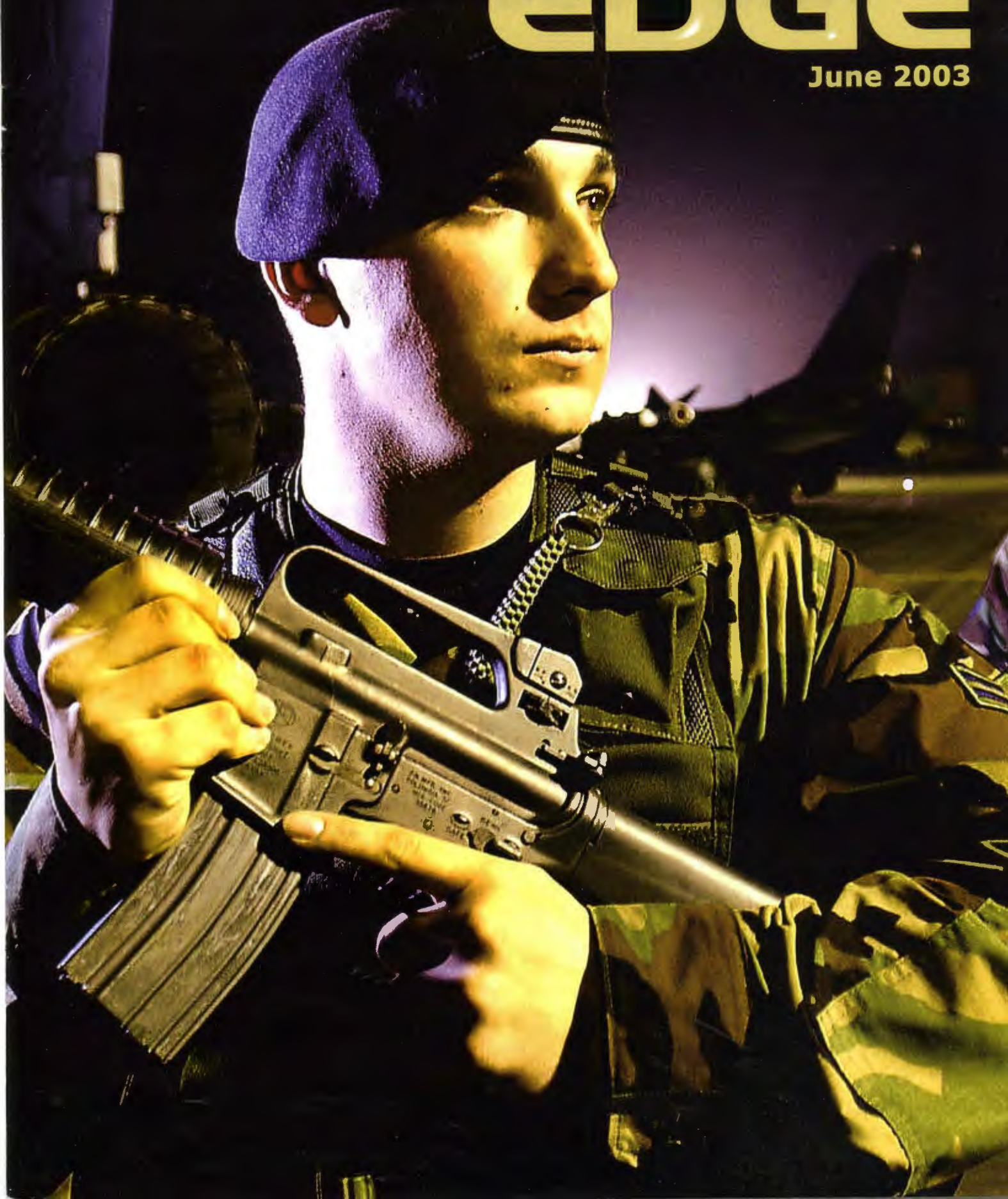


The Combat Edge June 2003

The Combat EDGE

June 2003



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Visit us on the web @ www2.acc.af.mil/combat-edge

MAJ REBECCA COLAW
EXECUTIVE EDITOR

MS. BARBARA TAYLOR
ASSOCIATE EDITOR

SSGT CARRIE BRYANT
DESIGN & LAYOUT

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CONTRIBUTIONS: Please send articles with name, rank, DSN phone number, e-mail and complete mailing address and comments to:

Executive Editor, *The Combat Edge*
HQ ACC/SEM
175 Sweeney Blvd
Langley AFB VA 23665-2700

Telephone: (757) 764-8868


DSN 574-8868

FAX: (757) 764-8975

e-mail: rebecca.colaw@langley.af.mil

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 Denotes images digitally manipulated.

