101 Critical Days of Summer–2007

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Air Scoop

Summer 2007

All you need to know for a safe, fun summer

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AIR SCOOP
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Front cover: Members of the Sembach 786th Security Forces go airborne off the back ramp of a C-130 during a tactical training exercise over Southwestern Germany. Photo by A1C Kenny Holston

2006 MarCom Creative Awards Platinum Winner

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Wilbur's Words

Col. Robert G. Wright, Jr.
Director of Safety

I don't know about you, but I have been enjoying the wonderful weather here at Ramstein. I'm really looking forward to the fantastic summer ahead. We went straight from winter into summer. *(It could be a hot August!)* As I say that, the safety side of my brain *(yes, I do have a brain and have pictures to prove it! However, we won't discuss the size)* starts flashing through thoughts of Ground Safety *(101 Critical Days of Summer, sports and recreational injuries, industrial mishaps, wine fests and PMV/motorcycles mishaps, BBQ grill incidents, July 4th fireworks, and driver's fatigue while traveling)*, Flight Safety *(gliders and parachutist near misses, increased civilian planes/VFR traffic)* and Weapons Safety *(unexpected booms!)*. Wow! There are a lot of hazards and potential mishaps out there, and I guess you can't put everyone in a plastic bubble. Wait, why not! I bet we could get a special deal if we buy personal plastic bubbles in volume…I guess not. I'm getting the east to west (left to right) cranium shake from both my Deputy and Chief.

Instead of issuing plastic bubbles for everyone, here's what we at USAFE/SE have done to help prevent mishaps this summer. By now, you have heard the media push on the 101 Critical Days of Summer. We have partnered with USAFE Services to implement Gold Eagle standards to reduce the number and severity of sports and recreational injuries. A couple of examples are break away softball bases and softer core softballs. We have also forwarded each Wing's safety office areas to focus on in industrial complexes and checklists to cover prior to the beginning of 101 Critical Days of Summer. Lastly, we have increased the personal protection requirement on motorcycle helmets. All of USAFE motorcyclists must now have Economic Community of Europe (ECE) regulation 22.05 certified helmets.

There are other summertime problems that make you wish you could put yourself in a bubble. Fireworks is one. Let the professionals do it. It is not worth losing a finger or your hearing, and it may be against the law in your host country. Another is BBQ grills. Follow the safety instructions when playing chef on your brand new BBQ grill. The grill may look good, but it is hard to look cool after you burn your eyebrows off. One more example is traveling. Before you leave, make sure that you are well-rested and your vehicle is in good shape.

Personal plastic bubbles would be very difficult to fit into the cockpit, so my flight folks have been talking up the hazards with the Wings and Host Nation counterparts. The big picture is: don't hit each other, don't hit another aircraft, and don't hit the ground or anything attached to it. This weather is likely to increase traffic aloft, and on partially cloudy days everybody will be fighting for the same VFR workable airspace. Craniums outside of the cockpit!

Weapons folks, there is no plastic bubble for you. Your work environment is inherently risky. Winter, spring, summer or fall you need to be aware of your surroundings. This time of year don't let the distractions of summer cloud your vision or divert your attention. Your first line of defense is to remain focused on the task at hand.

The bottom line: you don't need a plastic bubble. All you need to do is assess the risk and make the right choices. Enjoy the wine fest, but DON'T DRINK and DRIVE! Build a safety net between you and your wingman, and help each other make the right choice.

The Bad News: summer brings increased risk.

The Good News: risk is manageable—you are key!

Your life; your choice; choose wisely!

Are you ready?

By TSgt Russell F. Devino
HQ USAFE/SEG
Ramstein AB, GE

The 101 Critical Days of Summer (101 CDS) campaign is finally upon us. This annual campaign, Memorial Day weekend through Labor Day weekend, has been around since the early 1980's to combat the traditional increase in Air Force mishaps and fatalities that occur during the summer months. The campaign seeks to reduce the number and severity of mishaps and fatalities by focusing on increased personal awareness of risk management.

The FY07 101 CDS campaign began 25 May at 1600 and will end on 4 September at 0700. During this period, longer hours of daylight and nice weather typically bring USAFE members outdoors to participate in an infinite number of activities. Many of these activities can cause serious injuries or prove fatal if proper risk management is not used. During the FY06 101 CDS campaign USAFE lost four valuable members to tragic mishaps that could have been easily avoided had proper risk management been taken into consideration and adequate controls implemented. For example, one member fractured his neck diving into shallow water and two other members were struck by passing vehicles and fatally wounded (see *Arrive Alive…Be Seen!,* on page 31).

It is human nature to underestimate the risks associated with our day-to-day routines and activities; however, we must combat this notion if mishaps are to be avoided. People believe they will not be injured or killed. In fact, most people think mishaps are something that only happens to "someone else". This thought process creates a feeling of invincibility which leads to poor risk assessment (or no assessment at all) of the potential hazards. By properly assessing the hazards associated with our recreational activities, we are better able to make the responsible choices that can mitigate risk and prevent mishaps.

Break down each activity into smaller steps and consider all the potential hazards in each step. What else could go wrong that you have not thought about? Ask, "what if?". You will increase the chance you have identified as many hazards as possible and when the hazards are clear, you can reduce the risks and make the best informed decision possible.

Never assume any task or activity is too simple to create a mishap. Something as simple as a barbeque can turn disastrous if the potential hazards are not taken seriously. Just talk to the many people who have either burned themselves or started unintentional fires. If you are going to: rock climb; hike; operate or be a passenger in a vehicle; or operate a motorcycle—whatever the activity, always take every step to minimize your risks. In other words, be prepared! Above all else, never mix alcohol with your summer activities as mishaps are sure to ensue.

To ensure USAFE has a successful 101 CDS campaign with zero fatalities, everyone must take part. Although each member is ultimately responsible for his/her own actions, Wingmen play a vital role in the process. As Airmen in the United States Air Force we are all Wingmen and have a responsibility to always look after one another. This same courtesy must be extended to our immediate family members since they are part of the Air Force team as well. It makes no difference if a particular Airman or family member is not on your Wingman card. If you see a fellow Airman, or his/her family member(s), making a poor decision that could result in serious injury or death, you must step up to the plate and do the right thing. By doing so, you will never have to live with the death of a person on your conscience.

Have a fun summer and be safe.

Hiking: Good for mind & body

By Roger Braner
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Hiking is a popular, inexpensive way to get out and take a break from daily life and yields benefits for both the mind and the body.

As a great form of cardiovascular exercise, hiking helps to decrease body fat, resting blood pressure and heart rate, increase HDL cholesterol, and as a weight bearing exercise it helps prevent osteoporosis. Also, being outside in the sunshine provides the body with vitamin D.

The mental health benefits of hiking are well noted. There's a feeling of relaxation and enhanced well-being that comes on after a few-mile hike in the woods. Hiking helps burn off the stress and provides the time to think without interruption as well as a wonderful way to see nature.

Since the unexpected happens, the best way to prevent mishaps and ensure a good time is to plan ahead carefully and follow common sense safety precautions. Contact your local Outdoor Recreation professionals for additional information on equipment, local trails, and organized excursions.

U.S. Department of Agriculture trail tips

- ❖ Do warm up exercises. Stretching gradually increases heart rate, temperature and circulation to the muscles.
- ❖ Start out slowly, gradually increasing your pace and distance traveled.
- ❖ Let the slowest person in your hiking party set the pace. This is especially important when children are part of the group.
- ❖ Hike only on marked trails in wilderness areas.
- ❖ Travel in groups as much as possible, especially in hazardous terrain.
- ❖ Leave your itinerary with a friend or family member and check in with them upon your return.
- ❖ Mountain weather is generally cooler, cloudier and windier than in lowland areas. For every 1,000 feet of elevation, the temperature often drops three to five degrees. Thus it's best to dress in layers. Polyester clothing worn closest to the skin will wrap warm air next to the skin and transfer or wick body moisture away.
- ❖ Wear sunglasses and a hat or visor. Snow blindness, caused by the sun's glare on snow, can also be caused by sunlight reflecting off water and boulders. Keep your eyes and face covered especially during your first few days outdoors.
- ❖ Bring sunscreen no matter the season.
- ❖ Bring a first aid kit.
- ❖ Develop an emergency plan before you start your trip. Make sure everyone knows what to do if they become lost or a medical emergency arises. Give children whistles with the instructions to "stop and blow" if they become lost.
- ❖ Take frequent rests or vary your pace to recover from strenuous activity spurts.
- ❖ Drink plenty of water. Take a tip from athletes: before a hike, drink some water so you will be hydrated and energized.
- ❖ Backcountry water supplies are unpredictable. It's better to arrive at a gushing stream with 1/3 quart water left, than to arrive at an empty stream and have no water left at all. Treat or filter all water.
- ❖ Pack carbohydrate-energy bars, granola, candy or fruit. They provide an instant pick-me-up on the trail.
- ❖ Give yourself about two hour's daylight to set up camp.

American Red Cross hiking checklist

- Cell phone
- Clothing (something warm, extra socks and rain gear)
- Compass
- First aid kit
- Food
- Flashlight
- Foil (to use as a cup or signaling device)
- Hat
- Insect repellant
- Map
- Nylon filament
- Pocket knife
- Pocket mirror
- Prescription glasses (extra pair)
- Prescription medications
- Radio and batteries
- Space blanket or a piece of plastic (to use for warmth or shelter)
- Sunglasses
- Sunscreen
- Trash bag (makes an adequate poncho)
- Water
- Waterproof matches or matches in a waterproof tin
- Water purification tablets
- Whistle

Hoops and Oops in the heat

By Roland Sikes
Staff Writer
The Mobility Forum

On the first nice Saturday last March, my buddy Nathan called to see if I wanted to shoot some hoops. We had endured a cold winter, so an invitation to get outdoors on an 80-degree day sounded too appealing to pass up. I slathered on some sunscreen, threw a couple of plastic bottles of water from the fridge into my duffle bag, and headed out.

Nathan was already warming up at the local outdoor court when I arrived for the impromptu basketball game, followed shortly by four of our other friends. We decided to play some "three on three," so we teamed up and began a friendly but competitive game. The warm sunshine felt good after spending so many damp, gloomy days inside.

About an hour into our game, Nathan missed an easy shot, and I teased him as I took the rebound. A minute or so later, he missed another. Suddenly, he just stopped and stood still in the middle of the court, looking dazed.

"Hey, man," I said. "You all right?"

Rather than answer, Nathan's legs simply gave out and he collapsed into a heap, hitting his head on the pavement. The five of us rushed over and gathered around his pale body. He was probably only out for a few seconds, but it seemed like an eternity. When he finally opened his eyes, he stared up at us, complaining of a headache. We figured his head hurt because of the fall and—despite his protests—took him to a nearby hospital emergency room.

Turns out what happened to him could have happened to anyone – even you. Nathan was suffering from heat exhaustion. Because he is young and physically active during the summer months, he thought he could resume his recreational activities in the spring where he left off in the fall when cold weather set in. Even though the temperature that day only hovered around 80 degrees, he was working out hard and failed to stay hydrated. I gulped down some bottled water on the way to his house and also drank regularly during our game. Nathan, on the other hand, did not consume any water that day and continued shooting baskets when the rest of us took time-outs to drink.

As the ER doctor administered fluids to Nathan through an IV, he reminded us about Korey Stringer, the Minnesota Vikings player who died from heat stroke in 2001. We mistakenly assumed such tragedies only

happened in the summer when it was much hotter and very humid. Instead, the doctor said dehydration can quickly lead to heat exhaustion or heat stroke *any* time, and people who exert themselves without replenishing fluids are especially at risk. He also cautioned us about strenuous activity after being inactive all winter, saying he sees a spike every year in heat-related illnesses, sprains, strains, torn ligaments and broken bones when the weather turns nice. The doctor's advice may save you from making the same mistake Nathan and others have made at the first sign of warm weather.

❖ **Don't overdo it initially** just because you were in great shape in the fall. When you've been cooped up all winter, start gradually! Even golfers should begin each spring by playing fewer holes or spending time at a driving range before ever hitting the course.

❖ **Warm up your muscles** with stretching exercises appropriate for the activity. The doctor said something as simple as jogging in place or doing jumping jacks can loosen up your muscles and prepare your body for a workout.

❖ **Increase your intensity level slowly** rather than giving it everything during your first few times out. In the case of our friendly basketball game, for example, we should have started by playing 15-20 minutes the first week and increasing it to 25-30 minutes the following week. Such advice would have sounded wimpy to us before Nathan's incident, but our group vowed to remember it after our close call.

❖ **Monitor your food and fluid intake**. The doctor suggested we eat a light meal before a workout – whereas Nathan skipped breakfast that day – and that we drink plenty of water before, during and after engaging in any physical activity, especially in hot weather. I had followed this rule, but I should have made sure my buddies did, too.

❖ **Pay attention to your body**. Nate said he felt dizzy just before he passed out, which would have been an indicator to stop and cool off if he had known the signs of dehydration. The doctor said we should also pay attention to little aches and pains during a workout because they can mean a joint is under stress or a muscle is not adequately warmed up. Heat cramps (muscle spasms)—usually in the abdomen, arms, or legscan occur with strenuous activity because sweating depletes the body's salt and moisture. Heat cramps may also be a symptom of heat exhaustion.

