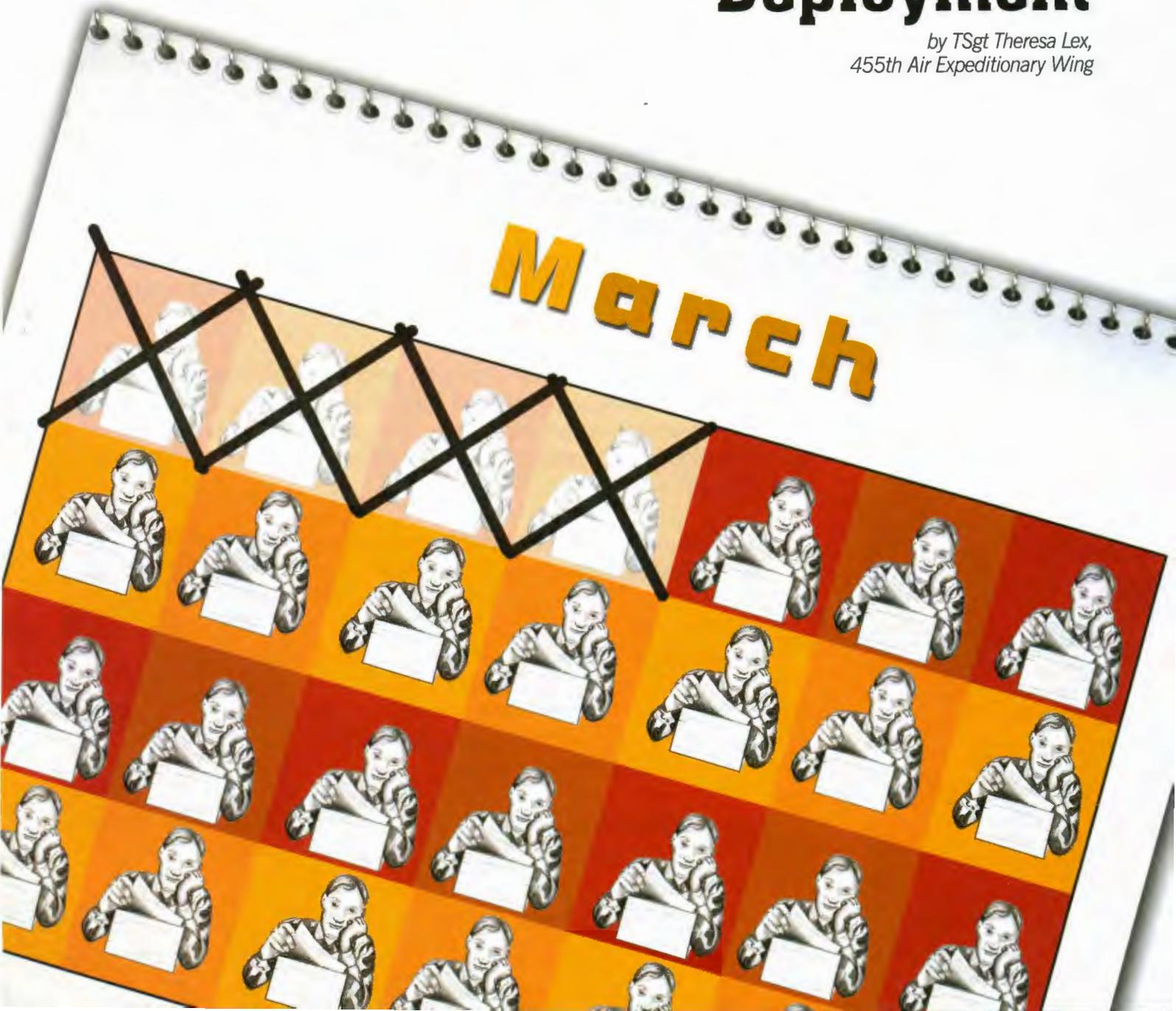
COL BILLY J. GILSTRAP,
Director of Safety

Be Safety Vigilant

Through
Deployment

*by TSgt Theresa Lex,
455th Air Expeditionary Wing*

March



I want to send a message to everyone, “we, in the safety office, want you to return home to your friends and family the same way you deployed to this location.” We want you to remember the last statement you made to your friends or family before leaving for this deployment. It might go something like this “I promise I will be safe while I am gone.”

Most of us here are halfway through our deployment and are use to our daily routines. We get up, go to the gym, take a shower, go to the dining facility, and then go to work or back to our room for some sleep. The next day we start the process all over again. This cycle continues; day in and day out; as days turn into weeks and weeks turn into months, as each of us add Xs to our calendars counting down the days until we return home. To many people, these deployments start to remind us of the movie “GroundHog Day,” where the same day keeps repeating until Bill Murray’s character gets it right. However, this is real life and we cannot re-start the clock if something bad happens.

When arriving at a deployed location, we can expect to progress through three stages: the arrival, mid-point, and end stage.

During the arrival stage, everyone is looking for an unidentified hazard. They try to get their situational awareness about what is going on around them in this new environment. At this point, in the deployment, mishaps happen, but they are minimal and usually a result of not being familiar with the surroundings. Everyone works at top performance, and operates at an above-average level of safety awareness.

Statistically speaking, by the midway point, where most of us are today, we are entering one of the most dangerous periods during our deployment.

Two causes for concern during this critical time are complacency and fatigue. Complacency can take many different forms, but the one seen most often is failure to apply checklist discipline. Failure to follow checklists or technical data is a causal finding in many mishap investigations, but it’s something that’s easy to correct and fix. Start with the basics: seat belts, reflective gear, etc. Review the checklist or technical guidance before starting the job. Don’t let your guard down, if something does not look right, stop what you’re doing and fix it or report the hazard.

Vigilance is particularly important in combating complacency. Keep your eyes open and your head up, look around and be alert for safety hazards because the entire base is an industrial area with many different hazards. To combat complacency, rotate shifts or tasks; this helps people to break up the monotony of everyday operations. Remember, when performing a job or task, always do it by the book — don’t take the shortcuts. Shortcuts might



photo by MSgt Cheryl L. Toner

work some of the time, but remember “Murphy’s Law,” and good ol’ Murphy guarantees the accident will happen to you. The bottom line is this: If you see someone taking a shortcut or doing something unsafe, STOP THEM!

Chronic fatigue is a second concern. Fatigue causes many needless fatalities and mishaps. When a person becomes fatigued, it’s a natural tendency for them not to focus 100 percent of their attention on a task. The best way to combat chronic fatigue is to get between 6 and 8 hours of sleep each day. When sleep loss accumulates over time, people start to show signs of increased errors, difficulty in following directions, carelessness, and lack of motivation. All of this translates into inattention and unnecessary risk-taking to get the job done, resulting in an open invitation for a mishap.

During the end stage of a deployment, everyone focuses on finishing the deployment so that they can get home to friends and family. Mistakes tend to occur more frequently during the end stage as people tend to perform tasks haphazardly in the effort to “get-er-done.” Your professionalism, checklist discipline, and attention to detail will prevent mishaps from occurring. We all have the same goal — to get home safely to our loved ones and friends. The best way to do that is to take pride in your work, celebrate your professionalism, and close out your deployment with the same attitude that you started it: at an above-average level of safety awareness.

Awareness is the key to a successful deployment. Watch out for pitfalls during your deployment, keep an eye on each other, ask for help when needed, and remain vigilant for safety hazards. Remember, “we, in the Safety office, want you to return home to your friends and family the same condition you deployed to this location.” And you need to keep your promise to your friends and family. 

too HOT to deploy?

by Mr. John W. Wing, Minot AFB, N.D.

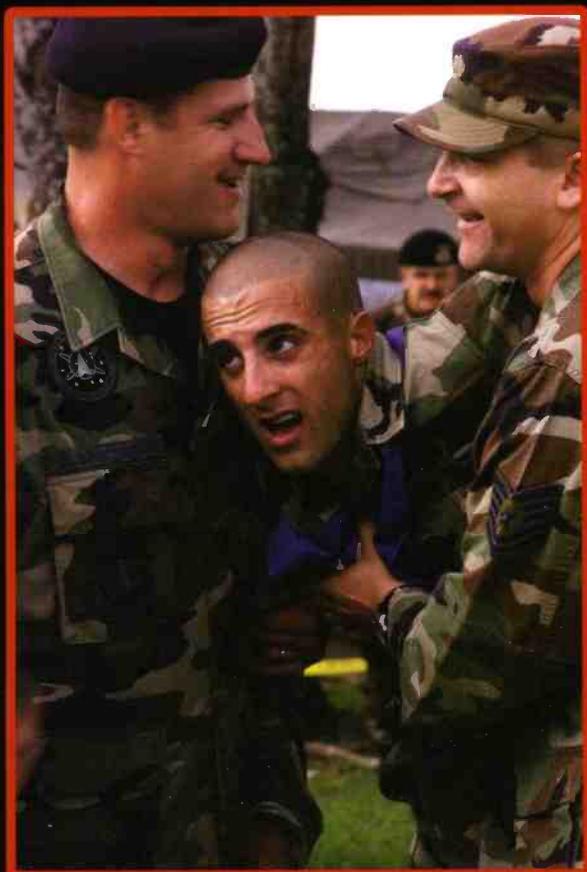


photo by SSgt. Janice Cannon

One factor you will have to consider when you're deployed is the different climates and meteorological conditions you and your fellow workers will have to deal with. One of the most demanding environmental conditions will be working in areas of extreme heat and sunlight. Hot, dry conditions are found in desert climates and it's not uncommon for temperatures to exceed 100 degrees Fahrenheit daily for long periods of time. Working in direct sunshine can expose workers to temperatures 30 to 50 degrees higher than the temperature in the shade, and without proper precautions, can contribute to heat-related injuries.

Probably the most common heat-related condition you will have to deal with is sunburn. Sunburn can be a painful skin condition, which occurs as a result of overexposure to the Ultraviolet (UV) rays of the sun. Sunburn affects the body's ability to cool itself and causes a loss of body fluids. Ultraviolet rays react with a chemical called melanin that's found in most people's skin; the darker the skin color, the more melanin the skin contains to protect itself. Fair-skinned people face an increased risk from sunburn, which develops when the amount of UV exposure exceeds what the skin can protect against. Even on cloudy, cool, or overcast days; UV rays travel through the clouds and reflect off materials, such as sand, water, and concrete. This "invisible sun" can cause unexpected sunburn and skin damage. Symptoms include red skin

that's warm to touch. Severe reactions (sometimes called "sun poisoning") may include fever, chills, nausea, or rash; and sunburned skin may peel several days after the sunburn.

The next heat-related conditions we need to consider fall under the heading of heat stress disorders. Heat stress disorders are the result of the combination of the environment and physical work factors that constitute the total heat load imposed on the body. The environmental heat stress factors are air temperature, radiant heat exchange (e.g., sunlight), air movement, and relative humidity. Physical work contributes to total heat stress through the body's production of heat as it burns energy to sustain the work. This production of heat depends on the intensity of the physical effort that is affected, in turn, by body size, muscular development, physical fitness, and age. As environmental temperatures approach normal skin temperature, cooling of the body becomes more difficult.