Front Cover: MSgt Keith Reed



ACCent on Safety



"101 CRITICAL DAYS OF SUMMER"

Memorial Day marks the start of the "101 Critical Days of Summer" campaign. As we know from history the spring and summer months from Memorial Day through Labor Day traditionally present higher than normal risks for off-duty mishaps. We also experience a much higher fatality rate during this time period. To keep our ACC family safe, a heightened state of awareness and the practice of good risk management both on and off the job are necessary to mitigate risks.

We need to stay alert for the temptations and risks that claim way too many members of our ACC family. All too often common sense is not so common. So let's keep in mind the basics ...

- Refuse to let your friends drink and drive ... require a designated driver!
- Wear all your personal protective equipment ... seat belts, helmets, life vests!
- Maintain control of your vehicle ... and remember speed kills!
- Don't count on being lucky ... be prepared for things to go wrong!
- Remember that fatigue is not your friend ... have a good plan and stick to it!
- Know the risks involved in everything you do ... keep your risks to a minimum!
- If you can't reduce the risks to an acceptable level ... "knock-it-off" and don't do it!
- Demand that your subordinates, friends, and families manage their risks, too!

Enjoy your well-deserved vacations, reunions, summer sports, celebrations, and leaves, and let's all have a successful, enjoyable, and safe 101 Critical Days.