While softball, tennis, jogging or a friendly game of hoops can be great exercise, they can also be dangerous if you aren't physically prepared. Take it easy starting out, and watch out for your buddies, too.

Preventing heat-related illnesses

The Centers for Disease Control (www.cdc.gov) recommends these tips (and others) for preventing heat-related illnesses:

✔ Drink more fluids (nonalcoholic), regardless of your activity level. Don't wait until you're thirsty to drink.

✔ Avoid very cold drinks because they can cause stomach cramps.

✔ Wear lightweight, light-colored, loose-fitting clothing.

✔ Limit your outdoor activity to morning and evening hours.

✔ If you exercise, drink two to four glasses of cool, nonalcoholic fluids each hour. A sports beverage can replace the salt and minerals you lose in sweat. Warning: If you are on a low-salt diet, talk with your doctor before drinking a sports beverage.

✔ Try to rest often in shady areas.

Warning signs of heat-related illnesses

The warning signs of ***heat exhaustion*** include heavy sweating, paleness, muscle cramps, tiredness, weakness, dizziness, headache, nausea or vomiting or fainting. Move to a cool area and drink cool liquids if you experience these symptoms. Seek medical attention if symptoms do not subside.

Warning signs of ***heat stroke*** vary but may include extremely high body temperature (above 103°F), skin that is red, hot and dry (no sweating), a rapid pulse, throbbing headache, dizziness, nausea, confusion or unconsciousness. Call for help immediately if you suspect heat stroke.

Reprinted from *The Mobility Forum*

Under the sun

By Capt Almaira Feist
USAFE/SEW
Ramstein AB, GE

All winter I wait for the warm weather so I can spend time outdoors. I'm sure many of you do the same. I never gave this a second thought until one day when my neighbor revealed he had been diagnosed with skin cancer. I was shocked. I heard about it, read about it, but never met anyone who was diagnosed with it. I decided it was time to learn more about skin cancer and whether I was doing enough to protect myself and my family. We can all enjoy the outdoors by deciding to make the choice to be responsible for ourselves and our family members. We can't afford to take sun's power for granted.

According to the American Cancer Society, most of the more than one million cases of nonmelanoma skin cancer diagnosed yearly in the United States are considered to be sun-related. Everyone needs to be aware of the consequences of intense exposure to the sun's ultraviolet (UV) rays and how these rays will negatively affect our bodies. One recent example was after having PRK (photorefractive keratectomy) surgery to correct my vision. After the surgery, the doctors instructions were to protect my eyes from the sun's UV rays by wearing sunglasses. I thought about how many times before I wore sunglasses without giving it a second thought. The significance of taking care of my eyesight now and how it will pay huge dividends later became apparent.

Besides caring for our eyesight, we must care for our skin. One of the main reasons people intentionally stay out in the sun is to get that "tanned look". Tanning is a technical term for the skin's reaction to UV radiation and the skin's natural defense against further damage from UV radiation. When skin is exposed to UV rays, cells called melanocytes produce the brown pigment melanin, which darkens the cells of the epidermis (skin). These enzymes help repair the DNA damage caused, but not always successfully. The damage is what can lead to mutations that increase the risk of skin cancer. Also, repeated unprotected sun exposure can cause photoaging, i.e., wrinkles, sagging skin, and spots. And for those new to the military who may think they can show up to duty looking like lobsters—think again. Regardless of the type of sunburn, if you receive sunburn through negligence (e.g. poor choice), commanders are allowed to punish under the UCMJ. Why test the waters?

Life is too short and choosing not to be more careful isn't fair to yourself or your loved ones.

Helpful hints from the Skin Cancer Foundation:

- ✔ **Use a sunscreen with an SPF of 15 or higher every day.**
- ✔ **Apply 1 ounce (2 tablespoons) of sunscreen to your entire body 30 minutes before going outside. Reapply every two hours.**
- ✔ **Cover up with clothing, including a broad-brimmed hat and UV-blocking sunglasses with wraparound or large frames protect your eyelids and the sensitive skin around your eyes. Sunglasses also help reduce the risk of cataracts later in life.**
- ✔ **Keep newborns out of the sun. Sunscreens should be used on babies over the age of six months.**
- ✔ **Examine your skin head-to-toe every month.**
- ✔ **See your physician every year for a professional skin exam.**

Daily sunscreen use protects skin

Stay wrinkle, cancer free with SPF wear guide

By SrA Sarah Gregory
31 FW/PA
Aviano AB, IT

With all the different types and brands available, it can be confusing trying to figure out the best kind to get. Turns out, there is more to it than just choosing one with a high Sun Protection Factor (SPF).

"The idea that high SPF is all that you need for full protection is a myth," said TSgt Gina Francis, 31st Aerospace Medicine Squadron, Human Performance Training Team (HPTT) NCOIC.

"SPF 30, for example will give you the protection, but only from one type of sun ray, UVB rays."

UVB rays are short ultraviolet rays that cause sunburns. These rays penetrate more deeply beneath the skin and are responsible for wrinkles, cancer and premature aging.

"Many products claim they block UVA and UVB rays, but because there is no FDA approved measure of how well a product screens out UVA rays, it can be deceiving," said TSgt Francis.

The best way to protect against this is to read the fine print, which should list the items that protect against UVA rays.

TSgt Francis advises looking for two key ingredients—Helioplex and Mexoryl, which are not available in the U.S., especially when choosing a sunscreen for children.

Aside from the premature aging effects, wearing sunscreen is especially important because incidents of melanoma and other skin-related cancers have doubled in the last 25 years.

"The best time to put sunscreen on is 30 minutes before going outside and to apply it generously, even on cloudy overcast days," said TSgt Francis. "Overcast weather still requires sunscreen in summer because 80 percent of ultra-violet radiation is still present on cloudy days. Most people who use an SPF 15 get the protection equivalent to an SPF 5 because they put it on too thinly."

Even though a person puts on sunscreen once, he or she should remember it's important to re-apply often. TSgt Francis recommends re-applying at least every two hours and after swimming or sweating.

"When you apply sunscreen use four times what you think you need. Don't forget the ears, back of the neck and any bald spot not covered with a hat. Protect lips with lip sun block."

So what is the best SPF to use? According to TSgt Francis, for the best results and protection, an SPF 30 is the minimum to use.

"While a higher SPF number means more protection, the difference is small; SPF 15 blocks about 93 percent of UVB rays and SPF 50 blocks about 98 percent of UVB rays."

For more information on how to protect against skin cancer and the correct use of sunscreen, call the your local safety representative or HPTT.

Helpful hints from the Skin Cancer Foundation:

- ✔ Limit time in the sun, particularly from 10 a.m.-4 p.m.
- ✔ Budget brands are just as effective as the most expensive brands.
- ✔ Everyday use of sun lotions on the face and back of the hands limits the chances of developing dry leathery skin, wrinkles, molting and other signs of premature aging and skin cancer.
- ✔ The incidence of melanoma, the deadliest form of skin cancer is rising faster than that of any other cancer. There is now nearly 8,000 melanoma deaths every year.
- ✔ Examine your skin head-to-toe every month.
- ✔ See your physician every year for a professional skin exam.

General credits training, protective equipment to saving his life

By Kelly Widener
USACRC PAO
Ft Rucker, AL

Funny things go through a person's mind while sliding down an asphalt road.

While sliding 30 meters at about 35 mph, Brig. Gen. Doyle D. "Don" Broome Jr. said the thought that flashed through his mind as he fell off his motorcycle was, "Boy I wish I had invested in those leather chaps."

The unfortunate result of Broome's accident isn't that he wasn't wearing chaps, but that he became part of an increasing Army statistic by no fault of his own. Statistics show that about 60 percent of motorcycle accidents in the Army involve Soldiers who are 26 and older and are E-5s and above.

The accident of the deputy commanding general of U.S. Army Cadet Command was one of many recorded motorcycle accidents during fiscal 2006—a year in which the Army experienced a 20 percent increase in motorcycle accident fatalities, despite a 13 percent overall reduction in privately owned vehicle fatalities. Additionally, about 15 percent of Army motorcycle fatalities in fiscal 2006 were not the fault of the rider.

> **"Funny things go through a person's mind while sliding down an asphalt road...'Boy I wish I had invested in those leather chaps.'"**

To provide motorcyclists the best chances of surviving an accident in terms of equipment and training, the Army mandates wear of personal protective equipment and attendance of a motorcycle safety rider education and training course, said Lt. Col. Laura Loftus, U.S. Army Combat Readiness Center driving task force chief. This is a good requirement considering about 37 percent of riders are more likely to survive an accident if they wear a helmet, according to the National Highway Traffic Safety Administration.

The fortunate result of Broome's accident is obvious—he survived it. But he survived because he managed and controlled every aspect of personal safety he could. Investigators credit his preparedness to saving his life.

He said he is not only thankful to be alive after the accident, but he is positive the training and personal protective equipment he was wearing that day gave him another chance to buy those leather chaps he now wears during each motorcycle ride.

"Fortunately, I was wearing all my PPE," Broome said in reference to the full-face helmet, leather gloves, long-sleeved shirt, leather jacket, ballistic eye protection, heavy jeans and steel-toed riding boots he was wearing the day a car passed him and then cut him off to make a right turn.

"He did one of those snap lane changes people like to do now, when they think they're NASCAR drivers," Broome explained. "He snapped right over in front of me, and the only thing I could do was grab the front handbrake. It was either that or run into the back of his car because he made an immediate turn right in front of me."

As soon as he stopped sliding, the general said he was up and moving out of traffic to ensure he didn't get hit by following traffic. The asphalt and friction burned through the knuckles of his leather gloves and the left forearm of his long-sleeved shirt and leather jacket. He suffered second- and third-degree burns on the arm as well as a softball-size area on his left knee. Something had also cut through the leather down to the steel cap of the toe on his left boot.

"Lessons learned are that: one, no matter what your rank or riding experience level—you can be put into a bad situation; and two, your personal protective gear saves your life," Broome said. "Even though I got buggered up in this thing, if I hadn't been wearing my PPE, the outcome would've been eminently worse. Your PPE 'pre-ride checklist' should include: full-fingered gloves, leather or ballistic jacket, ballistic eyewear, chaps, over-the-ankle riding boots and a high-quality DOT certified helmet *(Editor's note: See the new Air Force European requirement on the next page)*. As a friend of mine says, 'If you've got a ten-dollar head, then you should wear a ten-dollar helmet.' The only thing I have done differently since then is that I went out and bought those leather chaps, and I wear them even in the summer when I ride."

In addition to wearing PPE, Broome said he cred-

its his training to saving his life. Though he started riding motorcycles when he was 14 years old, he has taken the Motorcycle Safety Foundation Course twice.

"Even though I wound up laying it down, the training is invaluable. Situational awareness is critical, and I am even more aware now of cars driving around me than I was before," Broome said. "I ride now with the belief that drivers aren't going to see me or they are going to do something stupid to put me in a position I don't want to be in. It is a high-threat environment, and you have got to have your head on a swivel and be constantly aware."

The roadways are full of automobile drivers who are not looking for motorcyclists or are not aware of riders around them, he said. There are cell phone users who are distracted, elderly drivers who don't have the situational awareness they once did, or there are the NASCAR 'wannabees.'

"I try to ensure I have reaction space and time from all of them," Broome said.

Looking to help those under his command, the general requested—and his commander has appointed him—as the senior mentor for all Cadet Command cadre as well as all the cadets in Army ROTC programs around the nation.

This comes at a good time, when the Army is advocating its new Motorcycle Mentorship Program, which engages leaders in helping to establish programs where experienced riders can mentor inexperienced riders. The focused effort came following the loss of 40 Soldiers to motorcycle accidents during fiscal 2005, a dramatic increase from the 22 Soldiers lost in fiscal 2004. The loss of 48 Soldiers to motorcycle accidents during fiscal 2006 places an even greater emphasis on the MMP, Loftus said.

Photo by Kelly Widener

Pictured next to his Harley Davidson 2003 Super Glide, Brig. Gen. Doyle D. "Don" Broome Jr., deputy commanding general of U.S. Army Cadet Command, attributes personal protective equipment and training to saving his life during a motorcycle accident.

Loftus and Broome agreed that there is a lot of value in the MMP because riders with limited or no experience need somewhere to go for advice.

By the same token, the riders who do have experience need to do what Soldiers have always done - take charge and take young Soldiers under their wings. Tell them what they are doing wrong, and make on-the-spot corrections, the general explained.

"Otherwise, we are going to continue to lose Soldiers to motorcycle accidents," Broome said. "I have to tell you that is a terrible waste and one that we simply cannot afford."

Remember your helmet!

By Louella J. Anderson
HQ USAFE/A1SPC
Sembach AB, GE

Summer is in the air and children are out to play in the beautiful European landscapes filled with natural plants and flowers that leave most of us in awe. Children are out on their rollerblades, bicycles and even find themselves on the back of their parents' bicycles and motorbikes. Oh, what fun it is to ride—unless we forget to ensure they have that most important piece of equipment—their helmet!