These conditions adversely affect an individual's ability to work in a hot environment, especially when conditions of high humidity exist. Personnel who must perform delicate or detailed work may find their accuracy suffering, and others may find that their ability to comprehend and retain information decreases. As a result, certain safety problems are common to hot environments — slipperiness caused by sweaty palms, dizziness, or the fogging of safety glasses. If there are hot metal surfaces, the possibility of burns also exists. Increased body temperature and physical discomfort promote irritability, anger, and other emotional states, which can cause workers to overlook safety procedures or divert their attention from hazardous tasks. Heat stress disorders may be recognized by one or more of the following symptoms: nausea, vomiting, fever, dizziness, headache, faintness, abnormal sweating, convulsions, lack of coordination, mental confusion, and abdominal or leg cramps.

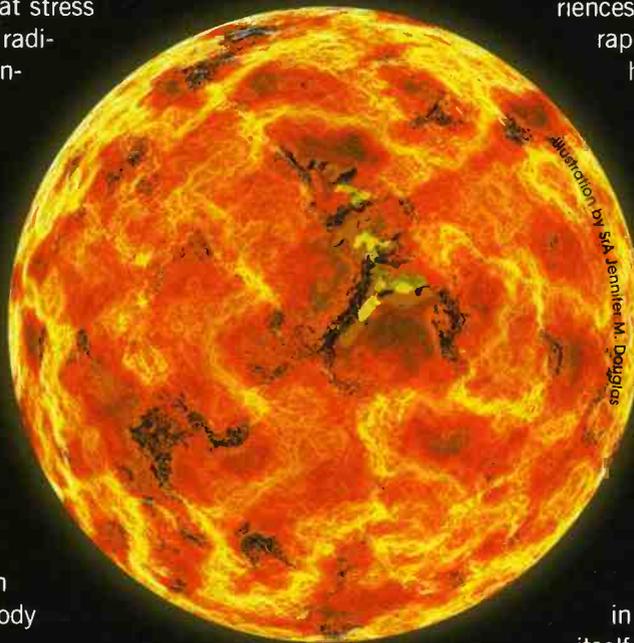
The first of the heat stress disorders is heat cramps. Heat cramps are painful intermittent spasms of the muscles used during work (arms, legs, or abdominal) that may occur during or after work hours. Cramps may re-

sult from exposure to high temperature for a relatively long time, particularly if accompanied by hard physical work. Cramps usually occur in un-acclimatized personnel after heavy sweating and are the result of excessive loss of salt from the body. Even if the moisture is replaced by drinking water, the loss of salt by sweating may provoke heat cramps.

The next disorder associated with heat stress is heat exhaustion, where the individual experiences profuse sweating, weakness, rapid pulse, dizziness, nausea, and headache. The body temperature is elevated with heat exhaustion, although not to the same degree as with heat stroke. Heat exhaustion is caused by a deficiency of water and/or salt intake and circulatory strain from competing demands for blood flow to the skin and to active muscles. Heat exhaustion can rapidly progress to heat stroke if not treated immediately.

Heatstroke is a medical emergency and is caused by exposure to a hot environment in which the body is unable to cool itself sufficiently. This results in the body temperature rising rapidly. With classic heatstroke, hot dry skin may be present. It is often preceded by nausea or vomiting, abnormal shivering, and/or confused mental status with slurred speech. Increased body temperature, if uncontrolled, may lead to delirium, convulsions, coma, and even death.

So now that you know what you're up against, how can you help protect yourself? Recommended first aid for sunburn consists of applying cold compresses or immersing the sunburned area in cool water; applying a soothing moisturizing lotion to affected areas; taking aspirin or ibuprofen to relieve the pain, headache, and to reduce fever; and drinking plenty of water to replace fluid loss. Do not apply petroleum jelly, ointment or butter as they make the symptoms worse and do not allow air to assist in healing. Do not break blisters or wash burned skin with harsh soap. To help prevent sunburn, use sunscreen with a Sun Protective Factor (SPF) of 30 or higher; lighter skin may require a higher SPF. Sunscreens rated higher than 15 SPF are usually less soluble and last longer. Apply sunscreen 30 minutes before going outdoors and reapply according to package directions. Give special attention to face, nose,



drink plenty of water

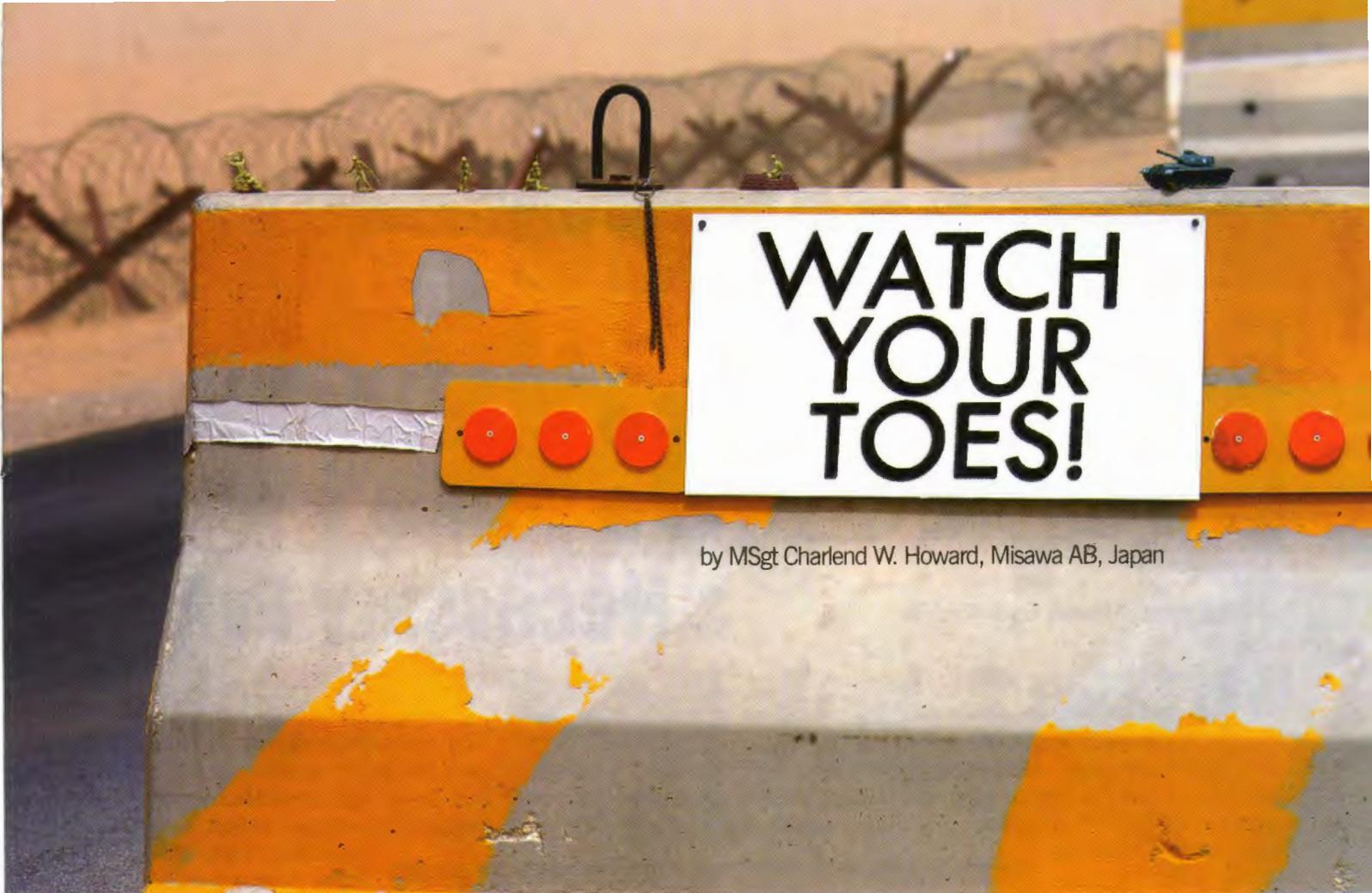
ears, and shoulders. Wear clothing that covers the body, a hat that completely shadows the face, and sunglasses that provide UV protection whenever possible.

For the other heat-related hazards, you must replenish fluids. People often don't replenish the liquid they sweat daily and "thirst" is not an adequate indication to signal fluid intake, therefore, supervisors must implement and enforce policies to ensure personnel drink the recommended amount of fluid, even if they are not thirsty. The amount of fluid replacement depends upon the activity, temperature, and how much sweat is generated. Medical personnel can advise how much replacement liquid is required, as well as what type of liquids are recommended. Normally, this includes noncarbonated beverages and water. Personnel should avoid alcohol and beverages with caffeine; they affect the body's circulatory function and may increase urination and increase the tendency for dehydration. Drinking highly sweetened beverages is also not recommended. Liquids should be sipped, not gulped, and it's better to drink small amounts of water frequently than to drink large amounts occasionally.

We also must have adequate food intake. Failure to consume sufficient food energy can increase the risk of dehydration, heat injury and illness. In hot weather, the amount of calories required actually increases slightly although the desire to eat goes down. As a result, poor food intake decreases the intake of salt necessary to retain water. Individuals consume almost half of their fluid intake at mealtimes. When personnel skip meals or voluntarily limit their food intake, then the amount of fluids consumed may also decrease. Encourage personnel to eat at least two balanced meals per day.

Try to wear the appropriate weight uniform and a hat. Wear loose fitting clothing if possible, especially at the neck and wrist, to allow for air circulation. Finally, supervisors should attempt to use intermittent rest periods with water breaks, and the work load should ideally be distributed evenly over the course of the day. An additional measure to help protect our workers is to use the "buddy system" to help detect signs of dehydration and illness in others. I realize none of this is new to you, however, it warrants revisiting as the mission of today's forces routinely finds us operating in hot dry conditions. The bottom line is to keep well hydrated, wear proper clothing, adjust work schedules, and look out for each other. A little bit of prevention will reap huge rewards in the protection of your personnel and mission accomplishment. ★

This information has been extracted from AFPAM 91-216.



WATCH YOUR TOES!

by MSgt Charlend W. Howard, Misawa AB, Japan

photo by SSgt Matthew Hannen

While deployed as the Ground Safety Manager (GSM) for the 506th Air Expeditionary Group at Kirkuk Air Base, Iraq, June through September 2004, I had the unique opportunity to see many of the Air Force's finest troops practicing safety while keeping in the forefront, the main objective of mission priorities during everyday activities. Even though the operations tempo was extremely high, personnel always remembered to use their Personal Protective Equipment (PPE).

From steel-toed boots, safety goggles, protective gloves, to hearing protection, the Air Force does a remarkable job providing Airmen with a variety of safety equipment because you just never know when you're going to need it.

Consider this, while entering through a vehicle entry point, a Jersey barrier was struck by a vehicle and fell over onto an unsuspecting Security Forces member. That's right – a huge concrete barrier. Had it not been for her quick feet, and keen reaction time, this could have been a real tragedy. Instead, the only casualty was a mild sprain and a pair of severely scuffed steel-toed combat boots.