Colonel Kevin W. Smith,
ACC Chief of Safety



Photo by SSgt Christopher Mathews

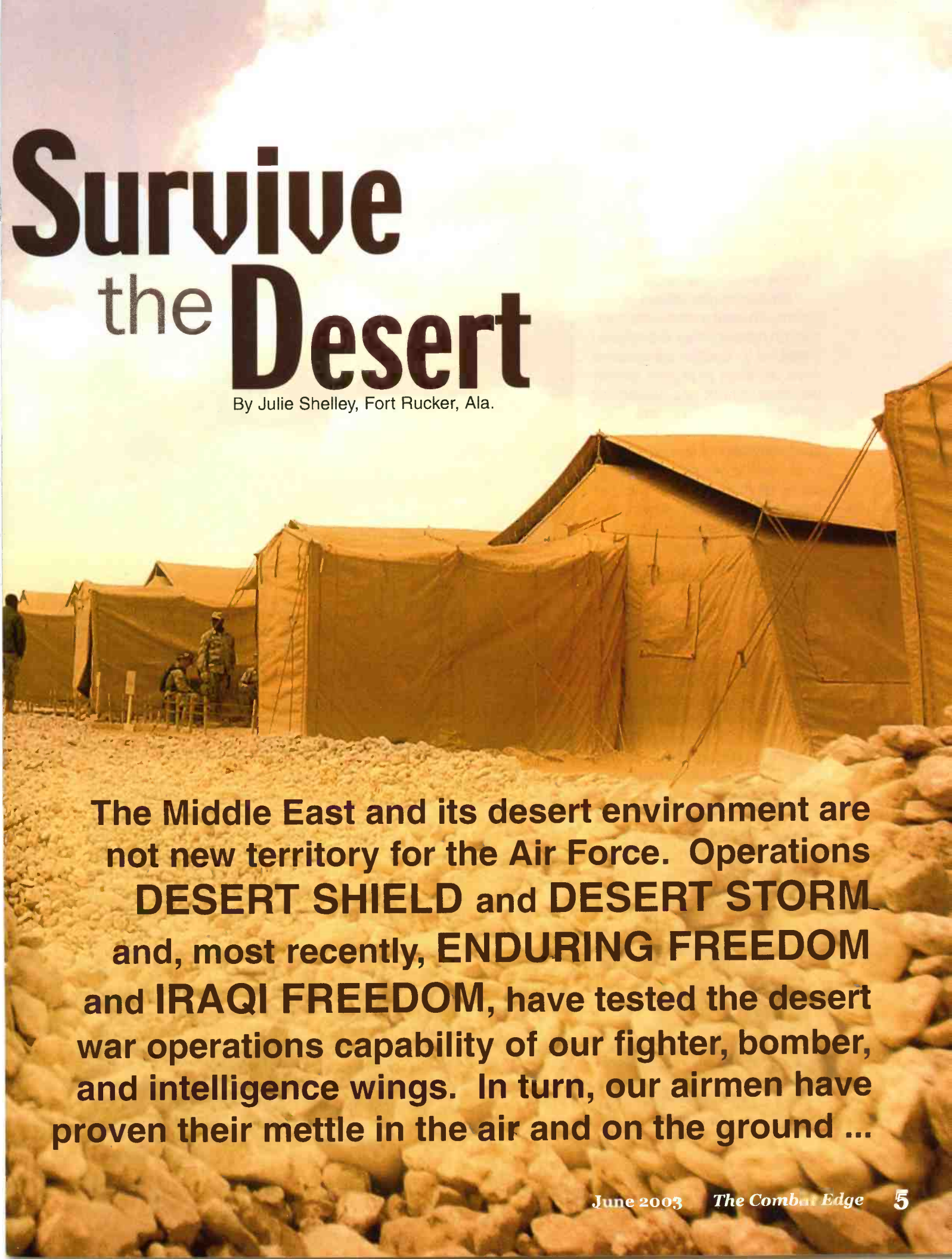
You Can



Photo by SrA Tammy L. Grider

Survive the Desert

By Julie Shelley, Fort Rucker, Ala.



The Middle East and its desert environment are not new territory for the Air Force. Operations **DESERT SHIELD** and **DESERT STORM** and, most recently, **ENDURING FREEDOM** and **IRAQI FREEDOM**, have tested the desert war operations capability of our fighter, bomber, and intelligence wings. In turn, our airmen have proven their mettle in the air and on the ground ...

m

any of our airmen facing deployment to the Middle East today have been to the deserts of that region before. They remember the blistering effects of the sand, sun, and wind. However, scores of deploying airmen have not had to endure the harsh and brutal conditions awaiting them halfway around the world.

Environmental effects of the desert can have a devastating impact on people if they are not prepared for it. Certain precautions must be taken to protect airmen and their aircraft and equipment during a desert deployment. Factors such as acclimation, adequate hydration, sun protection, heat injury prevention, and other concerns must be dealt with before, and especially during, deployment to a desert region.

One of the biggest dangers facing airmen in the desert is heat, and acclimation to that heat is vital to maintaining their health. Acclimation to heat is absolutely necessary for the body to reach and sustain efficiency in its cooling process. A period of 2 weeks should be allowed for acclimation, with progressive degrees of heat exposure and physical exertion — a gradual buildup to full performance. Although this strengthens heat resistance, there is no such thing as total protection against the debilitating effects of heat.

Radiant light from the sun is another danger airmen should be prepared for in the desert. The sun's rays, either direct or bounced off the ground, affect the skin and can produce eye strain or temporarily impair vision. Overexposure to sunlight will cause sunburn, and excessive sunbathing or dozing in the desert sun can be fatal! People with fair, freckled skin, a ruddy complexion, or red hair are more susceptible to sunburn than others, but everyone is susceptible to some de-



Photo by SSgt Matthew Hennen



Photo by SrA Tammy L. Gidder

gree. A suntan will provide some protection against sunburn, but should be acquired gradually and in the early morning or late afternoon. "Gradual" means that the skin should be exposed no longer than 5 minutes on the first day, with 5 minutes more being added each additional day. Extreme caution should be used while working in the sun: the sun is as dangerous on cloudy days as sunny days, and sunscreen is not designed to give complete protection against excessive sun exposure. In all operational conditions, airmen should be fully clothed in loose garments for sun protection and reducing sweat loss. When shade is required dur-

ing the day, it can be provided best by tarpaulins or camouflage nets, preferably doubled to allow air circulation between the layers and dampened with any surplus water. Aircraft and vehicle exteriors, as well as tools, can get extremely hot when exposed to sunlight for only a few minutes; crew members and maintenance personnel must wear gloves to prevent first- and second-degree burns when touching these items.

The combination of wind and dust or sand particles can cause extreme irritation to the mucous membranes, lips, and other exposed skin surfaces. Eye irritation caused by fine particles

Environmental effects of the desert can have an impact on people if they are not prepared for it.