Medical research shows that a bicycle helmet can prevent 85 percent of head injuries for cyclists. Statistics show that 600 or more bicycle riders are killed in the United States every year. The most common collision is with cars. Of the 600 deaths, 75 percent are from head injuries and 85 percent of those who die "are not wearing helmets."

Bicycle helmets are a bargain when we compare their cost to the loss of life and the possibility of permanent injury to our children. As most parents know, many helmets are sold with three sets of foam fitting pads that can be switched out as a child's head grows and also cuts the cost of frequent replacements. Remember, however, that helmets should be replaced if your child crashes in it, because helmets are less protective once crashed.

Some parents ask whether toddlers on tricycles and other riding toys should wear helmets. The answer is yes, but only if the toddler's neck can support the weight of a helmet. Otherwise, keep toddlers on small riding toys on grassy areas. If the child's neck cannot support a helmet, the prevention community recommends parents refrain from riding with a child under one year of age on the back of their bikes.

The US Consumer Product Safety Commission (CPSC) established standards for helmets in the United States. Outside the U.S. parents should be careful to look for a standards sticker that is recognized like the Comité Européen de Normalisation (CEN) standards in Europe. In any case, it is the parents' responsibility to ensure the child's helmet fits properly and securely; meaning the helmet should sit level on the child's head and the strap must always remain fastened.

For older children, helmets should be worn while inline skating and other skating activities. The American Society for Testing and Materials (ASTM) standard is the same for biking and inline skating. Trick and skateboard helmets have different standards, however, and parents should look for the CPSC sticker inside.

One last note is that helmets should not be used on playgrounds. Children should be reminded to remove their helmets before using playground equipment or climbing trees or other objects, because straps can become choking hazards if caught on equipment.

Photo courtesy of the AAA Foundation for Traffic Safety

USAFE SERVICES
Combat Support & Community Service

School Bus Safety Tip #6

Do your children know what to do, WHEN...

The bus does not arrive at the stop?

How long do they wait? Five minutes? Ten minutes?
If the bus doesn't come, where do they go?

- ❑ Back home? Will you be there?
- ❑ To an adult neighbor? Have you made arrangements?

Where to get help?

Known as a **SAFE HAVEN**, it's a place with adults that your children can go for emergency help, protection or shelter. For example, when a sudden illness or injury happens either to them or others, or to escape from bad people—both adults and other children, etc. Safe Havens must be arranged ahead of time.

Important:

If your child has a cell telephone, have you programmed it with your contact numbers so that it's a one-button call?

Have you instructed your children when they are to call you?

Remember: Cell telephones must be turned off upon reaching school grounds.

Photo by Ted Chase

Pre•par•ed•ness (prĭ-par´ĭd-nĭs): A few minutes of planning can prevent hours of panic, trauma and grief for your children and you!

A SAFETY MESSAGE FROM DODDS-EUROPE LOGISTICS DIVISION IN COOPERATION WITH THE USAFE SAFETY DIRECTORATE

AFSO21 & weapons safety:

A success story

By MSgt Travis Wetzler
39ABW/SE
Incirlik, TU

What do weapons safety and AFSO21 have in common? They are two different programs with two different objectives and two different processes. The answer is: combining the differences has created a win-win outcome. The cardinal rule of explosive operations is to expose the minimum amount of explosives to the minimum amount of people for the minimum amount of time. Air Force Smart Operations for the 21st Century (AFSO21) is the Air Force's dedicated effort to maximize value and minimize waste in all of our processes. In combining these concepts, members of Incirlik's 39th Security Forces Squadron incorporated reliable weapons safety practices in an armory re-design that ultimately saves valuable time and resources.

Photo by MSgt Travis Wetzler

Loading dock 39 SFS installed to allow munitions pre-tied down on carts to be rolled onto response vehicles.

The reduced time and effort spent moving munitions and weapons from the depths of the armory to the arming windows are an exceptional move toward meeting the cardinal rule. That, tied with the streamlined storage practices of fragment producing munitions and improved response munitions handling procedures, leaves you an AFSO21 plan that will pay dividends for years to come.

TSgts Randy Slater and Charlotte Wetzler, SSgts Gary Chapin and Jesse Head and A1C Nichelle Ingram, all from the 39th SFS, answered the call to action and initiated the recent security forces Armory AFSO21 initiative. These Airman took a concept of reducing time spent moving from point A to point B in the armory and successfully applied time-motion principles to the concept. The initiative ultimately reduced arming time for security forces personnel by as much as 20 minutes per shift change.

Photo by MSgt Travis Wetzler

A1C Nichelle Ingram from 39 SFS Armory demonstrating weapons issue procedures during AFSO21 brief.

The savings of this effort alone paid large dividends when you consider most security forces personnel spend between 13 and 15 hours on the job. Their duty day starts before they arm and continues to the time they leave at shift's end, usually well after they turn in their weapons. The part of this effort that deserves mention and acknowledgement is how these Airmen not only reduced their arming time, but measurably increased their munitions storage capability, improved munitions and equipment accountability and most importantly, solidified the safety of personnel and mission critical assets.

The armory personnel packaged response munitions in mobile configurations that went beyond mission needs by exceeding storage and transportation safety requirements through innovation and smart thinking. They regrouped and accounted for muni-

tions based on arming requirements for individual and mass response actions; they sourced ramps and equipment to safely move, load and tie-down the ammunition during quick response scenarios; and they pre-staged individual Personal Protective Equipment, Squadron Operating Instructions, required tie-downs and vehicle safety equipment in a way that ensured required items were readily available to guarantee mission success. The initiation of these methods put the armory personnel in a position to be on-point and ready to provide response support before it was required on-scene.

Photo by MSgt Travis Wetzler

This is the front of the re-designed 39 SFS Armory near the arming windows.

Another notable initiative was the movement of the weapons cleaning and maintenance areas from inside the main armory's munitions storage location. This action significantly reduced explosive exposure to to personnel by positioning an originally engineered blast wall between personnel cleaning weapons and the fragmentation hazards of the storage areas.

Photo by MSgt Travis Wetzler

39 SFS Armory personnel receiving weapons.

Additionally, assets were realigned in a way that increased munitions storage capability by 30 percent. This realignment maximized available storage space while reducing the maximum credible event of a mishap with hazard class 1.2 munitions. They secured proper storage containers for high explosive munitions that allowed personnel to issue assets quickly while meeting Interim Hazard Classification requirements for storage.

The transformation from an original wood crate storage over-pack to an operational quantity in a deployable container is something the entire security forces and weapons safety community works to improve every day. The top-off point for the storage realignment was the elimination of a critical departure from storage safety rules at one of the alternate armories. These innovative efforts ensured EUCOM and NATO arming requirements were met while eliminating explosive exposures to personnel not related to the security forces mission.

The 39th SFS Defender's accomplished this commendable task without deviation from safety rules and principles. The implementation of this AFSO21 initiative proves how we can, and will, continue to reduce manpower commitments while improving the safety of operations. The writing was on the wall when it was all said and done. Not only did it improve the mission, it flew through a Surety Inspection.

What's your unit's success story?

We want to know the scoop!

Our new feature highlights a unit that stands out in the crowd.
What has your unit accomplished?
To protect each other
To protect your resources

We want to hear from you!

Send your story to: usafe.sez@ramstein.af.mil

By Lt Col Sean DeWitt
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Aviano AB, IT

At Aviano, we experience approximately one major motor vehicle accident (MMVA) every other day. Here are some eye-opening statistics: since 1995, MMVAs have resulted in an average of three motor vehicle-related fatalities or permanent disabilities each year; three of every 15 people at Aviano will experience a motor vehicle accident while stationed here; Americans cause 75 percent of the MMVAs involving Aviano personnel due to speeding and/or inattention or failure to yield; motor vehicle accidents are the #1 threat to life at Aviano.

Have I got your attention?

While statistics help us focus mishap prevention efforts, this article is not about the numbers. It is about being responsible guests in our local community and Italy. It is about saving lives and preventing injuries, or in other words, protecting our most valuable resource—you—in order to accomplish the mission. We must all understand the costs of unsafe driving and take individual responsibility to eliminate unsafe driving behaviors in order to reduce the rate of motor vehicle accidents.

Unsafe driving puts you and others at risk. This is no different than driving under the influence—individuals do not have the right to put others lives at risk. Loss of life is the greatest cost, as we tragically experienced last summer and earlier this year. It affects the entire community. All motor vehicle accidents include the potential for disabling injuries, criminal prosecution, lost duty time, and increased stress on those involved. Perhaps one of the biggest indirect costs would be living the rest of your life with the fact that you caused the death or disability of another. These indirect costs are an unacceptable price to pay and also limit a unit's ability to accomplish the mission. In order to understand some of the direct costs, let's look at insurance effects and a hypothetical case.

For insurance companies, driving history is the greatest determinant in insurance premium cost. If you are cited for speeding, you can expect your insurance rates to increase by 20 percent. If you are found "at-fault" in an accident, industry averages support a 40 percent increase in insurance costs. If you are cited for DUI, most insurance companies will drop your coverage and if you can find insurance following a DUI, you can expect to pay 200 percent over you current insurance rates. The bottom line: affordable insurance depends on a safe driving record.

A hypothetical case will help us understand additional costs. This case assumes a SrA with a line number to SSgt, married, with a six-month-old child. The SrA is found "at fault" in an accident while driving under the influence and sustained injuries which resulted in paralysis from the waist down. A Line of Duty (LOD) determination was made and the member was found "Not in the LOD" due to misconduct. An Article 15 punishment for the DUI results in reduction of rank to A1C resulting in the loss of $442 per month and forfeiture of additional pay as determined by the commander. Due to the disability, the member can not serve on active duty and is separated from the Air Force. The member

is not eligible for medical retirement and loses $840 per month in medical retirement pay. The member and his family lose all military benefits to include medical care, prescription benefits, education expenses, commissary, BX, etc. The family would be forced to rely on VA benefits for medical care and other sources of income such as social security and public assistance. Depending on the characterization of the discharge, VA benefits could also be jeopardized and the government could pursue repayment of medical expenses. Averaged over a lifetime, the cost is astronomical. The point is clear: the cost is too high.

As we enter the summer months, many of us will take the opportunity to travel. This is a great way to spend time with family and friends while getting away to reduce stress. Several simple steps—prepare, plan, piano (slow down)—can keep your trips stress-free and allow you and your family to return safely. Preparation covers the spectrum of long term advance actions and continues to the final steps that help you build a plan that controls risk.

Begin with a thorough mechanical check-up on your vehicle to include proper tire tread/pressure, fluids (oil, transmission, coolant, windshield washer, etc.) lights, windshield wiper blades and required safety equipment.

If you're a motorcycle rider and stored your ride for the winter, dust it off, conduct post-storage maintenance and make sure you have all required PPE, to include an ECE-approved helmet. *(See page xx for more information on the new helmet requirements.)*

Then follow-up with the required paperwork for both cars and motorcycles. In addition to the paperwork, check expiration dates on passports and consider purchasing a road-side assistance package. There are many automobile clubs which provide 24/7/365 emergency assistance throughout EU countries for less than € 9 per month. Lastly, estimate your fuel requirements and purchase the coupons. Much of the paperwork can't be done at the last minute and if everything is updated you will have taken a large step towards controlling risk in the event your trip doesn't go as planned.

Now that you know where you're going, you need to address the risks associated with the trip. Put your trip through an ORM-checklist, i.e., check your route, weather and other variables that can arise to ruin your hard earned "R&R"; plan fuel, food and rest stops, and consider a driver change to avoid driving while fatigued (driving while fatigued can have the same effect as driving while intoxicated). Great idea but what tools are available? A list of useful websites is included (see box). The information available through these resources will cover almost any trip in Europe.

This ORM assessment is your contingency planning time as well. Ask the "What if?" questions. What if my car breaks down? What if the weather or traffic is not as expected? What if we depart later than expected? Then resolve those questions with contingency plans. Having plans in place will give you peace of mind and equip you to safely handle the unexpected.

Travel websites

ViaMichelin provides excellent trip routing information along with weather forecasts and traffic information. Look under the "Tourism" and "Motoring" menus for links:
http://www.viamichelin.com/viamichelin/gbr/tpl/hme/MaHomePage.htm
Accuweather—General European travel weather with other useful travel links:
http://wwwa.accuweather.com/world-index.asp?partner=traffic&traveler=0
WorldWorx—Excellent for general travel information including safety, security, road conditions, medical facilities, and crime statistics:
http://www.worldworx.tv/safety/europe/
AFN's site contains links for current road conditions in Germany, particularly around US Army installations:
http://www.afneurope.net/wuerzburg//Article.asp?id=40533
Autostrada traffic conditions:
http://www.autostrade.it/

Shortly before departure consider stocking your vehicle with additional items such as a first aid kit, water, energy bars, and additional clothing (especially if traveling in cold weather).

Finally, your supervisor should know your plans, but also inform a friend or neighbor. As a minimum, they should know when you're leaving, where you're going, how you're getting there, when you plan to return and how to contact you during your trip. Then set out and enjoy.