The Airman wasn't wearing the boots because she expected a mass of concrete to come falling her way. In fact, she had no idea a vehicle could knock one over. Honestly, we all were a bit surprised at that.

The fact was she had been wearing steel-toed boots not only for the dangers we could identify, but also for the ones we couldn't; and had she not been wearing them, things would have been much, much worse. Fortunately, the chain of command, from the supervisor to the commander, knew what PPE personnel were required to wear, ensured that it was available, and required its use on duty, and it paid off to the individual's benefit. It's a proven fact backed up by experience: personal protective equipment does help prevent injuries.

PPE is premised on a hazard that can do bodily harm through absorption, inhalation, or physical contact. This is why Operational Risk Management plays a vital role in your daily operations. Personal protective equipment is built into our work environment because it was determined that some tasks you are required to accomplish may pose a safety risk to you. And, as the incident above clearly shows, a mitigated risk is much preferred to a debilitating injury in the accomplishment of the mission.

So remember, before you begin your next task, take the time to see what type of PPE is required to accomplish it safely, as safety is not only a word; it's what we need to practice to keep the mission going. 🗡️

MUNITIONS Displays:

a Necessary Evil?

by MSgt Jose L. Monzon, Eglin AFB, Fla.

Do you have inert munitions on display in your work area? If so, do you know their origin and why you have them? Are you confident they're all inert or empty? Ever picked up an unexploded ordnance (UXO) from the range and kept it as a souvenir? Do you possess a "going away" plaque with a 20 or 30 millimeter ammunition piece attached? These things make great decorations and interesting conversation pieces, don't they? Let me tell you about a conversation that took place around 1995.

An incident occurred involving a "training" munition, an Air Force master sergeant, and his squadron commander. The sergeant was showing his commander a display case and some recent acquisitions to it. One item in particular was a Soviet anti-personnel land mine that had supposedly been made safe to handle and was given to the sergeant as a small token of appreciation. Dur-

ing the course of their conversation, the tiny land mine fell a mere 10 inches onto a desk, detonated and slightly injured the two individuals. Remarkably, before the item exploded, the

ing the sergeant's own children. The land mine was later used to create a mold for plastic renditions of the mine that would later be dispersed during operational readiness evaluations and inspections across the Air Force. This was definitely an unusual occurrence, but one that should not be repeated.

What about picking up ordnance from active, inactive, or formerly used bombing and gunnery ranges? This is an absolute no-no! I've heard some say experience is just another word for your mistakes. Well, you may recall the school teacher who found a round of ammunition while hunting. He was using it as a paperweight when earlier this year it exploded in his classroom, and he lost part of his arm. The story doesn't reveal exactly where the teacher found the UXO. The point: items on or off range are



land mine had traveled from Germany to the United States. It had also been picked up and occasionally dropped by many curious handlers, includ-

dangerous.

Think about it, most munitions fired or dropped on ranges are live with few exceptions. Why would any-

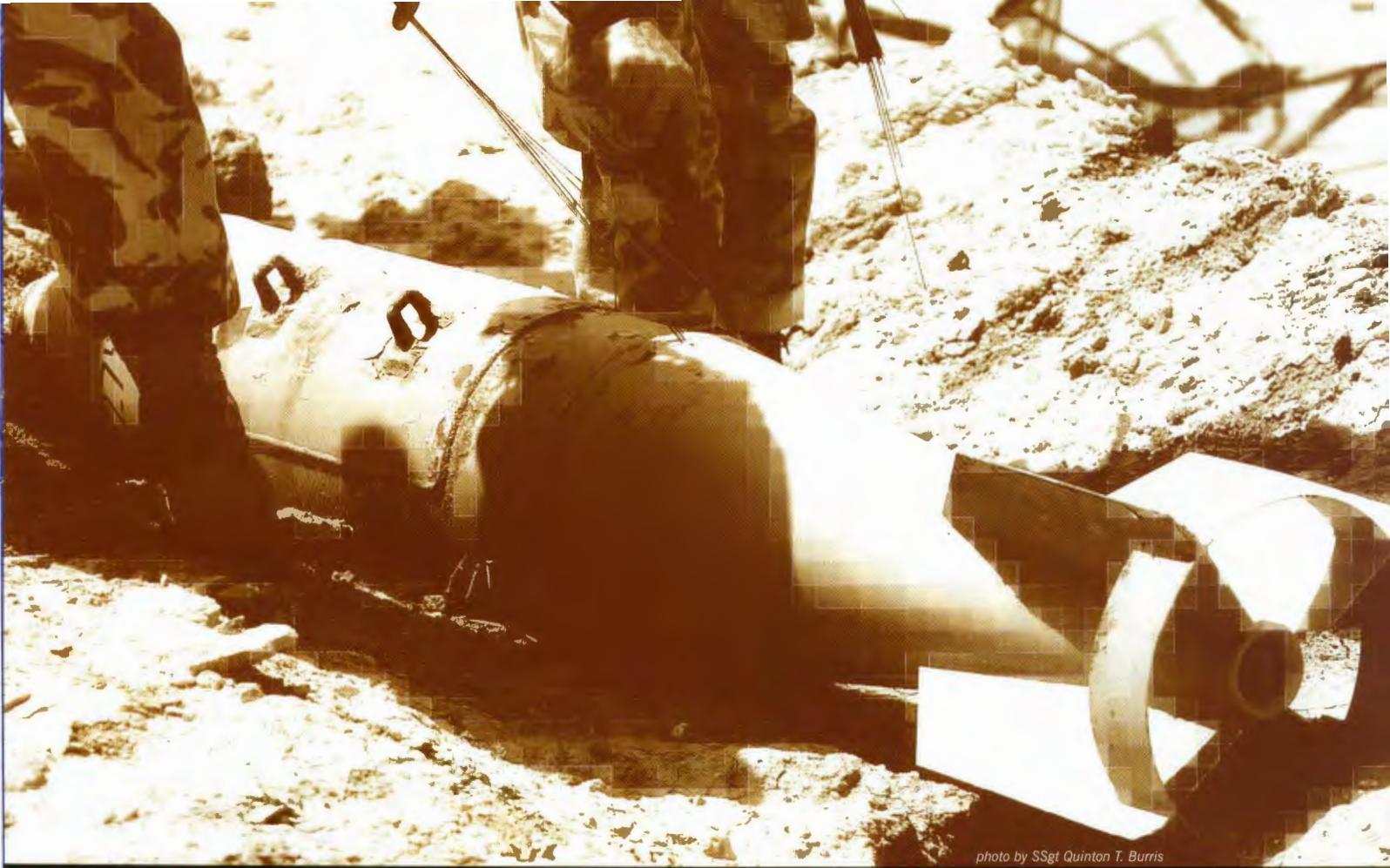


photo by SSgt Quinton T. Burris

one want to pick them up? Let's face it, ordnance items look "cool" and that all-powerful curiosity seems to override common sense. The teacher was probably a smart man. But when it came to an UXO, I'm sure he got all the education he will ever want. Don't let experience be the way you find out something is hazardous.

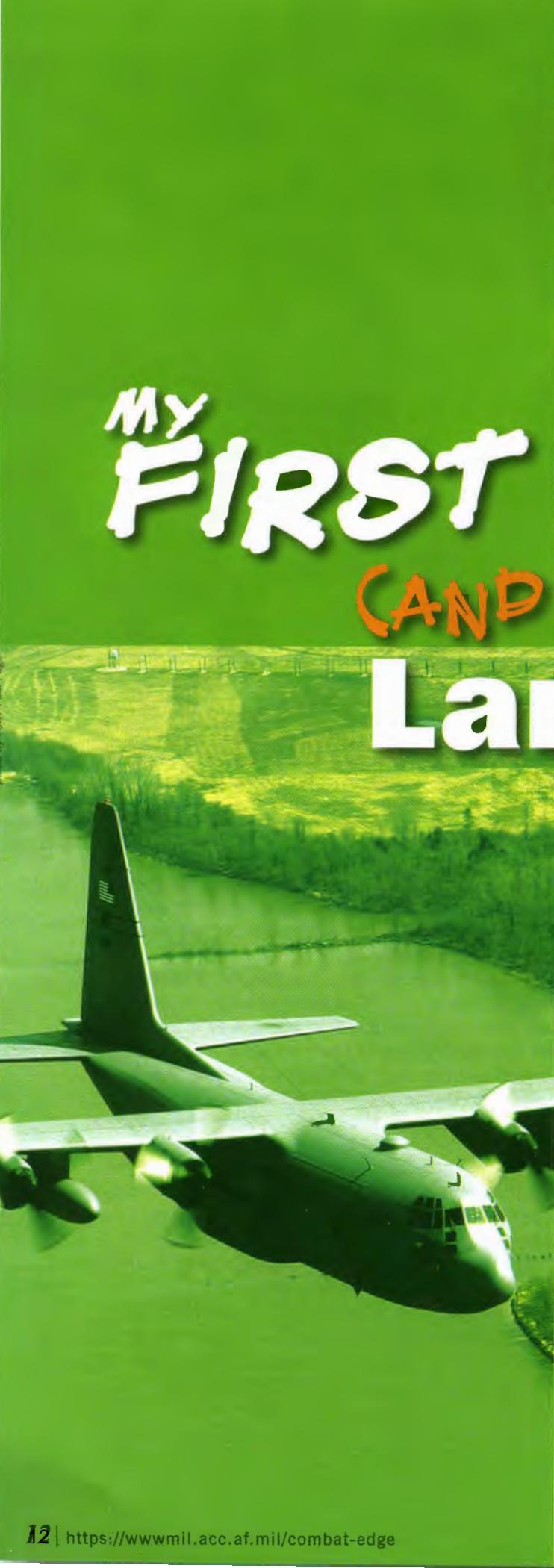
Although situations like these are rare, they can and do happen. Munitions, training or otherwise, can be dangerous and even deadly when in the hands of the untrained. And, as my first story shows, this is sometimes even true of ordnance professionals. Both incidents described above can be viewed as wake-up calls to us all.

While these were very unfortunate events, there was some good that came out of them. In fact, the land mine incident prompted an Air Force-wide inspection of training items. I recall being overseas when we got the message. We inspected our display of training munitions and discovered a live tracking flare on a Russian man-made portable missile. Not a lethal item, but one that could have caused serious injury. The flare was removed and destroyed; however, in some cases it may not be feasible or even possible to determine a munitions status (i.e., live, inert, or empty). That happened after the tiny land mine exploded. The unit ended up having to contract Marine Explosive Ordnance

Disposal (EOD) support to help inspect and certify some of the other training munitions whose condition was suspect. (Note: Only Marine EOD units are authorized to accomplish ordnance "inerting.")