There is one simple rule during your trip—piano! That means physically following the speed limits and adjusting your speed to driving conditions. Mentally, it means take it easy, be patient and don't rush. Take your time, not your life.

While awareness, preparation and planning will help reduce the rate of motor vehicle accidents, we will not defeat this threat to life through these means alone. This threat affects us all. We must make the individual choice to drive safely and responsibly while holding each other accountable to do the same. When this occurs we will be responsible guests in the local community, reduce MMVAs, and preserve our people to accomplish the mission.

The most important airplane in history?

P-51 Mustang

By Dr Marshall L. Michel
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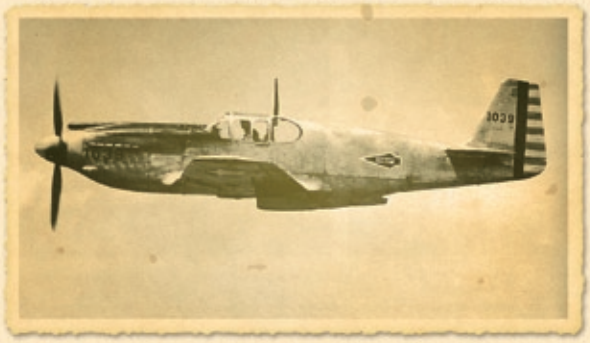
There are perhaps only two aircraft that might be proposed as the most important aircraft in history, but one of them is certainly the P-51 Mustang, the Eighth Air Force fighter that won the air war over Europe and made the June 1944 D-Day landings and the ultimate victory in Western Europe possible. The P-51 arrived just in the nick of time. General Hap Arnold said of that fact, after the war "…we could have had the long range P-51 in Europe rather sooner than we did. That we did not have it sooner was the Air Force's own fault."

Indeed, the story of the P-51's ultimate arrival at Eighth Air Force is a convoluted one. In 1940, even before the Battle of Britain, the British wanted badly to buy American fighters for the Royal Air Force. The RAF originally wanted the Curtiss P-40, but the North American aviation company said they could build a better aircraft. The British said they would be interested if the aircraft could be built in 120 days. North American completed the first NA-73, the ancestor of the P-51, in April 1940, about 100 days from when it was ordered. The NA-73 was an exceptionally clean design and included a low drag, laminar flow wing, which gave it exceptional range and acceleration, and it was vastly superior to the P-40. The aircraft was named the Mustang by the British and the first ones arrived in the UK in November 1941, just before Pearl Harbor. The RAF quickly proclaimed it by far the best US fighter they had received, the sole problem being that the Mustang's performance dropped off above 15,000 feet because of its Allison engine.

At the same time the Mustang was sold to the RAF, the US Army Air Corps ordered two for testing and named it the P-51. When the attack on Pearl Harbor occurred, the Air Corps began to rapidly expand and ordered the P-51 in quantity, but the Air Corps planned to leave the high altitude fighter work to two other new aircraft coming into the inventory, the twin-engine P-38 Lightning and the huge P-47 Thunderbolt. The P-51, with the limitations of its Allison engine, was intended to be a low altitude reconnaissance fighter. A dive bomber version was also ordered—renamed the A-36 Apache.

This decision to keep the P-51 as a low altitude fighter would have carried the day except that the RAF was so enamored with the Mustang's performance that it proposed reengining the fighter with an efficient high-altitude engine, the Rolls Royce Merlin that powered the Spitfire, and asked North American to perform the change. After some structural changes, notably modifying the radiator under the center of the fuselage, the new fighter, called the Mustang II by the RAF and the P-51B by the US, was completed at the end of December 1942. The reengined fighter's performance, especially at high altitude, was spectacular and in January 1943 the Army Air Force ordered 2,000 of the P-51Bs. Despite its high altitude performance, the Air Force planned on using them mainly for ground attack and tactical reconnaissance—the service was still committed to the P-47 and P-38 as its primary air-to-air fighters. There was some delay in the delivery of the Merlin engines, but by August 1943 the first P-51Bs began to arrive in England and were assigned to Ninth Air Force.

Meanwhile, Eighth Air Force was having unexpected difficulties trying to fly unescorted bomber missions into Germany. Before the war the Air Corps believed that its heavily armed B-17s and B-24s could fly unescorted deep into Germany, but the Luftwaffe hit the unescorted bomber formations hard with "heavy" single and twin-engine fighters armed with a variety of large cannon and rockets, and shot the pre-war theory of unescorted bombers to pieces. Eighth Air Force tried to use its



USAF photo

An early P-51A being tested by the Army Air Corps. The scoop at the top of the cowling provided cooling for the low-altitude Allison engine.

P-38s and P-47s to escort the bombers, but both had severe limitations in this role. While both were heavily armed and could easily destroy the "heavy" fighters, they had great difficulty with the normal, highly maneuverable single engine German fighters. The P-38 lacked acceleration and maneuverability, had a very inefficient cockpit heater for the pilot in the freezing high altitudes, and had compressibility problems that severely limited its diving speed. The P-47 was a slow climber and also lacked acceleration, and both were beset by numerous small but critical maintenance problems.

But the most serious problem with the two fighters was short range. Both had been intended as bomber interceptors because the Air Force did not expect to need fighters to escort the bombers. The P-38 could carry two large extra fuel tanks, but they were not pressurized and could not be used above 20,000 feet, well below the bombers' altitude, and even with the external tanks its combat radius was less than 500 miles. The P-47 was even worse. It did not have any provision for external fuel tanks, so it took time to install the plumbing for even a single belly tank, and even with the tank the

P-47s combat radius was only 400 miles. As a desperate measure, some B-17s and B-24s were loaded with guns instead of bombs to act as a "fighter escort," but this was unsuccessful.

The Luftwaffe quickly realized the range limitations of the American fighters, and the Germans simply kept most of its heavy fighters back and used them to hammer the bomber formations when the US fighters had to return to base because of fuel. The situation steadily worsened until, in October 1943, Eighth Air Force flew four major unescorted bomber missions deep into Germany in seven days, including a disastrous raid on Schweinfurt. During these four missions the command lost 148 bombers (and the 1480 crewman on board), as well as large numbers of bombers heavily damaged. For the rest of 1943, Eight Air Force bombers avoided unescorted missions and thus did not strike the most important German targets. The Luftwaffe seemed to have won the day air battle of Europe.

Fortunately, the first P-51Bs had arrived but were assigned to Ninth Air Force for ground attack. Then General Hap Arnold, faced with the huge bomber losses, directed that the P-51s be detached from Ninth Air Force and used exclusively to escort bombers, something that had been exclusively the role of Eight Air Force Fighter Command until that time. Several pilots from Eighth Air Force came to fly with the Ninth Air Force P-51 squadrons, and the pilots came away mesmerized by the P-51's performance. Since one of the Mustang's original roles had been long rang tactical reconnaissance, it had all the plumbing for two wing fuel tanks of over 100 gallons each, as well as additional fuel in a new fuel tank behind the cockpit. The P-51Bs that arrived in England thus could carry about 400 gallons of fuel, almost as much as the much larger P-47, but the P-51B got 3.3 miles per gallon while the P-47 (and P-38) got less than 1.8 mpg. This low rate of fuel consumption gave the P-51 a phenomenal combat radius of well over 700 miles, far enough to reach any target the bombers could. Additionally, the P-51Bs had performance advantages over all German fighters. Additionally, the P-51 was 30-70 miles per hour faster than any German piston engine fighter and had better acceleration, and its maneuverability and climb rate matched or exceeded any German piston engine fighter.

The first bomber escort missions by the Ninth's P-51Bs were encouraging and, by January 1994, all P-51s coming to Europe were assigned to Eighth Air Force Fighter Command. That month the Eighth received its first P-51 Group, the 357th, and later that month the 4th Fighter Group, destined to be the highest scoring group in the theater, received its P-51s.

The arrival of the P-51 was the beginning of the end for the German fighter force and, ultimately, the Luftwaffe. Beginning in January 1944, German fighter losses were typically at least 10 percent of the fighters they sent up on a given day, and sometimes the losses rose as high as 40 percent. From January and April 1944 the Germans lost more than 1,000 fighter pilots, and ominously, the losses began to include several aces with over 100 kills.

By March, P-51s were escorting the bombers all the way to Berlin, and the Mustang's long range served another purpose. P-47s and P-38s escorted the bombers the first part of the way to the target then, when the P-51s arrived to take over the deep escort, the P-38s and P-47s dropped down and attacked German fighters as they took off and landed, then strafed German fighter airfields. Now the Luftwaffe was under attack from taxi out to landing roll, and its losses soared. By June 1944, when the invasion of Normandy took place, the German fighter force had been for practical purposes destroyed.

USAF photo

A flight of four Eighth Air Force p-51s over Germany in late 1944. Closest to the camera is an early P-51B with four .50 guns, then two P-51Ds, and a "Malcolm hood" late model P-51B.

But the P-51s that ranged over the German skies were not perfect. The extra internal fuel tanks made it very unstable until the fuel was burned off early in the mission. German pilots considered the P-51 vulnerable to cannon fire, and there were occasional cases of structural failure, both a sharp contrast to the very tough P-47. The early P-51Bs had a "razor back" behind their canopy that cut down on their rearward visibility, and its relatively light armament of four .50 machine guns (the P-47 carried eight) tended to jam in a turn. But by early summer the P-51Bs were being replaced by P-51Ds with modified gun mounts that reduced the jamming problem and a "bubble" canopy that eliminated the blind spot in the rear, though the elimination of the razor back made the D model much less stable laterally and not as good a gun platform as the B. Indeed, the most popular P-51 model was the late model P-51B with "D" type gun mounts and a British designed bubble canopy hood called the "Malcolm hood," and many aces and flight leaders kept their late model Bs for as long as they could, often until 1945.

Why was the P-51 the most important aircraft in history? Because without the P-51 the Eighth Air Force would not have been able to sweep the Luftwaffe from the skies in the first five months of 1944. If the Luftwaffe had been able to husband its resources, especially its pilots, it would certainly have been able to mount much more energetic attacks on D-Day, and could have delayed the invasion of Germany from the west for a considerable time. This could have given the Germans more time to develop and deploy their jet fighters and bombers, or the delay could have resulted in the Soviets sweeping across Germany while the Allies were delayed in the west. Either counterfactual offers unappetizing prospects, but neither came to past, because, in the few months of 1944, the P-51s were able to lead the destruction of the German fighter force. Herman Goering, the commander of the Luftwaffe, perhaps put it best when he said, "When I saw the first American fighters over Berlin, I knew the war was lost." And the fighters he saw were Eighth Air Force P-51s.

IN MY OPINION

It seemed like a good idea at the time

By Lt Col Mark Murphy
354 MXS/CC
Eielson AFB, AK

Jeff Foxworthy has nothing on my family. No kidding—this really happened.

I grew up in an old farmhouse. My older brother Joey and I lived upstairs, where the only source of electricity was a bare bulb hanging in the center of the room, to which we ran a spider web of extension cords.

Dad's an electrical engineer, so he decided to bring the upper half of the house into the 20th century by wiring it for electricity.

The only problem Dad had was that he needed to find a path to run wiring from the basement up to the second floor. After deciding that my bedroom wall ran from the attic to the basement, he hatched a plan to shoot a rifle down the inside of the wall in order to find a place to run the wiring up from the basement.

Now, before you pass judgment, I need to point out that Dad wasn't stupid. He waited until Mom left the house for a few hours before implementing his plan.

When the day came, he sent Joey up into the attic with a flashlight, a radio, double ear protection and the same .22-caliber rifle he'd taken away earlier for accidentally shooting it in the house.

The attic was tight, dark and dusty; Joey had to hunch over precariously on the rafters, flashlight in one hand and rifle in the other, trying to shoot an invisible target through a gap four inches wide and several feet long. Dad and I took the other radio into the basement to watch for the bullet.

That's right. Our plan was to stand at the other end of the basement and watch for the bullet when it came out. Dad said it was OK because the basement had a dirt floor.

Dad keyed the radio and told Joey to fire. We heard a soft "pap" from far above us, but didn't see anything. We searched the ceiling for holes, but found none. Dad wasn't deterred. He concluded that the .22 obviously didn't have enough power to drill through the house's heavy wood construction.

However, repeated attempts with a .357 and a .44 Magnum didn't work, either. All it did was make a lot more noise. Dad was perplexed, but determined. He grabbed a .308 Winchester rifle and sent Joey up the ladder again. We knew that rifle would punch through railroad ties, and Dad was confident that it would be the trump card to rewire the house.

Down in the basement, I stood behind Dad and put my fingers in my ears as he keyed the radio. The results were cataclysmic. "KAWHOOM!" roared the rifle, and the house shook to its foundations. The roar was immediately followed by the sounds of mass wreckage upstairs—things falling, crashing, clattering and banging.

Dad and I ran up the two flights of stairs. Joey was fine, but my bedroom wall had a two-foot long, foot-wide tear-drop-shaped hole where the muzzle blast had blown all the plaster away from the wall's wooden structure. The dusty room smelled of gun smoke and plaster, and was covered in chunks of wall and the remains of everything that used to sit on the shelves that once hung on the wall.

Joey was coughing, and we wondered how Dad was going to explain this to mom. Dad was debating what to do next, because the most powerful rifle we owned still hadn't penetrated through to the basement.

That's when I noticed something I hadn't seen before. I interrupted to say, "Dad, I don't think this wall goes to the basement."

Dad stopped in mid-sentence and looked at me, a little perturbed at the challenge to his engineering.

"Of course it does," he said dismissively, "It's the only wall here, and it runs behind the couch downstairs." He went back to his conversation.

"No, really," I persisted. "Look. Here's my bedroom wall, here's the hall, and here's the stairway wall. The bedroom wall doesn't run behind the couch - the stairway wall does. The two walls are offset by about three feet."

Dad glanced at the walls for a moment to decide how to get me to drop the issue, and a couple seconds later his face went completely white.

> **"I need to point out that Dad wasn't stupid. He waited until Mom left the house..."**

The wall we were shooting through ended above the living room, not the basement. We raced downstairs to the living room in a panic. We all knew Mom might abide structural damage, but if her floral print couch was shredded by small arms fire there'd be hell to pay.

Thankfully, the fates were kind to us that day. For whatever reason, none of the shots made it through the bottom of the wall. By some wild stroke of luck both the ceiling and the couch were intact.

At that point, Dad decided to run the wiring up along a wall inside a closet, where he could easily drill a hole through to the basement. But the three of us formed a deeper bond on the day we shot the house.

I learned a lot more than just ballistics that day. I learned a lot of things about safety that I've seen proven true again and again.

How did this disaster happen? It began with somebody who got so locked into his own solution to a problem that he ignored warning signs to consider another path. It was perpetuated by two people who blindly deferred to the idea man rather than think critically and help him find a better way. And finally, all three got a bad case of tunnel vision that was only cured when the youngest and least experienced of the team saw something nobody had noticed.

If you're a leader, you need to realize that rank can be a problem. People may keep good input to themselves because they don't want to interrupt your flow or think you won't listen to them. You've got to reach out to those working for you and ask them directly for opinions. They'll generally come up with something you might not have considered.

If you're a follower, you owe it to leaders to help steer the train away from disaster, rather than shoveling more coal into the engine. You'll pay the price of disaster, too, so you have the right to say something to avoid it. And no matter whether you lead or follow, you need to avoid tunnel vision like the plague. If you can't see disaster coming, you won't avoid it.

Bad ideas can be just as contagious as good ideas. Think things through and be sure of which one you're dealing with before you get on board.

Safety Around the Command

March 2007

5 An A-10 slat was damaged during flight.

20 An F-15E experienced gun damage during aerial training flight.

29 Fire damage occurred to an on-base housing unit due to electrical short in a DVD/TV combination set resulting in $100,000 property damage.

April 2007

1 A 21-year-old Airman traveling with two passengers lost control of his vehicle, drove thru a fence and collided with a tree; driver fractured his jaw losing 13 workdays including five days hospitalization, one passenger received minor injuries.

4 A 41-year-old TSgt was operating a forklift when the right side door slammed on his right thumb, partially severing the tip. Result: two lost workdays, including one day hospitalization.

20 A non-Air Force contractor drilled through a underground fuel hydrant pipe spilling 62K gallons of fuel resulting in $520,900 environmental cleanup cost.

21 A 21 year-old A1C hiking on unmarked path fell 101 feet to his death when the ground below gave way under his weight.

An F16CJ aircraft veered off the runway due to directional control problems.

27 A 35-year-old SrA fractured his arm in a motorcycle mishap when he collided with a vehicle that abruptly turned into his path resulting in three lost workdays.

30 An A10 engine ingested a foreign object causing damage.

Protect your children from heat stroke

Since 2002, more than 100 children died each year from heat stroke after being trapped in a vehicle's passenger compartment.

Research conducted by General Motors revealed that these children left behind in a closed, parked car by parents or caregivers, or they gained access to the car on their own and could not get out. This is a serious public health issue, and one that is entirely preventable.

Parents may mistakenly think that they can safely leave a child in a vehicle for a "quick" errand. Unfortunately, a delay of just a few minutes can lead to tragedy. Heat is much more dangerous to children than it is to adults. When left in a hot vehicle, a young child's core body temperature may increase three to five times faster than that of an adult. This could cause permanent injury or even death.

Kids in Cars (a nonprofit agency dedicated to the prevention of injuries and deaths due to children being left unattended in or around motor vehicles) and GM offer parents the following tips to help keep their children safe:

- Never leave a child or pet unattended in a motor vehicle. On a typically sunny, summer day, the temperature inside a vehicle can reach potentially deadly levels within minutes.
- Never leave a child unattended in a running vehicle.
- Watch children closely around cars, particularly when loading or unloading. Check to ensure that all children leave the vehicle when you reach your destination. Don't overlook sleeping infants.
- Always lock car doors and trunks when not in use—even at home—and keep keys out of children's reach.

Year	Incidents	Kids Involved	Fatalities
2006	252	312	51
2005	429	509	151
2004	443	560	120
2003	573	713	141
2002	430	587	116
2001	376	454	92

Source: Kids In Car national database

Have we learned? You decide

Part 2

By Maj Terrill Roberts
USAFE/SEW
Ramstein AB, GE

In November 1991, Capt Eugene Doremus, CENTAF/SEW and SMSgt Denny Mauldin, AFSA/SEWV wrote a report entitled "Desert Shield/Desert Storm Weapons Safety Lessons Learned". The real question is, did we learn anything or did we repeat the same errors? I am not going to attempt answer the question but simply provide excerpts from the report for you to decide. This is part two of the series. Part one can be found in our Spring 2007 issue. For this article, the names of the bases will not be used. We will look at several bases and discuss the situations created by the war and what was or was not accomplished.

Base A was a unit collocated with a host nation unit. The munitions support element was tasked with missiles, 20MM, chaff and flare. The entire munitions support element was housed in two bays of a four-bay hardened aircraft shelter, which required all munitions storage, operations, and administrative functions to be combined under one roof. One bay was filled with missile ALL-Up-Round containers and the other bay held personnel, missile build-up, 20 MM processing, offices and a break area. The situation was compounded by the unit's aircraft parking and loading location, which was immediately outside the bays.

Photo by Lt. Gary W. Butterworth

Rows of 155mm howitzer projectiles line a holding area at Ammo Supply Point 3 near Mishab. The ordnance is being stored in preparation for shipment back to the United States in the aftermath of Operation Desert Storm.

This unit had very little choice matter since the host nation refused them access to anything else. Since the wing deployed without their Weapons Safety NCO (WSNCO), an accurate risk assessment was never accomplished. The MAJCOM safety staff emphasized the need for a Weapons Safety Officer (WSO) at this location, but none was ever at this location throughout the war.

Base B hosted both Air Force and Army flying units. Army aircraft accounted for nearly 70 percent of the ramp space and a large portion of that space was allocated to Apache helicopters. USAF A-10s, well separated with K-11 Q-D between aircraft were also located at this base. The other large contingent was the AF Special Operations Command (AFSOC), with helicopters and C-130s in several variations.

This base had three WSNCOs assigned and they were able to properly site storage locations prior to munitions arriving at the base. At the time of the war, hazard class (HC) 1.1 munitions was defined, but AFSOC had HC 1.2 munitions. The WSNCOs were able to determine the correct safety distance and were leads on eventually defining the requirements for the AF.

Even with three WSNCOs, there were two explosives incidents at the location. The first involved the area with the Army location to stage Apache helicopters, with some loaded with Hellfire missiles. The missiles were pointed towards the TAC munitions storage area. A maintenance crew was performing a prophase aircraft ground inspection on a loaded Apache IAW a Standard Operating Procedure when the missile received an uncommanded launch signal. The missile traveled through two rows of parked Apaches, across an active taxiway and runway and landed in the middle of a storage pad sited for 257,700 pounds of C/D 1.1. There were 205,255 pounds on the pad at the time, mostly MK82 bombs.

The Hellfire traveled over the bomb stack, missed a row of fins and struck a stack of boosters and fuzes. Only the boosters and fuzes detonated,

and the fins were destroyed. The total damage was limited to $258,000 in munitions components and about $7,000 in damaged equipment. Investigators were not able to isolate the cause of the accident.

The second incident involved a USAFE technician, who was accustomed to working with training missiles. The technician used a training missile checklist to perform a check on the live AGM-65. The system functioned as designed and fired the missile, which slammed into the B-1 revetment and burned until the rocket motor fuel was expended. Due to great engineering systems, no one was hurt.

Base C was collocated with an air wing of the US Marine Corps. Originally a Wild Weasel base, the biggest problem initially was beddown of AGM-88 and AGM-45 missiles. However, when Marines arrived, they brought with them an air-to-ground mission with hard bombs. They also imported a combat philosophy they termed "carrier ops". This method of war fighting assumes minimum real estate with minimum combat munitions loads and minimum turnaround times. What this means is that they loaded their aircraft with full combat loads, folded the wings up so they could pack the maximum aircraft into the available ramp space (bomb–to-bomb separation between aircraft was six feet) and placed bombs at the edge of the ramp so they were immediately available. Carrier ops also meant combat loaded aircraft are towed into hangars for maintenance.

In fairness to the Marine Corps, there was originally only one location authorized for aircraft parking, and it was within 100 feet of aircraft maintenance facilities. However, USAF airplanes were also required to be parked in the same general location and were at serious risk. In the end, the base was given more space to park the planes.

Base D had low net explosive weight requirements driven by an air-to-air mission. Weapons safety problems were not much of an issue. In fact, the weapons safety NCO did not report to the theater MAJCOM until long after the deployment. The fact that this individual was the weapons safety representative for the wing was not immediately known to the wing leadership.

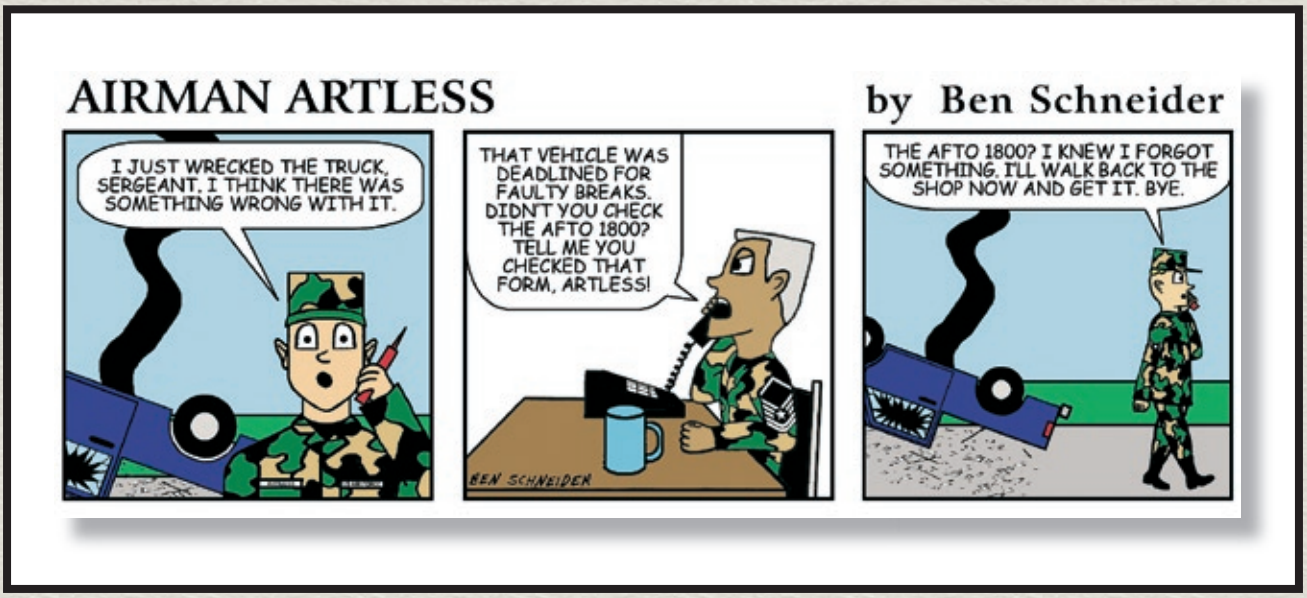
At the onset of the Gulf deployment, Air Force Inspection and Safety Center authorized the use of emergency to-ground mission on an extremely small training base. The base was so small that the entire base was in the clear zone.

Ramp space was at a premium and combat mission called for MK84 Bombs. With the number of aircraft and the bomb load, intermagazine separations were impossible. Grouping of aircraft at K18 separations was also futile, and barricading was not an option. New construction for this base was a low priority.

An interesting development occurred at this location. As was mentioned the entire base fell into the Q-D arcs, including tent city. The munitions contingent had a choice between living in tent city and occupying a barracks located at K12 from the munitions storage area. After consulting with the WSO and discussing the risks involved in both locations, they chose the barracks. They felt that if they had to be killed or maimed in an explosion, they would much rather do it to themselves. They sandbagged the structure and moved in. This decision was supported by the CENTAF Weapons Safety staff.