The Air Force has made great strides in terms of educating personnel on UXO in wartime environments. But a little extra education could go a long way in preventing these non-wartime events from occurring. For example, take wall plaques or presentations involving munitions. Are we authorized to assemble ordnance items on a piece of wood and present that to someone when they leave for another duty station? If you said yes, you're correct. Are there any requirements that must be met? Absolutely; see Technical Order (T.O.) 11A-1-53, Chapter 2. While I don't have a story about a live wall plaque causing injury or death, it's still critical that all the T.O.s are followed so that these type of wall plaques can remain an integral part of our various military traditions.

Bottom line: Ordnance items in the office or on display should serve a purpose; otherwise they belong in a museum. *"Commanders will ensure that personnel are trained to handle all ammunition items and components as potentially dangerous, even though they have been designated empty or inert loaded."* – T.O. 11A-1-53.



MY
FIRST

(AND LAST)

by Maj Brad Robinson, Langley AFB, Va.

Landing

**IN A TROPICAL
STORM**

My first assignment out of pilot training was as a C-130 copilot at Clark AB, Philippines. Talk about a great assignment, not only was it a beautiful country to live in, we got to fly in some incredible countries all throughout the Pacific. It was on a trip back from one of these countries that I got to see up close and personal poor decision making with regards to weather while also gaining unique experience on how to land in a tropical storm.

It was May of 1989 and I was put on an embassy support mission to Jakarta, Indonesia. The aircraft commander (AC) was our operations officer, a very experienced Lt Col and Vietnam vet who was soon to retire and was on what we called his "farewell tour." He was flying as many of the 'good deal' trips as he could get to finish off his career and this mission was next on his tour. I was the youngest copilot in the squadron and had never flown with the Ops O before. Our navigator, engineer, and loadmaster were all experienced instructors in their crew positions.



photo by SSgt Lara Gale

“one of our external tanks’ pumps quit working”

We managed the leg to Jakarta, but one of our external tanks’ pumps quit working on the way. It wasn’t a huge problem since there were two pumps in the tank, so we could still get the gas out, but it meant we wouldn’t be able to use the tank for our return leg (both pumps had to work). Unfortunately, it also meant we couldn’t put fuel in the other external tank to prevent an unbalanced condition. That obviously cut into the amount of fuel we could carry for the trip back to Clark and would dramatically impact our return.

When we showed up to flight plan for the leg back to Clark, we found out Tropical Storm Brenda, which had only been a depression to the east of Clark when we’d left, was a full fledged tropical storm and was slowly approaching the base. It was forecast to continue on to the west, so with our flying time of over 6 hours (and still 2 hours before we even took off), Brenda should’ve been well away from the base by the time we arrived (at least that’s what they told us).

We talked about staying in Jakarta an extra day just to be sure the storm was gone, but the Ops O (and AC) said he needed to get home for an “important meeting” (actually he needed to get into pre-mission crew rest for his next “good deal” trip). To further complicate matters, we would be arriving at night, but with Brenda forecast to be well west of Clark by then, we decided to start for home, recheck the weather en route, and decide whether

to continue or not at our equal time point (ETP) — the point where we had enough gas to either continue to our destination or divert. Once we passed the ETP, we were committed to Clark because we didn’t have enough gas to make it to other alternates not affected by tropical storm Brenda (Manila International and NAS Cubi Point were our legal alternates, but we figured they’d be affected by the same weather as Clark). We had Singapore, Hong Kong, or Bangkok all about the same distance from our ETP if the weather didn’t allow us to get into Clark (I voted to divert before we’d even left!). If we’d been able to put gas in the externals, we could’ve flown all the way to Clark and still have enough gas to make it somewhere else.

Just prior to our ETP, we gave Clark Weather a call to find out the status of Tropical Storm Brenda. This was nearly 3 hours after our takeoff, so we expected to hear that Brenda was now about 100 miles west of Clark. Unfortunately, we were told the storm had stalled and was still over Luzon. Clark was getting some pretty good winds (gusts approaching 60 knots) with heavy rain. They told us they still expected the storm to begin moving west and that the weather would be clear by the time we arrived at Clark. We again discussed diverting at that point, but our Ops O (and still AC) wanted to continue onto Clark. He was supported by our navigator who was also very senior (and coincidentally was scheduled to fly the next “good deal” trip on the “farewell tour”). Most of us thought (and voiced our opinion) that we should divert (the loadmaster and I voted for Bangkok), but we deferred to the Ops O’s decision because of his position in the squadron and his experience. As a fairly young copilot, I didn’t feel confident in opposing an AC, especially since my severe weather ex-

perience was limited (and did I also mention that he was the Ops O?), so I didn't object much when the decision was made to continue on.

We could see on the radar a pretty solid line of storms that we had to bust through, and it didn't look to me like there was a hole anywhere to go through. Our nav was confident he could find a gap, so we pressed on our merry way. As we got closer to the line of storms, it still looked like a solid wall to me. Our nav started spitting out vectors and managed to steer us through where it wasn't as intense (i.e., only moderate turbulence, lightning, rain — all those things that make t-storms so enjoyable — instead of the really hard stuff). When we got to the back side of it, the air smoothed out and we continued on no worse for the wear.

As we approached Luzon, Manila Radio informed us their radar had failed. They told us we were the only ones they were working, so we were cleared direct to Clark. When we were switched to Clark Approach, I tried to call them but got no response. I changed back to Manila but couldn't raise them either (I think they went back into their storm shelter). I pulled out the Flight Information Handbook and started trying the other frequencies listed for Clark. I tried one after the other until I finally made contact. They told us their radar had also been knocked out as had most of their radios. They let us know they were operating on battery power since most of the base was without power. Oh, and they also told us Tropical Storm Brenda was still directly over the base. It hadn't moved at all in the 3 hours from the time we called the weather shop (or the 6 hours from our takeoff for that matter). We were instructed to fly direct to Clark VORTAC and execute the International Civil Aviation Organization (ICAO) Procedure Turn (PT) Approach (nobody really flies an actual approach do they?) and they would pick us up for a Precision Approach Radar (PAR) (the PAR still seemed to work).

The AC had flown the approach to Jakarta, so as was tradition, this one was mine to fly. We were getting bumped around pretty good, but I managed to get us

around to final for the PAR pickup. As the controller started giving us PAR vectors, the aircraft began shaking violently (severe turbulence was an understatement). The plane was shaking so hard I couldn't keep hold of the yoke with only my right hand. It took both hands on the yoke or it would shake right out of my hand. Every time I tried to move my left hand back to the throttles to change power, I'd lose grip on the yoke again, so I decided to fly with both hands (like I really had a choice). I asked the AC to move the throttles for me since I couldn't do it myself. At this point the instrument panel was shaking so badly, I could hardly read the gauges — and the rain was something to see. Out the front of the airplane it just looked like we were essentially under water. The windshield wipers were on high speed but they weren't moving any water at all. It was just a blur. Good thing it was dark out or I would've been really worried.

At about this same time I noticed the DME (Distance Measuring Equipment) was clicking down much faster than usual. I asked the navigator about it and he said we had 80 knots of wind on our tail. That gave us a ground speed of more than 210 knots! Just as he said that, he said, "Whoa, wait a minute; it's shifted over to our nose. Now we have an 80-knot headwind." That now gave us a mere 50 knots of groundspeed — a 160-knot swing. At least now I had time to make good corrections! You pilots out there will recognize this as a warning sign of significant wind shear. The good part was the violent shaking dissipated slightly, enough that I could take control of the throttles back and could mostly read the gauges.

We were backing up the PAR with a Tactical Air Navigation (TACAN) approach just in case the PAR failed (just like I was taught in pilot training). As we approached the minimums for the TACAN approach, I noticed the PAR controller had quit talking. They are required to talk every 5 seconds and it's usually a pretty constant rumble of "on course, on glideslope" (for me) or "well below glideslope and holding" (for most other pilots). I pointed out to the AC that the controller was pretty quiet, so he did a quick radio

"Tropical Storm Brenda was still directly over the base"



check. The controller stammered back and told us his PAR radar had failed and we needed to intercept the TACAN or immediately execute a missed approach. Since we'd backed up the PAR with the TACAN anyway, it was no problem to make the transition (I'd pretty much already leveled off at TACAN minimums when I realized he wasn't talking to me).

At this point we were close enough to the field to see the approach and runway lights (and they still worked). However, it was still raining so hard all I could see out the front was the water pooling on the windscreen, the windshield wipers waving uselessly, and a giant blur from the airfield lights. I picked out the Visual Approach Slope Indicators (VASIs) and started down, but I couldn't tell how high above the runway we actually were because of the rain and blur of lights (we typically didn't use the Radar Altimeter to call out altitudes). I was so uncomfortable attempting a landing in those conditions that I told the crew I was going around for another try at it. I half expected (maybe hoped is a better word) the AC would take the controls and put us safely on the ground, but I could tell he was just as uncomfortable as I was and he quickly concurred with the go-around. He informed the controller and told him we wanted to go back around for another TACAN.

This time, however, our nav gave us an Airborne Radar Approach (ARA) using our aircraft radar to vector us around), so I didn't have to fly the ICAO PT again. We still got the bonus fun of flying through the violent shaking and "cats and dogs" rain as we had on the first try. We managed to get back to base, and as we turned to intercept the TACAN, the controller informed us his radar had started working again. He asked if we wanted the PAR instead, but we politely declined (polite is a nice term for what we actually told him) and continued with the TACAN approach. We intercepted the VASIs again, and this time the Nav called out our height off the Radar Altimeter. The rain had let up a little and we were able to land this time around. You've heard the adage "It's better to be on the ground wishing you were flying, than flying wishing you were on the ground." This was one time I was very glad to be back on the ground.

When we got back to the squadron building, the squadron commander and the wing commander were there to greet us. That was pretty unusual to say the least. They told us they couldn't believe we'd actually returned in the middle of a Tropical Storm. They pulled the AC into the Sq CC's office and had a very heated one-sided discussion with him. I heard a constant stream of \$#&@ and %^@#, which told me we'd probably not made the smartest decision. That was validated when they came to "chat" with me. Since I was a young copilot, it was not nearly as bad as the AC had gotten — more of an instructional discussion, but their point was made.

So what did I learn from all this? First, I learned that I had been trained very well with respect to basic flying skills — beginning with pilot training, followed by C-130 qualification, and continuity training. When things started going from bad to worse, we didn't panic. We worked well as a crew and did the little things to get safely back on the



photo by Mr. Jim Brooks

ground — we fell back on the training we'd received and made the small adjustments that contributed to a successful recovery. There were little things like briefing the ICAO PT as a backup to the expected radar vectors to the ILS, knowing what to do for lost communications, what to do when the controller quits talking on the PAR, and recognizing the windshear hazard. Probably the best decision I made that day was to go around on final when I was uncomfortable with the landing environment — and the rest of the crew backed up that decision. Of course, it was our own fault we needed to practice those skills, but they were valuable skills nonetheless.

Second is not to press the weather no matter what the reason. The forecast weather was adequate for our return. Even the alternates were all legal, but with a Tropical Storm (or even a thunderstorm for that matter), there's no guarantee what it will do or what damage it will leave behind. Sometimes it's better to delay a day (especially in a nice location) than to press on and have to answer all the questions if something bad happens. Aircraft issues obviously weigh heavily in weather decisions. Our day was complicated because we couldn't put fuel in our external tanks. That extra gas would've let us get to Clark, see what the actual weather was and still be able to go somewhere else if we didn't like what we saw. We didn't get hit by lightning, or damaged by hail, but that's just because we were lucky. All of those hazards were present, they just didn't impact us. Others haven't had that luck and suffered significant damage while traversing milder weather than we did.