In the end, there were a few lessons learned, some we have adopted. One lesson learned was using metric maps and engineering scales. Our troops do not use metric in the States, so when deploying they were unfamiliar with the metric system and made several errors. The software tools used by WSMs today have the ability to convert from English system of measurement to metric.

Other lessons learned? You decide.



Maintaining the "Visual Edge" at Spangdahlem Air Base

By Maj Matt Albright
Aerospace Physiologist
Spangdalhem AB, GE

Almost every pilot has experienced some form of spatial disorientation (SD) due to a visual illusion during the approach and landing phases of a flight. This may cause nothing more than an unclean approach or a hard landing, but mishap data shows the consequence of continuing to fly an approach while experiencing SD can be fatal.

This landing phase of flight is the one of the most demanding due to the precision required and the increased workload, especially during instrument meteorological conditions (IMC) and at night. The last thing a pilot wants to deal with is some form of disorienting visual illusion that interferes with this critical phase of flight. There are a variety of visual illusions that create problems during approach and landing, and the airfield at Spangdahlem Air Base, Germany has some very real examples. Fortunately it is possible, through proper preparation and crosscheck, to prevent these visual illusions from causing problems.

Before we discuss Spangdahlem airfield-specific visual illusions, let's talk a little about the topic. Visual perception is the key element for developing and maintaining good situational awareness (SA) when flying and attempting to land an aircraft. Although the vestibular (inner ear), somatosensory (seat of the pants), and auditory systems are important and provide critical information, the eyes provide about 80 percent of the input required for orientation. Visual inputs are the strongest and will override the other three systems in most situations. Anything that distorts your visual perception can seriously degrade your ability to develop and/or maintain good SA when trying to land an aircraft. Since our sensory systems are not specialized for the three dimensional world of flying, there are many inherent weaknesses.

Of the seven main visual illusions taught to pilots regarding runway landings (runway width/length, runway slope, surrounding terrain, smooth/solid surfaces, black hole, haze, runway lighting) the Spangdahlem airfield environment has five. These five factors, separately or in combination, have led to numerous mishaps involving aircraft flying approaches into Spangdahlem airfield including accidents involving loss of aircraft and a pilot fatality. Let's look at these factors more in-depth.

F-16 landing at Spangdahlem AB, GE

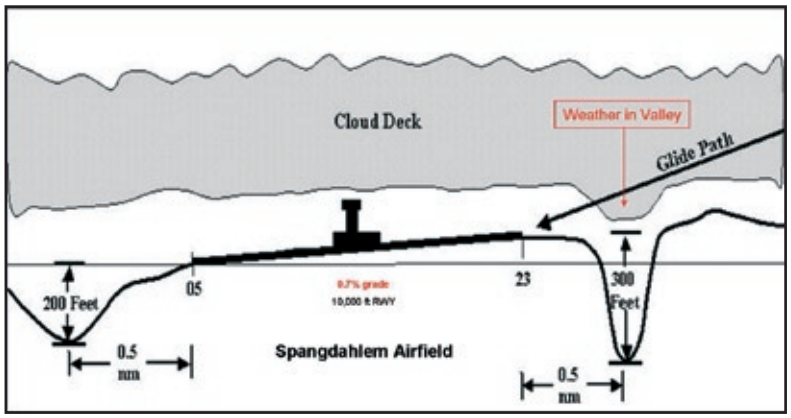
Factor #1: Runway Slope

Visual Illusion: An

up-sloping runway creates the illusion of being high on approach and the pilot can possibly fly the approach too low. A down-sloping runway has the opposite effect.

Spangdahlem Visual Illusion:

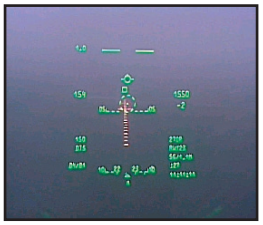
Runway 23—a .7 percent down-slope gives the illusion of being on a shallower glide path than desired. The natural pilot tendency is to increase altitude in an attempt to "make the picture look right". This results in being on a steep approach and possibly lead to an unstable approach or landing well down the runway.



Runway 05—a .7 percent up-slope gives the illusion of being on a steeper glide path than desired. The natural pilot tendency is to reduce altitude in an attempt to "make the picture look right". This results in being "dragged-in" possibly resulting in a hard landing or even landing short of the runway.

Factor #2: Surrounding Terrain

Visual Illusion: Variations in the surrounding terrain leading up to a runway can make a big difference in a pilot's SA on proper glide path and altitude. For example, usually small trees under the approach path make the pilot think the aircraft is too high, leading to a lower-than-normal approach; taller trees than the pilot is used to has the opposite effect.


Spangdahlem Airfield RWY 23 (IMC Approach)

Spangdahlem Visual Illusion:

Runway 23—the effect of surrounding terrain is two-fold. First, rising terrain on the approach end gives the illusion of being on a shallower glide path than desired. In combination with the above mentioned down-slope, this leads to an even greater tendency for a steep approach. On the other hand, when flying an approach in the weather to RWY 23, the deep valley prior to the runway creates conditions on final lower than the prevailing airfield conditions (called a "Valley Effect"). This lower elevation weather can affect a pilot's ability to have a proper sight picture of the airfield after initially breaking out and possibly cause them to fly a low approach to maintain sight of the airfield.

Runway 05—the large valley prior to the runway gives the illusion of being on a steeper glide path than desired. In combination with the aforementioned up-slope, this leads to an even greater tendency for a shallow approach. Another dangerous visual illusion takes place when a pilot transitions to RWY 05 after flying the majority of their most recent approaches to RWY 23 (majority of landings at Spangdahlem due to prevailing winds). When this situation takes place, the pilot is at risk of feeling comfortable with a "dragged-in" approach because the terrain prior to RWY 23 is higher than RWY 05 (this attention management disorder is called "Negative Transfer").

Factor #3: Black Hole Approach

Visual Illusion: A "Black Hole" approach is made on a dark night over water or unlighted terrain to a runway beyond which the horizon is indiscernible—worst case being when only the runway lights are visible. A hazardous approach could be one made under conditions where the earth is totally dark except for the runway and the lights of a city situated on rising terrain beyond the runway. Under these conditions, the pilot may try to maintain a constant vertical visual angle for the distant city lights, thus causing the aircraft to arc far below the intended approach slope, as it gets closer to the runway. Another way to think about Black Hole is that the pilot falsely perceives, through ambient vision, that the rising terrain is flat, which leads to a lower-than-normal approach.

Spangdahlem Visual Illusion:

Runway 23 & 05—lack of lighting surrounding the airfield creates a "Black Hole" approach visual illusion which, in combination with rising terrain, can lead to a dragged-in/low approach and possible controlled-flight into terrain/short landing.

Factor #4: Haze

Visual Illusion: Haze over the runway tends to give you the visual perception of being too high. It also affects the brightness of the runway lighting. This can lead to the possibility of flying the approach low.

Spangdahlem Visual Illusion:

The highly prevalent bad weather leading to IMC approaches into Spangdahlem airfield very often results in haze over the runway upon breaking out of the weather and many approaches flown to pilot weather category minimums. Upon visual acquisition of the

Hazy runway at Spangdahlem AB, GE.

runway environment from an instrument approach, when making the transition from instrument to visual references, pilots have the tendency to feel high resulting in a low approach and could possibly shift their aim point short of their proper aimpoint.

Factor #5: Runway Lighting

Visual Illusion: Runway lighting can give the pilot height and distance illusions. If bright enough, it will give the illusion that the runway is closer than it really is and the pilot will tend to fly a shallow approach. If lighting is dim, this may lead to an illusion that the runway is farther away and the pilot may fly too steep on approach. Uneven lighting can contribute to problems also. Brighter on one side than the other can give the illusion of bank (i.e. right side brighter, pilot will have the sensation of banking right).

Spangdahlem Visual Illusion:

Under certain conditions, the approach lighting can lead a pilot to fly an approach to an improper aim point (normally resulting in a dragged-in/low approach). First, because the airfield light intensity can be independently adjusted by the Tower (i.e. threshold vs. approach lights) and there is a variation in approach light color (green threshold lights vs. white approach lights), pilot's can misperceive the "1000 foot roll bar" (approximately coincident with the beginning of the under run) as the runway threshold. Second, sequenced flashing lights (usually the first lights seen after exiting the WX) run directly into the 1000' roll bar and stop there, enhancing the illusion of the 1000' roll bar as the threshold. If a pilot mistakes the 1000' roll bar to either runway as the runway threshold during the visual transition to landing and flies an approach to this point, there is an extremely high probability that the aircraft will impact an ILS antenna.

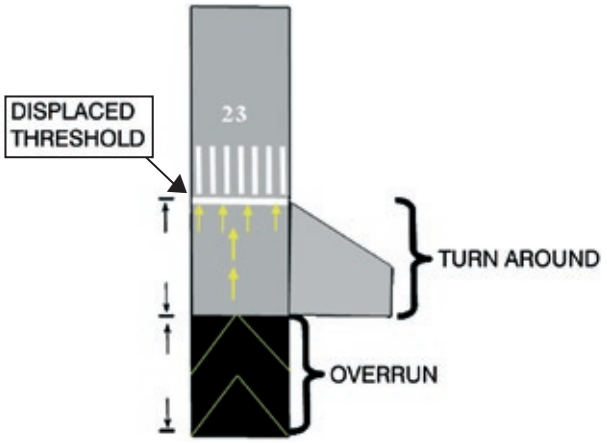
(Note: Sequenced flashing lights to both runways can give the false impression of flat terrain prior to the runway. In actuality, the sequenced flashers are mounted on poles. This misperception could lead a pilot to fly an improper approach.)

Additional Factor: Runway Surface

Spangdahlem Visual Illusion:

For the RWY 05 and 23 overrun, the first 500' is black asphalt, with the remaining 500' concrete. It is important to note that this bi-colored overrun makes it difficult to identify the runway threshold and has the potential to lead pilots into misidentifying a "false threshold" which results in approaches flown to an incorrect aim point. These approaches result in a dangerously shallow glide path and will lead to subsequent impact with obstructions in and around the overrun.

In order to combat these Spangdahlem-specific visual illusions, pilots must use all tools at their disposal to assist in arriving on a proper glide path for approach and landing. Prior to flight, a detailed mission briefing



covering these airfield-specific visual illusions and weather is key. During flight, pilots must diligently crosscheck aircraft instruments with visual references to avoid spatial disorientation problems. It is imperative that pilots DO NOT rely solely on the visual sight picture to set up a final approach.

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Hare raising

Photo by A1C Liliana Moreno

By SSgt Colleen Wieman
31 FW/PA
Aviano AB, IT

A fierce line of people loudly marched toward them. One by one, frightened earspopped out of the grass and the chase began.

Rabbits darted left and right as more than 200 people banged lids, blew whistles and kazoos and shouted during the flightline Rabbit Roundup March 22.

A total of 46 rabbits—27 males, 19 females and two babies—were chased into nets at the center of the flight line.

"[The Italian Wildlife Authority] came to move the rabbits to a safer environment and help us decrease the rabbits," said Capt. Chris Lehto, 31st Fighter Wing flight safety chief.

The Italian Wildlife Authority tagged the captured rabbits and took them to a better place in the mountains. The rabbits were tagged to monitor their migration in case they are caught on the flightline again next year.

SrA Josh McFall, 31st Maintenance Squadron PMEL technician, chased several rabbits towards the net. "I volunteered because it was something out of the ordinary and to get some fresh air," he said. "I thought it would be lame, but it's actually a lot of fun."

Volunteers weren't chasing scared rabbits just for fun, the rabbits needed to be corralled because they posed a safety threat.

"The rabbits pose a hazard to aircraft operations; we're worried about them getting ingested in the intake," Captain Lehto said.

The rabbits keep multiplying on the flightline, he added because the area is almost like a rabbit sanctuary.

"There are no natural predators," Capt Lehto said. "We keep out all the coyotes dogs and keep away most of the birds."

The Rabbit Roundup is held once a year. This year's was the most successful, beating the previous record of 27 rabbits caught.

Photo by A1C Liliana Moreno

Left: De Filippo Giuseppe, Italian wildlife authority, captures a rabbit during the "Rabbit round-up" at Aviano. The 31 FW safety office sponsors the round-up to help curb the population and decrease the potential for aircraft mishaps, because the animals have no natural predators on base. The rabbits are herded to a point on the airfield where they are caught and released back into the wild.

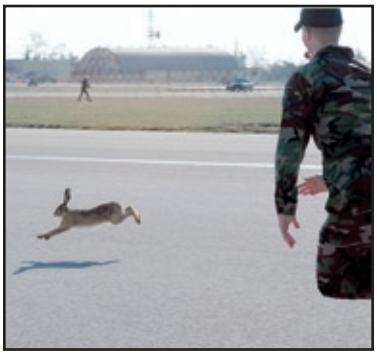


Photo by SSgt Colleen Wieman

Left: SrA Josh McFall, 31MXS PMEL technician, tries to prevent a rabbit from escaping during the roundup. SrA McFall decided to participate in the rabbit round up because it was something out of the ordinary.

Left: Giuseppe De Filippo, Italian Wildlife Authority, places a rabbit inside a rabbit cage. The wildlife authority tagged the rabbits and took them to a safe location outside of Aviano.

Title photo: Volunteers attempt to herd a rabbit toward nets at the center of the flightline. The rabbits have no natural predators on base, their population increases and becomes an aircraft hazard.

Photo by A1C Liliana Moreno

Right: Marco Cabanello, Italian Wildlife Authority, detangles a rabbit during Aviano's Rabbit Roundup. Using noise makers, volunteers marched down the flightline in the hopes of corralling rabbits. After the rabbits were caught, the Italian Wildlife Authority released them back into the wild away from the base.

Photo by SSgt Colleen Wieman

Fighter Airspace Deconfliction

Photo by SSgt. Tony R. Tolley

By Maj Mark Bjorgen
USAFE/SEF
Ramstein AB,GE

Many times I've entered the training airspace on time to find aircraft still established and fighting a 4V4. Alternatively, there's a 2-ship of Hornets already established in a CAS wheel over your target area. When everyone is not on the link, how do you safely swap out? Fight and flight deconfliction are normally discussed in depth during pre-briefs, however, real-time deconfliction preparedness with other formations is rarely adequate. This transition from one group to the next is a mid-air potential if not performed smoothly, so let me introduce some considerations to keep you out of trouble.

Prebrief

Minimizing surprises starts with solid mission planning. First, study the airspace and know who is in the airspace before, during, and after you. Write call-signs, type aircraft, airspace times, and altitudes on your line-up card for quick reference. You can then anticipate who's going to show up where and at what time, and can identify your own slip capability. Also, if you need more airspace time, coordinate your changes with the others (flight leads, Top3s, SOF, AWACS, etc) early to prevent bottlenecks and wasted gas.

Arriving Aircraft

The arriving aircraft have certain responsibilities to expedite the transition. First, take pride in arriving on time. Be prepared to hold if you are early, or adjust your departure airspeed to arrive on time. If you are late, coordinate for extra airspace, or trim your profile to fit in the remaining time. Second, switch to the working frequency early and listen. Transitioning early allows you to learn the call signs and assess airspace activity. You can then wait for an appropriate time to announce your arrival instead of stepping on fight radio calls. Third, don't enter the airspace until you know it's clear. If you drive into the airspace, even for a G awareness exercise, you could be driving into the middle of a grind, an ACM engagement, or other aircraft exiting the airspace. Use on board resources (RADAR, LINK, eyeballs) to determine the status of the airspace. Radar controlling agencies can confirm the airspace is cold as well. Then, announce your arrival on the working frequency and shut up. With multiple radio aircraft, the airspace could be occupied even though the primary working frequency is relatively quiet. Give time for the established mission commander or flight leads to execute their fight and reply to your entry request. Finally, if nobody is there, announce your arrival ("Viper 01 established airspace for the next 30 minutes…") proceed with caution and look outside! We often tend to forget the basics of flight and how simple it is to just look across the horizon for traffic conflicts.

Established Aircraft

Each established pilot can assist in the handoff. First, monitor the primary working frequency and listen for check-ins. Pilots often miss the check-in of other aircraft on a frequency from channelized attention or not monitoring the working frequency. Missing the incoming aircraft check-in can inhibit your ability to deconflict

Photo above: F-15E Strike Eagles from the 494th Fighter Squadron, 48th Fighter Wing, RAF Lakenheath, fly in formation.

and expedite a swap-out. It's also a good habit to scan the horizon with eyes and RADAR to determine future conflicts. If you are in a CAS wheel, you can even do a quadrant scan, visiting each sector every minute as you rotate in your orbit. Finally, anticipate the arrival of the next set of aircraft, especially near the end of your airspace time. Use caution around the entry points, and be ready to transmit a "climb" or "descend" call.

Established flight leads can reduce the swap-over confusion by a number of methods. First, make it a habit to leave on time. Many young flight leads don't pay attention to the end of their airspace time resulting in unrecognized airspace overlaps, late landing deviations, and fuel troubles. With congested airspace and a high maintenance and ops tempo, it is important to fly the plan, and it's always good practice and time management discipline to work your sortie within the boundaries given to you. Additionally, as you approach the end of your allotted time, execute an RTB game plan. With larger exercises, not everyone can go home at the same time. Clear off Red Air, send home three and four, and then execute your recovery as a 2-ship. This method will assist RAPCON, tower, and maintenance as you perform your RTB.

Sample transition

Entering Aircraft:
(VIPER) Viper 11, entering (airspace) from the North for the next 30 min
Established aircraft creating altitude deconfliction
(EAGLE) Viper 11, Eagle 11 working in the block 5-250. Enter (airspace) above FL260
(VIPER) Viper 11 entering above FL260
The Handoff
(VIPER) Viper 11 ready for handoff.
(EAGLE) Viper 11, Eagle 11 weather…, other aircraft…, (targets, threats, friendlies…)
Exiting aircraft
(EAGLE) Eagle 11 departing to the West at 15,000, will call clear
(EAGLE) Eagle 11 clear West

Deconfliction

As a general rule, the established aircraft should control the deconfliction. They are knowledgeable on the current weather conditions, the location of all players in the area, and can create a transition game plan to keep everyone safe. Altitude is a good primary method of deconfliction. Direct the entering aircraft to enter high and you can run your entries and recoveries independently. If the inbounds must enter medium altitude, set them at a hard altitude, and recover below or above that altitude. Geographic deconfliction is the second method to consider. Inbounds can enter from the East, while recovering aircraft can proceed to the West. Additionally, the exiting formations should make a "clear of the airspace" call to announce lateral deconfliction from the fighting airspace. Once the departing aircraft are clear, then it's time for the "fights on".

The Handoff

Conducting a handoff brief with the arriving aircraft sets good habit patterns that are especially relevant during combat scenarios. Established aircraft can pass weather, usable airspace, other established aircraft, and working frequencies to the arriving formation immediately boosting their situational awareness. In a combat environment, particularly with continuous coverage missions (CAS, CAPs etc.), this critical handoff brief will expand to include targets, threats, location of friendlies, other players, controlling agency, etc. Since we train like we fight, incorporating these ideas into your daily ops will promote a seamless transition between formations, making you lethal starting with the first minute into your vul.

Considerations

If airspace deconfliction is a problem at your base, consider established standard altitude or geographic separation for airspace entry and exits. For example, inbound aircraft could enter at odd-thousands, or from the West, while outbound aircraft could enter at even-thousands, or from the East. Alternatively, scheduling could place a five minute buffer between airspace times to reduce bottlenecks and assist in the smooth flow between formations.

Bootlegging airspace is a legitimate way to maximize training when situations allow. However, know when the airspace is active, anticipate other aircraft arrivals, and be prepared to Knock It Off and exit quickly when a scheduled formation arrives.

Low level routes present a unique challenge, especially routes that are bi-directional. There are few things more exciting than being surprised by a passing a formation coming from the other direction, at 500 feet, using the same turn points. This could happen by double booking the low level, or by either of you starting your route early or late. First, radio reception is decreased due to proximity of terrain, and your entering call may not be heard by someone already established on the route. On long routes with anticipated traffic, consider making reporting point calls to highlight your position. Aggressively search with eyes and RADAR for threats, and use increased caution in mountainous or reduced visibility situations.

Use these tools to tighten your admin and prevent close passes. Smooth transitions in and out of the airspace calm the nerves, and keep the focus on the fight.

Are *USAFE*?

By MSgt Andrew Sherman
USAFE/FMFX
Ramstein AB, GE

Editor' note: Congratulations to MSgt Andrew Sherman! His is the first of three winning essays in the USAFE Services Libraries-USAFE Safety "Safety Smarts" Essay Writing Challenge to appear in Air Scoop. Look for another winning essay in the Fall issue.

Photo by A1C Kenny Holston

Col Robert G. Wright, Jr., Director of Safety, presents MSgt Andrew Sherman the *I Write for Air Scoop* plaque and USAFE Safety coin. MSgt Sherman won First Place in the "Safety Smarts" essay writing challenge. The challenge was co-sponsored by the USAFE Services Libraries and USAFE Safety. MSgt Sherman also won a one-week vacation from the Armed Forces Vacation Club.

The culture, the adventure, the new sights, the smells and sounds; the experience of being an American living in Europe is fantastic. We get to do things we wouldn't normally be able to back in the States. As individuals, it is our privilege to be here; as a military community—a team, a family—it is our obligation to be good American representatives. We should always remember that in a foreign country many of the rules are different than what we may be used to. We must be extra vigilant and think twice about all we do: how we work; play; travel; even how we present ourselves to our host-nation friends. How does safety tie into our experiences in Europe? It ties into everything we do to be good American ambassadors and citizens living in Europe.

Safety in a foreign country can seem complicated. We are assigned Wingmen. We exercise Operational Risk Management principles. We are constantly reminded to tone ourselves down when going downtown. We have frequent safety briefings and cross-checks. We even have color-coded diagrams on how to properly enter and exit a traffic circle! If you think about it, you'll realize that safety in a foreign country really isn't really all that complicated—even with all the rules. Common sense rules the day. It is critical to instill common safety principles in everything we do because unsafe actions can harm us when we least expect it.

This may sound corny, but my immediate family and I use a word-play for a simple safety reminder. We use it when we pile into the car to trek off to school or work, on a road trip, shopping downtown or even skiing in the Alps. We just ask each other the question, "Are USAFE?", meaning "are you safe?"

Believe it or not, this really helps us. It acts as a little automatic safety checklist of sorts. First and foremost, it reminds us where we are—in a foreign country as guests, yet expected to be out there on our own. Then the checklist begins. Is the car mechanically sound? Did we buckle our seat belts? Did we double check the fuel gauge and do we have extra gas coupons? (Europe is the only place I know of where you get fined if you run out of gas!) Did we let others know of our trip plans? Did we check the weather report?

The one simple question—Are USAFE? encompasses a lot. Because if you are safe, you are not only looking out for your own family, but for your extended USAFE family as well.

Practicing safety is really simple. We just need to be good American representatives, stick together, exercise common sense, look after one another, and ask the right question.

Are USAFE?

Wet roads, high speeds drive accidents

By A1C Cody Hobart
31FW/SE
Aviano AB, IT

It's no surprise that rainy conditions play a major role in the way we operate our vehicle. More than 450,000 crashes involving injury occur annually in adverse weather conditions on slick pavement, according to the U.S. Department of Transportation.

Hydroplaning is the leading cause of accidents during rainy conditions. Many accidents can be avoided if we educate ourselves on the causes of hydroplaning and make the decision to take preventative measures.

Typically, hydroplaning occurs when the amount of water being dispersed by the tire tread is less than the amount being forced under the wheel. A wedge of water is forced under the tire which is lifted onto a sheet of water. When a vehicle skims the sheet of water, all braking and steering ability is lost and the car is transformed into a battering ram striking everything in its path. A vehicle is supported only by four 6-by-8 inch tire footprints. Those few square inches of contact between your tires and the road will determine if you are driving your car or your car is driving you.

Hydroplaning begins sooner than most people think; a new tire will start hydroplaning at 45 mph on wet roads with minimal standing water. The same tire with half the tread depth will begin hydroplaning at 40 mph. That doesn't mean 39 mph is the magic number. The faster you drive or with more standing water on the road, the less traction you have and the greater the chances are for hydroplaning.

Prior to driving, we should ensure vehicles are in good condition. Tires are the first line of defense when combating hydroplaning. Good tires with proper inflation will reduce the chance of a vehicle accident.

The 31st Logistics Readiness Squadron's vehicle inspection publication states that tire tread depth will be at least 2/32 of an inch, or 1 millimeter, over the entire traction surface. To check tire tread, you could be fancy and buy a tread-depth gauge or you can just use a penny. Most people choose to use a penny. Insert the penny into each groove with Lincoln's head down; if Abe's head can be seen above any groove, replace the tire. At the same time it's a good time to check for cracks, cuts or bulges in the side wall.

Improper tire pressure is the leading cause of all accidents according to the National Highway Traffic Safety Administration. It is important to check tires at least once a month. Tires lose air naturally over time. Tires can also lose air suddenly when driven over potholes or if they strike curbs. Radial tires do not always show signs of under-inflation. Proper tire care and maintenance are key preventative measures that should be combined with smart driving.

Driving with cruise control during rainy conditions increases the chances of having an accident. The driver doesn't have the feel for the accelerator and the car can accelerate without warning. Uneven traction and the acceleration caused by cruise control can result in loss of control. Do not use cruise control when driving in rain or reduced friction conditions.

What can you do to avoid a crash if your vehicle starts to hydroplane? The most important thing is not to panic. Some people panic and turn the wheel to correct steering or apply the brakes abruptly to slow down. Any sudden movements can cause the car to skid and possibly result in loss of control.