Third is to speak up and question decisions you don't agree with or are uncomfortable with. It's often easier to defer decisions to someone more senior or more experienced than to take the chance of making a wrong one yourself (or asking a dumb question). We see it all the time where an instructor, a flight examiner, a flight lead, or a flight commander makes a decision and the rest of the group goes along assuming that senior person knows what they're doing. I've been in the position of being senior and making a dumb decision with others blindly following. I know experience doesn't always guarantee intelligence. All it might take to change a bad course of action is for someone to speak up and question the group's decision.

And fourth, I learned that a night in Bangkok is better than landing in a Tropical Storm. I've done both and given the choice, a Bangkok divert is a no brainer. ✈️

Weather

Decis

**Between April and
September 2006
ACC experienced 8
reportable weather
incidents with damage
to 16 aircraft**



missions the fly

by Anonymous

The mountains glowed orange in the east as the sun rose on the cool, Utah morning. After 2 weeks of Combat Hammer at Hill AFB, we prepared to return to our home base on the east coast. I was the flight lead, #1 of six F-15Es with another six F-15Es following us in 30-minute trail. We were departing one day earlier than originally planned to beat the effects of Tropical Storm Ernesto on our base. What could possibly go wrong? After all, it was my birthday.

We had accomplished our mission planning the day prior. Without tanker support, the plan was to two-hop home with the intermediate stop at Whiteman AFB, Mo., for gas and lunch. This morning, we only needed to update the weather and Notices to Airmen, input the flight plan, and give a quick motherhood brief prior to flying.

We learned the weather for the western half of the United States and Whiteman AFB would be clear. Our home base was forecast to have scattered to broken clouds at 3,000 feet with "standard afternoon thunderstorm buildups." No alternate field was required, but we planned on using an Air Force base north of our base as a divert just in case the weather effects from Ernesto made fields east and south unusable as the day played out. Because the thunderstorm picture had yet to develop, we anticipated that we would need to carry extra fuel to be able to reach the alternate on the east coast. We also planned a geographic decision point on the second leg where we could make an intermediate stop at McGee-Tyson Air National Guard Base, Tenn., to refuel if we thought fuel might be an issue. We briefed the plan and headed to our jets.

Ground ops, departure, and recovery to Whiteman AFB were uneventful. A quick weather check revealed there was no change to the forecast. We could enjoy our bowling alley burger with relative ease looking forward to getting back home. Again, ground ops and departure from Whiteman were uneventful. We arrived at our geographic checkpoint with plenty of gas and decided to proceed direct to home without the extra stop at McGee-Tyson.

About 150 miles from our base, we checked the automated terminal information system (ATIS) and called our Supervisor of Flying (SOF) to check on the field status. We were unable to contact the SOF, so we switched over to our squadron operations (ops) frequency to talk to our Top-3. He told us the field was operating under "Lightning within 5 nautical miles" procedures, but he expected it to clear in about 20 minutes. He also told us they were using another nearby Air Force base as the local alternate.

About 100 miles from home, we could see a huge thunderstorm cell had formed south of the field and was moving north, hindering our recovery. A quick call to the SOF indicated that the "Lightning within 5" condition still existed. The SOF, in coordination with our squadron Top-3, asked if we had enough gas to backtrack to McGee-Tyson to land. A quick check indicated that my wingman would land at McGee-Tyson with less than normal recovery fuel, but still well above minimum or emergency fuel levels. The SOF, with direction from our Top-3, directed us to divert back to McGee-Tyson. McGee-Tyson was not the locally designated alternate but had better weather and was west of the line of thunderstorms.

As I wheeled my six-ship westward for the divert, the SOF called again to inform us that he expected the "Lightning within 5" to pass in about 5 minutes and we could shoot the approach home if we wanted, then divert to the locally designated alternate (which was closer than McGee-Tyson), if we needed to. Incidentally, our primary northern divers were now unusable for low ceilings and thunderstorms in their vicinity and the SOF was already working multiple divers due to the deteriorating weather. Having roughly 10 to 15 minutes of gas available before reaching divert gas for the locally designated alternate, I wheeled the formation around yet again for the approach into home from the northwest.

We picked through a line of thunderstorms using the weather function of our radar, and emerged eastbound on the other side of the line but were now staring at another line of heavy cells positioned between us and the base. Based on the deteriorating weather in front of us, and the fact that the "Lightning within 5" condition had not yet changed, we made the decision to divert to the locally designated alternate (we were now below the gas needed to get to McGee-Tyson). I asked Air Traffic Control (ATC) for a right-turning vector direct to the alternate that would keep us clear of the dangerous cells. The response was frightening: "I don't see a clear path with a right turn direct to your alternate."

Roger that. I knew the weather was better from where we'd just come from, so I began a wide, left 270-degree turn to get back to the good weather. Meanwhile, ATC kept us at to flight level 200, and we were being driven further northward by the cells we were avoiding, so gas soon hit the minimum we needed to make the divert. We declared "Emergency Fuel" and commenced an immediate climb to conserve fuel and turned direct towards our alternate field. Weather be damned; fuel was now the issue.

As we climbed, the severity of the precipitation and electricity grew, rendering both the weather radar and the radios nearly useless. I again asked the controller for a vector to stay clear of the heaviest cells en route to the alternate and he responded with: "There is no clear path." Then he asked, "Would you like vectors to the nearest landing field?" Knowing that our home field and our alternate, as well as our primary northern divers, were now blocked or unusable, I conceded and received vectors to a nearby airport — a civilian airfield with no cables.

The instrument landing system approach and landing were uneventful, but what we found out after landing

was an unpleasant shock: two AIM-9 seekers, multiple leading edge laminates, and all six navigation pods were severely damaged by the heavy precipitation associated with the strong thunderstorm cells. The result: a Class B safety incident. An incident that could have been and should have been avoided altogether.

As I contemplate the events of my birthday, I glean several key lessons learned:

First, stay ahead of the game. It's never over until it's over! Over 2,000 miles of uneventful travel through clear air can cause you to let your guard down about how important fuel and/or information can become in the final 200 miles. I exposed my flight to dangerous weather because I put it in a fuel critical state and was forced to choose between the lesser of two evils. Make a conservative call early so you do not have to make unpleasant decisions later.

Second, break conventional paradigms of alternate fields. During this sweaty brain buster, another civilian airfield was easily within divert range, and it had excellent weather. While not one of our "usual" alternate options, it was in our in-flight guide and had fighter operations as well as sufficient runway. During this evolution, never was the idea of diverting there thought of, nor offered as a solution. We were so intent on landing at one of our "standard alternate bases" that we drove through a severe storm and missed a perfectly legitimate landing field trying to satisfy our narrow paradigm. We needed to have thought outside of the proverbial box and landed at a safe airport instead of the prescribed alternate which lay on the wrong side of several large thunderstorms.

Third, use all the resources available. In a six-ship of F-15Es there are 12 brains that can be tapped into or tasked. Use them. Get weather, have the approach at the secondary field ready, etc. Alternately, if you are brain number three through 12, don't just assume flight lead has it all doped out. On a non-interference basis, offer assistance or alternate solutions (i.e., "One, have you thought about this?"). Be ready without asking with approach plates, frequencies, etc. In other words, through proper crew resource management and avoiding the halo effect, you maximize mutual support.

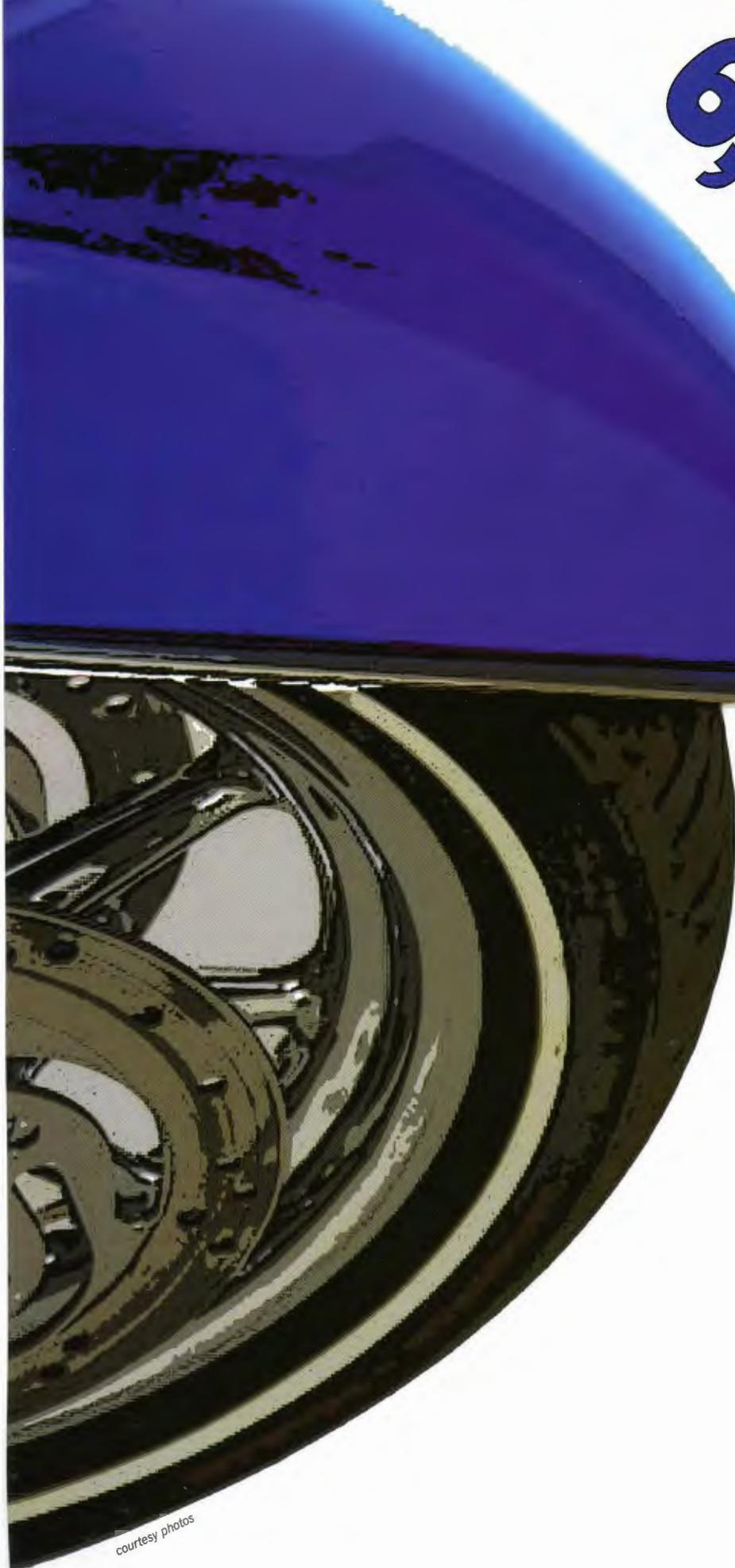
The incident on my birthday last year could have been avoided with increased mutual support and by thinking outside stale paradigms with regards to alternate landing fields. As always, never let your flight discipline down until your boots are firmly back on the ground. ✪

9 Facts:

Interesting

- Thunderstorms happen nationwide (even in Alaska), but Florida has the most with 80 to 100+ thunderstorm days a year.
- One inch of rain over one square mile equals 17.4 million gallons of water weighing 143 million pounds (about 72,000 tons), or the weight of a train with 40 boxcars.
- The largest hailstone recovered in the US was in Aurora, Neb., on 22 Jun 03 with a diameter of 7" and a circumference of 18 3/4". The heaviest hailstone fell in Coffeyville, Kan., in 1970 and weighed in at 1.67 pounds.
- Hail causes \$1 billion in damages to crops and property each year.
- Hailstones can fall at speeds up to 120 mph.
- Lightning is simply a gigantic spark of static electricity (the same kind of electricity that sometimes shocks you when you touch a doorknob).
- At any given moment, there can be as many as 2,000 thunderstorms occurring across the globe. This translates to more than 14.5 million storms each year. NASA satellite research indicated these storms produce lightning flashes about 40 times a second worldwide.
- Lightning can deliver as much as 300,000 amps and one billion volts per strike. It can be as hot as 54,000°F (30,000°C), a temperature that is five times hotter than the surface of the sun.