The first step to take to regain full control of a hydroplaning vehicle is to remain calm and keep the steering in the direction you are traveling. Second, remove your foot from the gas pedal to decelerate and regain traction. In emergencies only, if the car needs to stop, pump the brakes in a car *without* an anti-skid braking system. Consult your vehicle manufacturer instructions for emergency stopping in vehicles equipped with ABS.

When driving we need to understand that we control our vehicle—our vehicle shouldn't control us—and our mission is to arrive alive. Mission success is dependent on adjusting to existing driving conditions. When driving in rain or reduced friction, reduce speed and drive to arrive.

One member lost to injury is one too many. Proper vehicle maintenance and smart driving are simply good decision making and planning. Driving in Italy is a challenge already, so why make it more difficult by driving too fast for road conditions?

Reprinted from The Vigileer

Recall Roster

Sears warns consumers to remove label from Craftsman Circular Saws, obstructed blade guard poses laceration hazard

The U.S. Consumer Product Safety Commission (CPSC), in cooperation with the firm named below, announced a hazard warning of the following consumer product.

Name of product: Craftsman Circular Saws

Units: About 308,000

Retailer: Sears, of Hoffman Estates, Ill.

Manufacturer: Positec Power Tools (Suzhou) Co. Ltd., of Charlotte, N.C.

Hazard: The "Craftsman" logo label located on the upper blade guard can become partially detached and interfere with the proper operation of the lower blade guard, exposing the saw's blade and posing a laceration hazard to consumers.

Incidents/Injuries: Sears has received two reports of the blade guard catching on the label with one incident resulting in an injury to the user that required 12 stitches.

Description: The recall involves a 7-1/4-inch circular saw. The model numbers included are: 172.108550, 172.108560, 172.108650, and 172.108660. The model number is located on the circular saw's upper motor housing. Model numbers 172.108560 and 172.108650 have a gray body housing and a gray blade guard. Model numbers 172.108550 and 172.108660 have a black body housing and a gray blade guard. "Craftsman" is written on the label on the upper blade guard.

Sold at: Sears, Kmart, and Orchard Supply Hardware stores nationwide and online through these stores from November 2004 through February 2007 for between $40 and $60.

Manufactured in: China

Remedy: Consumers should immediately remove the Craftsman label from the upper blade guard, according to the instructions. Instructions are available online at Sears.com (under the Product Recalls page) or at OSH.com (under the Product Safety page), or by contacting Sears at the number below.

Consumer Contact: For additional information, call Sears at (800) 659-7026 between 7 a.m. and 9 p.m. CT Monday through Friday, or go to their Web site at http://www.sears.com/sr/javasr/dpp.do?BV_UseBVCookie=Yes&vertical=Splash&cat=ProductRecalls&splash=true

Fall hazard prompts NHTSA, CPSC and Evenflo to announce recall of Embrace™ Infant Car Seat/Carriers

The CPSC and the National Highway Traffic Safety Administration (NHTSA), in cooperation with Evenflo Company Inc., announced a recall of the following consumer product.

Name of product: Evenflo Embrace™ Infant Car Seat/Carriers

Units: About 450,000

Manufacturer: Evenflo Company Inc., of Vandalia, Ohio

Hazard: When used as an infant carrier, the handle can unexpectedly release, causing the seat to rotate forward. When this happens, an infant inside the carrier can fall to the ground and suffer serious injuries.

Incidents/Injuries: Evenflo has received 679 reports of the handle on the car seat/carriers unexpectedly releasing, resulting in 160 injuries to children. These reports include a skull fracture, two concussions, cuts, scrapes and bruises.

Description: The recall involves Evenflo Embrace™ Infant Car Seat/Carriers made before April 8, 2006. The recalled car seat/carriers have model numbers beginning with 317, 320, 397, 398, 540, 548, 549, 550, 556, 597, 598 or 599. The model number and production date information can be found on a white label on the bottom of the carrier and on the top of the convenience base. Models beginning with "5" are units sold with the travel system (compatible stroller). "Evenflo" is on the carrying handle and car seat base. Embrace™ infant car seat/carriers made on or after April 8, 2006 are not included in this recall.

Sold at: Department and juvenile products stores nationwide sold the car seat/carriers from December 2004 through September 2006 for between $70 and $100 when sold alone and between $140 and $200 when sold with a compatible stroller.

Manufactured in: United States and China

Remedy: Consumers should not use the handle until the repair kit has been installed. The product can continue to be used as a car seat when secured in a vehicle. Contact Evenflo to receive a free repair kit that strengthens the handle latch. Recall notice will be sent to all registered owners of the recalled product. The recalled units should not be returned to the retailer.

Consumer contact: For additional information, contact Evenflo at (800) 490-7497 between 8 a.m. and 5 p.m. ET Monday through Friday or visit the recall Web site at http://www.embracehandle.com/

Infantino recalls infant sling carriers due to fall hazard

The CPSC, in cooperation with the firm named below, announced a voluntary recall of the following consumer product. Consumers should stop using recalled products immediately unless otherwise instructed.

Name of product: SlingRider Infant Carriers

Units: About 100,000

Manufacturer: Infantino LLC, of San Diego, CA.

Hazard: The plastic slider on the fabric strap can break. This can cause the strap supporting the carrier to release and infants to fall out of the carrier.

Incidents/Injuries: Infantino has received 10 reports of plastic sliders breaking, including eight reports of babies falling out of the carriers. There were four reports of impact injuries where the child was taken to the emergency room. One of these children fractured her skull.

Description: This recall involves the Infantino SlingRider™ carriers with item numbers: 141-210; 151-210; 151-528; and 151-534. The SlingRider™ consists of a fabric carrier with a strap attached that is worn by the user to carry an infant up to 20 pounds. The carriers are sold in black or khaki. "Infantino" is printed on the plastic slider located on the strap. The item number is printed on a label inside the SlingRider.™ Products labeled "Made in Thailand" or "New 2007 Design" are not included in the recall.

Sold at: Target Stores, Babies R Us, BJ's Wholesale Club, Burlington Coat Factory and other retailers nationwide, by catalog and online from July 2006 through February 2007 for about $30.

Manufactured in: China

Remedy: Consumers should stop using these carriers immediately and contact Infantino to return them and receive a free replacement product.

Consumer Contact: For more information, contact Infantino toll-free at (888) 808-3111 between 8 a.m. and 4 p.m. PT Monday through Friday or go to the firm's Web site at at http://service.infantino.com/

A&A Global Industries recalls children's bracelets due to lead poisoning hazard

The firm named below and the CPSC, announced a voluntary recall of the following consumer product. Consumers should stop using recalled products immediately unless otherwise instructed.

Name of product: Children's "Groovy Grabber" Bracelets

Units: About 4 million

Manufacturer: A&A Global Industries, of Cockeysville, Md.

Hazard: The paint on the metallic band beneath the decorative cover contains high levels of lead. Lead is toxic if ingested by young children and can cause adverse health effects.

Incidents/Injuries: None reported.

Description: The recalled bracelets are made of flexible metal bands wrapped in decorative plastic covers. The bracelets come in various colors and designs, including smiley faces, Chinese symbols, dogs, cats, aliens, checker boards, and flames.

Sold in: Vending machines located in malls, discount, department and grocery stores nationwide from November 2005—March 2007 for 25 cents.

Manufactured in: China

Remedy: Consumers should immediately take the recalled bracelets away from children and discard them.

Consumer Contact: For additional information, contact A&A Global Industries at (800) 638-6000 ext. 314 between 9 a.m. and 5 p.m. ET Monday through Friday, or visit the firm's Web site at www.aaglobalind.com

MISHAP

GROUND

During the second quarter of FY 07, USAFE experienced one serious fatal private motor vehicle (PMV) mishap and one miscellaneous mishap. Below is a short summary of the two fatal mishaps.

In January, a driver was speeding and lost control of his vehicle. The vehicle hit the base perimeter concrete wall. Three Airmen and a local teenager were involved in this major mishap resulting in the death of the local national. Drinking and driving, which contributed to excessive speed, is the root cause of this mishap.

In another incident, a young senior airman, after consuming an unknown amount of alcohol, crossed over the 3'8" guardrail, dropped approximately 24-feet 11-inches from a two-story parking garage and landed on a car. He sustained fatal head injuries. Alcohol is considered a contributing factor in this mishap.

The 101 Critical Days of Summer are from Memorial Day Weekend to Labor Day Weekend, and it's a time when many people are participating in a lot of recreational activities. Therefore, it's a time when we need to place extra emphasis on the personal well being of our families and ourselves. It's a time when we must make safety awareness a part of our everyday lives, on and off the job.

Photo by SSgt Tony R. Tolley

FLIGHT

Mid-Airs and CFITs are still the two biggest threats to our aircrew and aircraft. We have dodged the bullet a few times over the past couple of months in both the fighter and heavy communities so please take note.

We had a near mid-air between two fighters in the same formation as they pitched back into the fight. Detecting and targeting the inbound air threat took priority over the flight lead's responsibility to monitor his wingman and the wingman's responsibility to fly formation. During tactical maneuvering to the low altitude block, an aircrew mis-prioritized other tasks over altitude awareness during their low altitude transition and avoided hitting the water only because their aircraft's low altitude warning system alerted them. An aircrew on NVGs mis-prioritized threat detection over flying their aircraft placing themselves in an unusual attitude and temporally losing control of the aircraft.

To maintain the razor's edge on the tip of the sword we must train like we fight and fight like we train. Flying formation, low-altitude maneuvering, and a proper instrument crosscheck are the building blocks of all our tactical flying. They have to be that rock-solid foundation which all of our other tactical employment is built upon. Turning into hair, teeth, and eyeballs after a mid-air or CFIT is always a higher threat than being turned "white" during a debrief or being "shot down" by a SAM that was never launched. The bad guys win without firing a shot.

Photo by SSgt Samuel Rogers

WEAPONS

We have completed another quarter without any reportable mishaps in USAFE. However, the USAF did have 12 weapons mishaps, nine of which were Class E's.

The good news is nobody was injured in any of these incidents. The common thread through all of the mishaps was lack of vigilance and keeping your head in the game.

No matter how mundane the task and how many times you have performed it, you need to keep your focus.

Again, overall we are doing great this year. Keep up the great work.

Photo by A1C Liliana Moreno

STATISTICS

Class A Mishaps	FY 05	FY 06	FY 07 thru 2nd quarter
Industrial	0	0	1
4-wheel, PMV			
2-wheel PMV	0		
Pedestrian	0		0
Sports & Recreation	0		0
Miscellaneous			
Mishap Rate*	16.94**	40.48**	37.52**

*Mishap rate is per 100,000 people

**Off-duty rate

Last Class A Ground Mishaps

65 ABW, Lajes Field	18 Jan 89
39 ABW, Incirlik AB	14 Oct 01
100 ARW, RAF Mildenhall	18 Nov 05
435 ABW, Ramstein AB	06 Jan 06
38 CSW, Sembach AB	02 Sep 06
48 FW, RAF Lakenheath	3 Dec 06
52 FW, Spangdahlem AB	14 Dec 06
31 FW, Aviano AB	07 Jan 07
86 AW, Ramstein AB	14 Jan 07

Fatal

Non-Fatal Injury

Number = Mishaps without injury

Class A Mishaps	FY 05	FY 06	FY 07 thru 2nd quarter
Aircraft Flight	0	0	0
Aircraft Flight-Related	0	0	0
Aircraft Ground Operations	0	0	0
Aircraft Destroyed	0		0
Aircrew Fatalities	0	0	0
Ejections—Total Attempted	0		0
Ejections—Successful	0		0
Flight Mishap Rate*	0	1.17	0

*Mishap rate is per 100,000 flight hours

Flight Honor Roll

In recognition of sustained performance without an aircraft Class A mishap

UNIT	Last Class A
86 AW—Ramstein AB, GE	April 96
31 FW—Aviano AB, IT	July 01
48 FW—RAF Lakenheath	April 03
100 ARW—RAF Mildenhall	April 03

For recognition, units must fly for 12 months without a Class A mishap.

A-10 C-130 C-20 C-21

C-40 F-15 F-16 KC-135

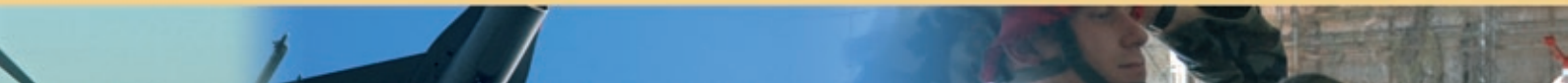
Mishaps	FY 05	FY 06	FY 07 thru 2nd quarter
Class A	0	0	0
Class B	0	0	0
Class C	2	2	0
Class D	7	3	0

Weapons Mishap Details

Last Class A Explosive mishap ..... April 1992

Last Class B Explosive Mishap .....May 2002
4 people injured by dropped BDU-33

Last Class B Missile mishap.....May 1999
16-AGM 88 missiles dropped $480,000 (15% of total cost)



Ride and don't drink

Don't drink and ride

Drink and don't ride

Four words that make sense in any order.

MSF MOTORCYCLE SAFETY FOUNDATION®

HQ USAFE SAFETY

when you RIDE, THINK – don't drink.