*Statistics courtesy of
HQ ACC/A3WV*

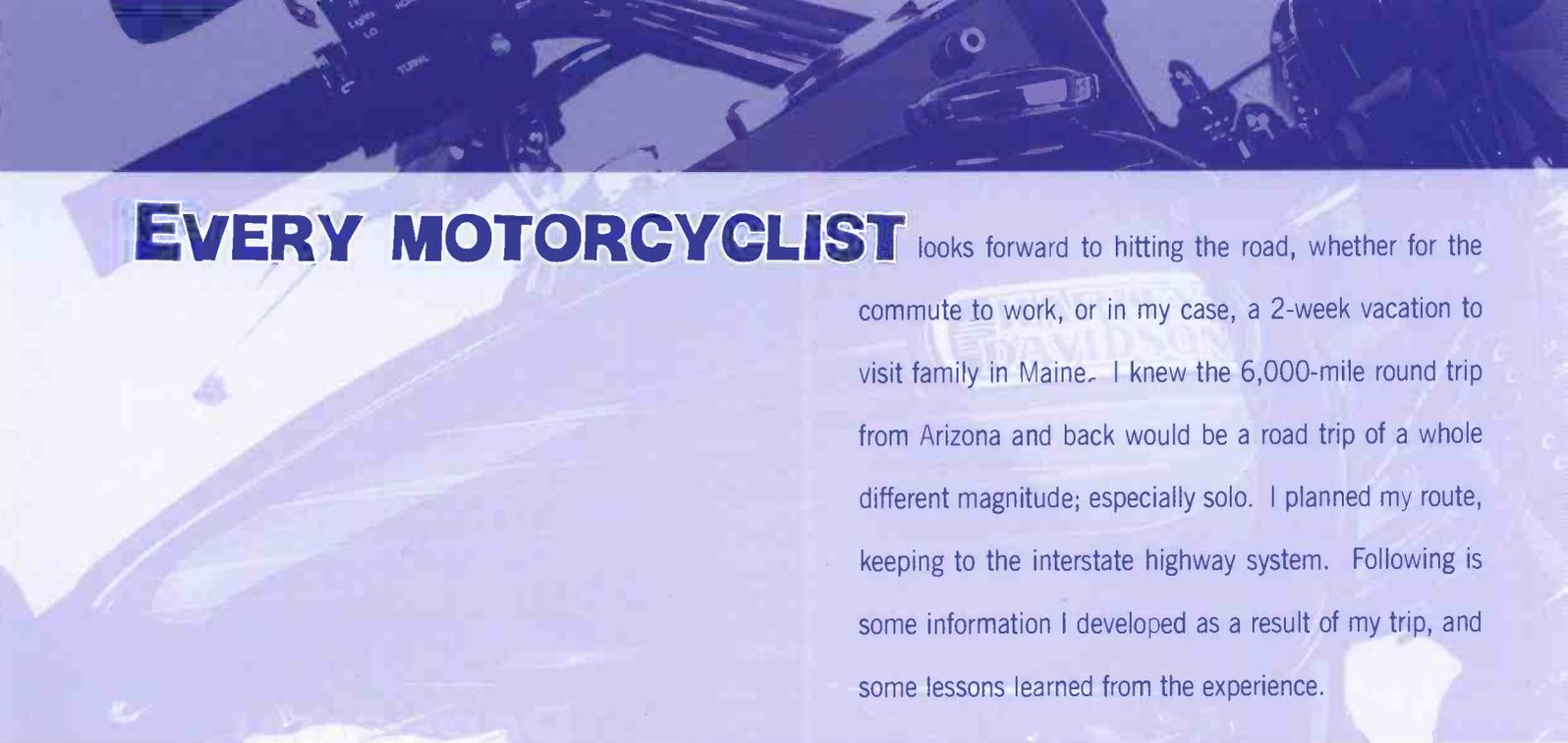
A close-up photograph of a blue car's front fender and wheel. The car is positioned on the left side of the page, with the fender curving downwards and the wheel visible below it. The background is a plain, light color.

6,000-MILE

ROAD TRIP

by Mr. Greg Peary, Luke AFB, Ariz.

courtesy photos



EVERY MOTORCYCLIST looks forward to hitting the road, whether for the

commute to work, or in my case, a 2-week vacation to visit family in Maine. I knew the 6,000-mile round trip from Arizona and back would be a road trip of a whole different magnitude; especially solo. I planned my route, keeping to the interstate highway system. Following is some information I developed as a result of my trip, and some lessons learned from the experience.

PRE-TRIP MUSTS:

Be VERY familiar with your motorcycle, its capabilities, handling characteristics, and idiosyncrasies. I had logged more than 24,000 miles on this motorcycle before the trip.

If you have never taken a rider course, or if it's been several years since your last class, sign up for a refresher. It will help re-establish good habits and eliminate some potential bad habits you may have developed.

Have the motorcycle checked by an experienced mechanic, making sure the oil has been changed and the drive mechanisms (chain, belt, or shaft) are in top shape. If the bike is water-cooled, have the cooling system serviced. Ensure the tires are in good condition. Replace the brake pads and brake/clutch fluid, if needed. Replace the spark plugs and have the air cleaner serviced or replaced. If the battery is more than a year old, replace it. Bottom line: Your motorcycle is your life line. You take care of it, and it will take care of you.

Plan your route thoroughly. Write down all major route changes and highway loops around major cities. Review the plan daily to know what is coming up. I recommend a membership with a national agency, such as Rand McNally, that provides up-to-date information regarding road construction.

Obtain emergency road service coverage. I use the Honda Riders Club of America. For a nominal annual fee, I can obtain emergency road service and towing nationwide. Other agencies such as AAA offer similar services.

PACKING TIPS:

Caution: Don't overload the bike. Too much weight, especially with a high center of gravity, can cause handling problems.

Bring extra everything: spark plugs, engine oil, all sizes of fuses, two flashlights, extra batteries, second cell phone, extra ignition key, and battery charger.

Take a well-thought-out tool kit. My motorcycle is metric, so I needed a complete set of metric wrenches and sockets, as well as Allen wrenches, spark plug wrench, slip-joint pliers, snips, screwdrivers, adjustable wrench, pocket knife, a tire-patch kit, and duct and electrical tape.

Miscellaneous items: camera, rain gear, tie-down straps, bungee cord, sunscreen, road atlas, sunglasses (two pairs).



PERSONAL PROTECTIVE EQUIPMENT (PPE):

This cannot be overemphasized! Riding a motorcycle is one of the most dangerous activities a person can engage in. Protecting yourself and being visible helps keep you safe. A helmet is the single most important piece of equipment you can wear. I prefer a full-face model. A rugged riding jacket made of leather or synthetic material with built-in armor will afford added protection in the event of a mishap; so will steel-toed boots, leather chaps or pants, and full-fingered leather gloves. Bright-colored clothing or clothing with reflective striping help with being more visible. Wearing ear plugs reduces situational awareness when riding a motorcycle. The correct choice is to replace the "loud pipes."



RIDING STRATEGIES:

I learned the acronym "**SIPDE**" in a riding course I took 7 years ago: Scan, Identify, Predict, Decide, and Execute. **Scan** all the time. **Identify** what is going on; is the vehicle behind you going to pass? **Predict** what each of the vehicles around you might do next. **Decide** the actions you will take IF they do as you predict, and then **Execute** your plan. I practice the principle of SIPDE continuously.

Spacing: try to keep a reasonable distance between yourself and the vehicle ahead. A good rule is 2 seconds. If you can't see their side mirrors, chances are, they can't see you!

What about passing? I don't spend a lot of time alongside tractor-trailer rigs as they are big and dangerous. Wind buffeting and debris from a blown tire are potential hazards. I always give vehicles I'm passing a wide berth, moving to the left third of the passing lane.

Bad weather and night riding: I encountered fog, high winds and thunderstorms. When possible, take shelter until conditions improve; however, if you ride it out, stop, put on rain gear, and most of all, SLOW DOWN when traveling in unfavorable conditions! NEVER stop at an underpass — except for emergencies. What about riding at night? Don't override the illumination of the headlamp. Slow down to quickly react to hazards such as animals, tire pieces, and gravel in the road.

LESSONS LEARNED:

- Rest often. Riding a motorcycle is not only physically demanding, it's mentally fatiguing. You have to be 100 percent mentally focused all the time. I must stop to refuel every 120 miles, so I got off the bike, walked around, and stretched.

- Keep hydrated. Every time I stopped for fuel, I drank a bottle of water.

- Eat breakfast AFTER the first 100 miles. It makes the day seem a bit shorter.

- Stop when you're tired. I ended each day no later than 4:00 p.m.

- Check the motorcycle frequently. Check the engine oil and tire pressure at every stop, and make adjustments as necessary. I spent about 2 hours each day refueling. This affected my trip plan and resulted in an extra night's stay on each leg of the trip.

- Have cash (especially coins) easily available for tolls.

- Above all, ride safe and keep your bike shiny side up!

Reprinted courtesy of Road & Rec magazine.

DID YOU KNOW?

- Motorcycles have a death rate nearly 32 times higher than cars.
- Men between 21 to 24 years old who drive motorcycles between midnight and 4:00 a.m., have a road fatality risk 45,000 times higher than normal.

Other interesting tidbits:

- The highway death rate for cautious 82-year-old women is 60 percent higher than for risk taking 16-year-old boys.
- New England is the safest region for drivers.
- The safest passenger is a youngster strapped in a car seat and being driven during morning rush hour.
- Young male drivers, ages 16 to 23, have fatality rates four times higher than average.
- Drivers in their 40s and 50s tie for the lowest risk of dying in an accident.
- Large vans have less than half the death rate than the national average for cars.
- School busses have a death rate that is 1/50th that of the average passenger vehicle.
- The most deadly hour to drive is 2:00 a.m.
- Fewest deaths occur at 8:00 a.m.

Statistics courtesy of AAA

MONTHLY AWARD WINNERS – DECEMBER

CREW CHIEF SAFETY



Award of Distinction

SrA Lohman was performing a routine basic postflight/pre-flight operations inspection on an F-117A aircraft. As he walked around the aircraft, he manually raised all the flight controls to check for any binding, chaffing, or unusual noises. He raised the left outboard elevon on the aircraft and noticed it was making an audible clicking sound as it reached the center of the travel position. He then let it hang down on its own weight and noticed that the same noise was occurring when he let the elevon down. He immediately began inspecting the elevon hinge U-Molding, left outboard elevon, and upper and lower elevon seal panels for any contact with the left outboard elevon. When he found nothing unusual, he notified the flight line expeditor. SrA Lohman showed the flight line expeditor the discrepancy and removed the left outboard elevon integrated servo actuator panel for further investigation. SrA Lohman had another maintenance technician raise the elevon in question and identified several loose hi-locks on the Brooklyn Bridge Top Cap. Because this area is not in the technical data to inspect under these cir-

SrA Matthew Lohman
49th Aircraft Maintenance Squadron
49th Fighter Wing
Holloman AFB, N.M.

cumstances, it was SrA Lohman's vast system knowledge and training that led to further inspection. He also determined that the lower bridge cap was moving approximately 0.0625 of an inch when the elevon was raised and lowered. The maximum deflection slippage limit allowed for the lower bridge cap is 0.005 of an inch. The outstanding diligence, situational awareness, and professionalism of SrA Lohman prevented a catastrophic loss of flight controls, averting possible injury to personnel and loss of a highly valuable aircraft.



PILOT SAFETY



Award of Distinction

Capt Thomson was flying as #2 of a two-ship of F-16s on an Operation IRAQI FREEDOM close air support combat sortie. After working with ground forces for approximately 30 minutes, Capt Thomson and his flight lead proceeded to the air refueling track to refuel. Somewhere en route to the tanker, Capt Thomson's oxygen regulator began to malfunction causing a gradual onset of hypoxia. Approximately 45 minutes into the sortie, Capt Thomson was on the boom of the tanker when he began to feel noticeably tired and lethargic. After another 5 minutes, he realized there was something wrong. He separated from the tanker and notified his flight lead that he had a problem. While still in a mentally degraded state, Capt Thomson switched to 100 percent oxygen where the regulator malfunction was compounded, allowing no air into his mask at all. Capt Thomson's hypoxic symptoms quickly increased and he started seeing black spots and became very sleepy. He recognized a malfunction with the regulator and correctly assessed he needed to start a rapid descent while troubleshooting the regulator malfunction. With his flight lead in a chase position, he leveled off at 12,000 feet

Capt Brody J. Thomson
421st Fighter Squadron
388th Fighter Wing
Hill AFB, Utah

mean sea level where his hypoxic symptoms decreased and he found a working setting on the oxygen regulator. After holding for approximately 10 minutes at the lower altitude and ensuring he had no more symptoms, Capt Thomson landed uneventfully from a straight-in approach. Capt Thomson's high level of training and expertise allowed him to recognize an extremely dangerous situation and to resolve it before it became unrecoverable.



WEAPONS SAFETY



Award of Distinction

MSgt Brown, showed superb performance in a continuous manner in all aspects of munitions awareness and safety while serving as primary Additional Duty Weapons Safety Representative for the Survival Equipment Element. His expertise and phenomenal management abilities of munitions items resulted in an "Outstanding" rating during the last wing Safety office's Weapons Safety Program Assessment. Furthermore, MSgt Brown authored the element's Munitions Safety Lesson Plan that was lauded by higher headquarters as "best seen to date" and adopted by multiple Air Force units. Additionally, as shop NCOIC, he orchestrated the flawless completion of a critical Time Compliance Technical Order to inspect all SCOT automatic parachute release systems in order to ensure correct configuration of this vital life-saving asset. His tireless efforts resulted in the completion of 60 BA-22 personnel parachutes with zero mis-

MSgt Joe K. Brown, Jr.
940th Maintenance Squadron
9th Reconnaissance Wing
Beale AFB, Calif.

sion degradation items. Finally, MSgt Brown provided courtesy inspections to multiple wing agencies in preparation for various higher headquarters inspections. His proactive efforts and teamwork attitude ingrained a rock-solid culture of safety awareness and risk management in his squadron, as well as other units on base.

UNIT SAFETY



Award of Distinction

Since the 376 ECES/Electrical System Shop arrived at their deployed location, they have been the epitome of "Mission First - Safety Always." This is the first known team to deploy to the Area of Responsibility with and properly utilize Arc-Flash Personal Protective Equipment (PPE). These coveralls, under garments, rubber gloves, and face shields are all rated to safely work on up to 15,000 volt systems where temperatures can be extreme if an arc flash occurs. All safety precautions and PPE were utilized when trenching equipment severed a high voltage circuit (4,160 volts). The electricians responded quickly wearing their Arc-Flash PPE and using all appropriate high voltage testing and grounding equipment. The area of the damaged cable was isolated to ensure safety of all base personnel and power was restored within an hour to critical facilities. Danger tags were installed on equipment that was in abnormal condition, until the splice on damaged cable was completed. To date, this highly dedicated team of professionals has completed more than 200 electrical work requests without a single mishap.

Electrical System Shop
376th Expeditionary Civil Engineer Squadron
USCENTAF



MONTHLY AWARD WINNERS – DECEMBER

GROUND SAFETY



Award of Distinction

Mr. Dan J. Heald
5th Bomb Wing
Minot AFB, N.D.

Mr. Heald assists with the management of a safety program for 12,430 members who operate globally. He designed and developed an effective traffic safety program recently identified as a Numbered Air Force standard during a Staff Assistance Visit. It highlighted accountability, leadership, and training. As Hazard Abatement Program manager, he reduced over 50 percent of the wing's hazards this quarter while simultaneously compiling a flawless 8th Air Force annual report. His safety oversight of 75 major construction projects ensured the vital protection of over 10 million dollars in resources while ensuring zero mishaps! His co-development of an Air Force Occupational Safety & Health/Occupational Safety & Health Act (AFOSH/OSHA) safety standard checklist ensured full compliance and culminated in the wing's Ground Safety office's nomination for the Air Combat Command Outstanding Achievement Award for Ground Safety. Mr. Heald's identification and analysis of environmental conditions which affected 300 personnel, led to the abatement of an asbestos hazard. As the wing's Confined Space

Administrator, he revamped a once defunct master entry plan process to ensure full compliance with AFOSH/OSHA standards. His safety briefs for deploying troops successfully generated 122 short tons of cargo, over 300 personnel and countless combat sorties without a mishap! As a seat belt program pioneer, he teamed with Security Forces to initiate an aggressive vehicle occupant restraint program, ensuring a strong base-wide 98 percent or above usage rate. He proactively pursued Jet Engine Mishap Investigation Course certification this quarter, which will vastly bolster engine investigation capabilities command-wide.



FLIGHT LINE SAFETY



Award of Distinction

Capt Ross Franquemont
99th Reconnaissance Squadron

Mr. Stephen Schweitz
1st Reconnaissance Squadron
9th Reconnaissance Wing
Beale AFB, Calif.

Capt Franquemont, a qualified U-2 high altitude reconnaissance pilot, was performing duty as the mobile pilot in the chase car. This is a requirement due to the limited visibility and difficult landing characteristics of the U-2 aircraft. Mr. Schweitz, a contract videographer, was filming a U-2 student training sortie conducting touch-and-go landings in the base's aircraft traffic pattern. While waiting for the next approach, Mr. Schweitz noticed fluid leaking from a second U-2 aircraft that was in the aircraft traffic pattern. He quickly notified Capt Franquemont via the land mobile radio, describing the leak and where on the aircraft he thought the fluid was originating. Capt Franquemont made radio contact with the aircraft's pilot, informed him of a possible leak, and the necessity to verify it on the next touch-and-go. Upon the U-2's touchdown, Capt Franquemont confirmed the leak, suspected it was fuel, and determined that the leak's nature and severity warranted immediate action, directing the pilot to make a full-stop landing. When the aircraft

came to a complete stop, the pilot, who had no cockpit internal indications of a fuel leak, observed fuel pouring from the left wing and shut down the engine to minimize the potential for fire. After the fire crew responded and secured the area, the pilot safely and successfully evacuated the aircraft. Separate, and as a team, Mr. Schweitz and Capt Franquemont performed flawlessly in taking the necessary action to save an Airman and a high-value national asset.

AIRCREW SAFETY



Award of Distinction

Capt Baugh and Maj Heidt were the #2 aircraft in an F-15E four-ship transition course Surface Attack Night training sortie. After receiving an avian hazard advisory system update, they descended down into a planned low level and proceeded to the range. Due to a problem with the terrain following radar, the crew elected to fly the low level at minimum safe altitude in accordance with Air Force Instruction 11-2F-15E, Volume 3, and bird aircraft strike hazard procedures. While flying at 3,000 feet, the crew heard a loud thud and the aircraft began to vibrate violently. A flock of Blue Herons had hit the aircraft; one was ingested by the #2 engine and the left wing had sustained damage. Capt Baugh immediately began a climb away from the ground and Maj Heidt called a “knock-it-off” over the radio. The #2 engine caught fire so they shut it down and discharged the fire bottle. Maj Heidt ensured no steps had been missed in the checklist, then Capt Baugh turned the aircraft around and pointed it towards base while calling a for a battle damage check. Capt Baugh’s flight lead noticed burn marks below the engine and venting from the engine bay, but the smoke had stopped. The engine fire light remained on and several other lights illuminated after engine shutdown, including right bleed air, environmental control system and fuel hot cautions. After extensive coordination with the supervisor of flying and air traffic control, the crew

**Capt Matt L. Baugh
Maj Ahren D. Heidt
334th Fighter Squadron
4th Fighter Wing
Seymour Johnson AFB, N.C.**



dumped gas to get to a safe landing weight before executing a flawless single-engine approach and landing. The engine fire light finally extinguished in the flare as Capt Baugh brought the aircraft to a stop with 3,000 feet of runway remaining. The aircrew then shut down the left engine and accomplished an emergency ground egress, successfully recovering a 54 million dollar Air Force combat asset.

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BTW:

Due to a server crash, any article submissions between July and December were not recovered. Please, please, please resend.

MONTHLY AWARD WINNERS – JANUARY

PILOT SAFETY



Award of Distinction

1st Lt Tompkins was flying an F-15C, as #3 of a three-ship air combat training sortie. The sortie was one of Lt Tompkins first flights after completion of mission qualification training at his operational squadron. While on departure in Instrument Meteorological Conditions (IMC), Lt Tompkins experienced a left Airframe-Mounted Accessory Drive (AMAD) failure with associated electronic and hydraulic warning lights. He immediately applied all the critical action items from the checklist while informing his flight lead and initiating a rejoin. Before the rejoin was completed, while still in IMC, Lt Tompkins experienced an unrelated right generator failure, leaving him with the emergency generator as the sole electrical source for his aircraft. With nearly all of his navigational systems inoperative, while still in weather, Lt Tompkins successfully accomplished all applicable checklist procedures while climbing to visual meteorological conditions and completing the rejoin. Following a battle damage check, Lt Tompkins initiated a return to Eglin AFB, Fla., flying

1Lt Daniel F. Tompkins
58th Fighter Squadron
33rd Fighter Wing
Eglin AFB, Fla.

on the wing in close formation. Lt Tompkins also noted that the engine nozzles had failed in the closed position which increases thrust in idle power and results in a longer landing rollout. The F-15C checklist suggests shutting down an engine with this aircraft malfunction to reduce stopping distance, but Lt Tompkins wisely chose to keep both engines running because of his associated AMAD failure, and elected instead to dump fuel to reduce gross weight to allow for the safe recovery of his aircraft. After a flawless approach, Lt Tompkins touched down on the runway and found that the brakes had failed due to another unrelated hydraulic failure. He made a quick decision to lower the arresting hook and engage the departure end cable. The cable arrestment was uneventful and brought a safe end to this sortie affected by an extremely complex sequence of multiple emergency procedures in IMC.

FLIGHT LINE SAFETY



Award of Distinction

SrA Neagle and SSgt MacDonald responded to an E-3 aircraft for a Class II fuel spill caused by fuel venting overboard during a post-flight refueling. At the conclusion of the fuel spill cleanup, SrA Neagle and SSgt MacDonald performed an operational checkout of the fuel surge tank vent system and discovered five gallons of fuel remained in the system. The technical orders troubleshooting procedures led them to a faulty surge tank check valve. SrA Neagle and SSgt MacDonald removed and replaced the check valve and proceeded with the operational check. During the check, they discovered the #4 main tank did not shut off properly and the aircraft again vented fuel. One of the two fuel level control valves in the #4 main tank refueling system failed to close. After replacing the failed valve, they continued with the operational checkout discovering the #4 main tank still did not shut off properly and once again vented fuel. Following the current troubleshooting procedures, they found the valve they had just replaced was faulty. SrA Neagle and SSgt MacDonald believed that the possibility of two valves failing in

SSgt Joel MacDonald
SrA Dale Neagle
SSgt Robert Balthrop
A1C Daniel Shoemaker
552nd Component Maintenance Squadron
552nd Air Control Wing
Tinker AFB, Okla.

the exact same manner was remote and decided to investigate the problem further to determine the root cause. To do so, they enlisted the help of two aircraft electricians, SSgt Balthrop and A1C Shoemaker. The team checked the electrical operation of the dual pilot valve that controls the two fuel level control valves, causing the valves to shut off fuel to the tank when a predetermined level is reached. The problem was a faulty circuit on the dual pilot valve assembly. Together, the four of them completely rewrote the operational checkout procedures, clarifying required steps to accurately troubleshoot the fuel surge system and prevent future environmental mishaps. These hard-charging Airmen eliminated a problem that would have continued to plague the E-3 community and cost countless man-hours of troubleshooting, wasted parts, lost sorties, and potential mishaps.

CREW CHIEF SAFETY



Award of Distinction

SSgt Jeffery Roberts
5th Aircraft Maintenance Squadron
5th Bomb Wing
Minot AFB, N.D.

While performing a panel inspection on a B-52H aircraft, SSgt Roberts discovered a popped circuit breaker on the #5 generator panel. Upon further inspection, he discovered a melted cannon plug leading to the forward battery heater. At the time of discovery, the aircraft was in the process of a preflight and panel inspection. If it were not for SSgt Roberts' keen attention to detail, an electrical fire could have occurred, causing extensive damage to the aircraft. His attentiveness and

safe maintenance practices averted the potential loss of the aircraft, as well as potentially saving the lives of the ground and flight crews that would be working and flying the aircraft the next day.

GROUND SAFETY



Capt Pugh, 1Lt Holtz, 1Lt Kelly, and Capt Steele were traveling on Interstate 35 North at 2:30 a.m. The temperature was just above 50 degrees and there was a steady rain when they saw a smashed SUV in the middle of the left-hand lane and another smaller car on the right-hand shoulder. The driver, Lt Kelly, narrowly avoided a collision with the smashed SUV and immediately realized a collision had just occurred and they were first on the scene. Lt Kelly pulled over on the shoulder and called 911 right away. Lt Holtz checked the passengers in the smaller car and instructed one with a back injury to not move until the paramedics arrived. Lt Holtz then joined Capt Pugh who was at the SUV where they found both passengers unresponsive. Capt Pugh attempted to activate the flashing hazard lights, but the front of the SUV was totaled and had no working headlights. Lt Holtz and Capt Pugh then searched for reflective triangles or flares to place on the highway, but could not find any. While Capt Steele and Lt Kelly were assisting the passengers from the other car, the officers noticed a vehicle approaching rapidly, traveling at the posted 70 miles per hour speed limit. When it showed no indication of slowing down or changing lanes, they yelled for everyone to clear the highway and get as far away from the road as possible. At the last second, the approaching car slammed on the brakes, swerved and sideswiped the front corner of the SUV. Capt Pugh and Lt Holtz then flagged down the driver of another car and asked him to activate his emergency lights be-

Capt Adam Pugh
1Lt Mike Holtz
1Lt Dave Kelly
552nd Training Squadron

Capt Eric Steele
960th Airborne Air Control Squadron
552nd Air Control Wing
Tinker AFB, Okla.



tween the wrecked SUV and traffic to warn approaching vehicles. Because cars continued to travel at high rates of speed down the open lane of the interstate, Capt Pugh, Capt Steele, and 1Lt Holtz got a tractor-trailer to block the open lane and halt all northbound traffic. The officers secured the scene and kept the accident victims safe until police and emergency personnel arrived. Their decisive actions certainly prevented further injury or loss of life.

ACC SAFETY SALUTES

SUPERIOR PERFORMANCE

Eighth Air Force

1Lt Allen S. Clark
T-38 Instructor Pilot
Capt Geoffrey M. Steeves
T-38 Flight Pilot
394th Component Training
Squadron
509th Bomb Wing
Whiteman AFB, Mo.

Capt Jeremy M. Roth
Pilot
38th Reconnaissance Squadron
55th Wing
Offutt AFB, Neb.

Capt Christian Egan (AC)
Capt Ryan Isokane (CP)
Capt Robert Stevens (NAV)
SSgt William Fay (FE)
Lt Col Steven Hurteau (IMCC)
Lt Col Kel Robinson (MCC)
Maj Scott Kohl (MCC)
SrA Cassady Engle (ART)
SrA Jose Zayas-Zambrana (ART)
964th Airborne Air Control
Squadron
552nd Air Control Wing
Tinker AFB, Okla.

Lt Col Norm Worthen
Lt Col Paul Von Osterheldt
Lt Col Wayne Kelm
Capt Josh Holmes
Capt Bubba Pope
Lt Wes Kissel
Lt Joshua Hamm
Lt David Scott
B-52 Aircrew Members
23rd Bomb Squadron
5th Bomb Wing
Minot AFB, N.D.
A1C Justin G. Barao
Repair and Reclamation Team Mbr
552nd Equipment Maint. Sq.
552nd Air Control Wing
Tinker AFB, Okla.

Mr. Jack A. Guidry
Lead Firefighter
2nd Civil Engineer Squadron
2nd Bomb Wing
Barksdale AFB, La.

SrA Marc M. Riendeau
Munitions Controller
9th Munitions Squadron
9th Reconnaissance Wing
Beale AFB, Calif.

5th Logistics Readiness Squadron
5th Bomb Wing
Minot AFB, N.D.

5th Operations Support Squadron
5th Bomb Wing
Minot AFB, N.D.

Ninth Air Force

Capt Michael D. Schaner
F-22 Pilot
27th Fighter Squadron
1st Fighter Wing
Langley AFB, Va.

SSgt Jeremiah D. Broersma
NCOIC, AR Repair Shop
376th Expeditionary A/C Maint. Sq.
Deployed

Capt Vera C. Moses
Clinical Nurse
20th Medical Operations Squadron
20th Fighter Wing
Shaw AFB, S.C.

MSgt James M. Powell III
NCOIC, Aerospace Physiology
20th Aeromedical-Dental Squadron
20th Fighter Wing
Shaw AFB, S.C.

Twelfth Air Force

Maj Steven Dantzler, Pilot
Maj Robert Davidson, WSO
1Lt Dave Robertson, WSO
28th Bomb Squadron
Capt Jeff Donhauser, Pilot
9th Bomb Squadron
7th Bomb Wing
Dyess AFB, Texas

USAF Warfare Center

Lt Col Gregory Marzolf
Commander
64th Aggressor Squadron
Nellis AFB, Nev.

Maj John Erickson
Predator Instructor Pilot
Mr. Joe Janker
Sensor
11th Reconnaissance Squadron
57th Wing
Nellis AFB, Nev.

Maj Daniel M. Fesler
Weapons Flt CC
433rd Weapons School
57th Wing
Nellis AFB, Nev.

FY07 Aircraft

As of February 1, 2007

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

FY07 Ground

As of February 1, 2007

	Fatal	Class A	Class B
8 AF		1	2
9 AF		1	0
12 AF		2	2
DRU's		1	0

 = Fatal  = Fatal due to misconduct

FY07 Weapons

As of February 1, 2007

	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 finished December without any Class A mishaps, but we had two in January. An MQ-1 lost power and crashed in the AOR, and an ACC gained F-16C experienced an engine failure. The pilot successfully ejected. This issue's articles are focused on weather with good reason -- we experience a lot of preventable damage and thunderstorm season is right around the corner. We have some new products coming out to better serve you. Our monthly Safety Special Interest Item, "Safekeeping," highlights ACC focus areas for all safety disciplines. We are also working to deploy a new web-based MACA resource called SEEANDAVOID.ORG. The goal is to set an ACC standard and improve overall airspace awareness for both military and civilian aircrew.

Ground Notes

ACC experienced one Class A mishap in January. An Airman was lost when he was caught up in a riptide and washed out to sea. The command also experienced two Class B property damage mishaps, both involving aircraft. As you go about your daily tasks both on and off duty, please remember to use ORM and PRM principles to do those tasks safely.

Weapons Notes

ACC experienced one Class D mishap over the past several months. However, the cause of the mishap remains the same as so many others; personal attention to detail. An inspection section technician was tasked to demil a fire extinguisher cart and ship a fire extinguisher cart that had an expired shelf life. Both carts ended up in the same container. When the technician was going to demil the cart, he did not verify which cart was which and hit the wrong cart with a hammer. The cart exploded, injuring a crew member. This mishap could have been avoided if the technician would have paid more attention to details.

Symbols for Mishap Aircraft



Fleagle