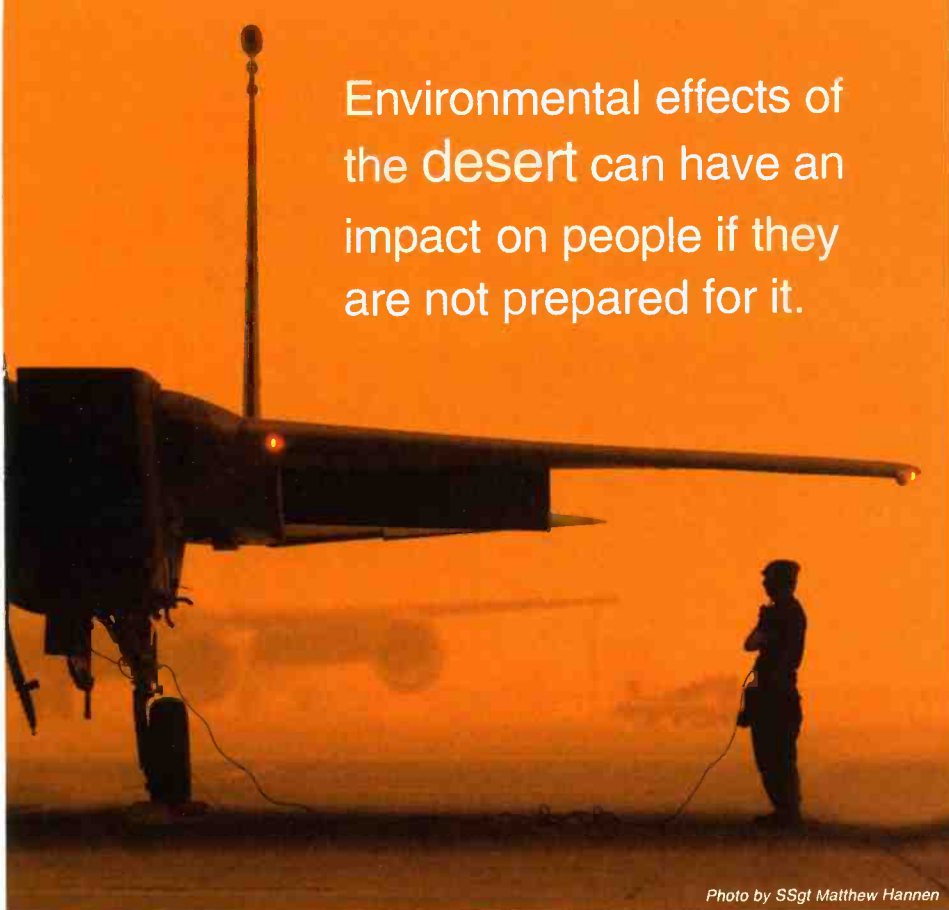


Photo by SSgt Matthew Hannen



Photo by SSgt Matthew Hannen

entering the eyes is a frequent complaint of vehicle crews, even when wearing goggles. Chapped lips are also common in the desert. The use of chapstick and skin and eye ointment is imperative in preventing and minimizing the effects of wind and sand.

Another danger of the desert is sandstorms. Fast, wind-blown sand produced in sandstorms can be extremely painful on bare skin, which is one reason why airmen must be fully clothed at all times. When visibility is reduced by sandstorms to the extent that military operations are impossible, airmen should not

leave their group unless they are secured by lines for recovery. Pieces of cloth or bandannas must be carried to cover the face and neck during sandstorms.

Climatic stress on the human body in the hot desert can be caused by any combination of air temperature, humidity, air movement, and radiant heat. The body also is affected adversely by such factors as lack of acclimation, being overweight, dehydration, alcohol excess, lack of sleep, old age, or poor health. The ideal body temperature of 98.6 degrees F is maintained by conduction and convection, radiation, and evaporation, or sweat. The most

important of these in daytime desert conditions is evaporation, since air temperature alone is probably already above skin temperature. However, if relative humidity is high, the air will not evaporate sweat easily and the cooling effect will be reduced.

Proper standards of personal hygiene must be maintained in the desert. Daily shaving and bathing are required if water is available; cleaning the areas of the body that sweat heavily is especially important. If sufficient water is not on hand for bathing, airmen should clean themselves by means of a sponge bath using solution-impregnated pads, a damp rag, or a dry, clean cloth. Underwear should be changed frequently and foot powder used often.

Everyone should be checked for signs of injury, no matter how slight, as desert dust and insects can cause infection in minor cuts and scratches. Small quantities of disinfectant in washing water can reduce the chance of infection. It is important to remember that even minor sickness in the desert can have dire consequences — prickly heat and diarrhea can upset part of the sweating mechanism and increase water loss, raising susceptibility to heat illnesses. The buddy system can help ensure that prompt attention is given to these problems before they incapacitate someone.

The desert is full of diseases. Common scourges found in the desert include plague, typhus, malaria, dengue fever, dysentery, cholera, and typhoid. Although some of these illnesses can be prevented by vaccines or prophylactic measures, proper sanitation and personal cleanliness are vital to disease prevention. Proper mess sanitation is also essential in the desert.

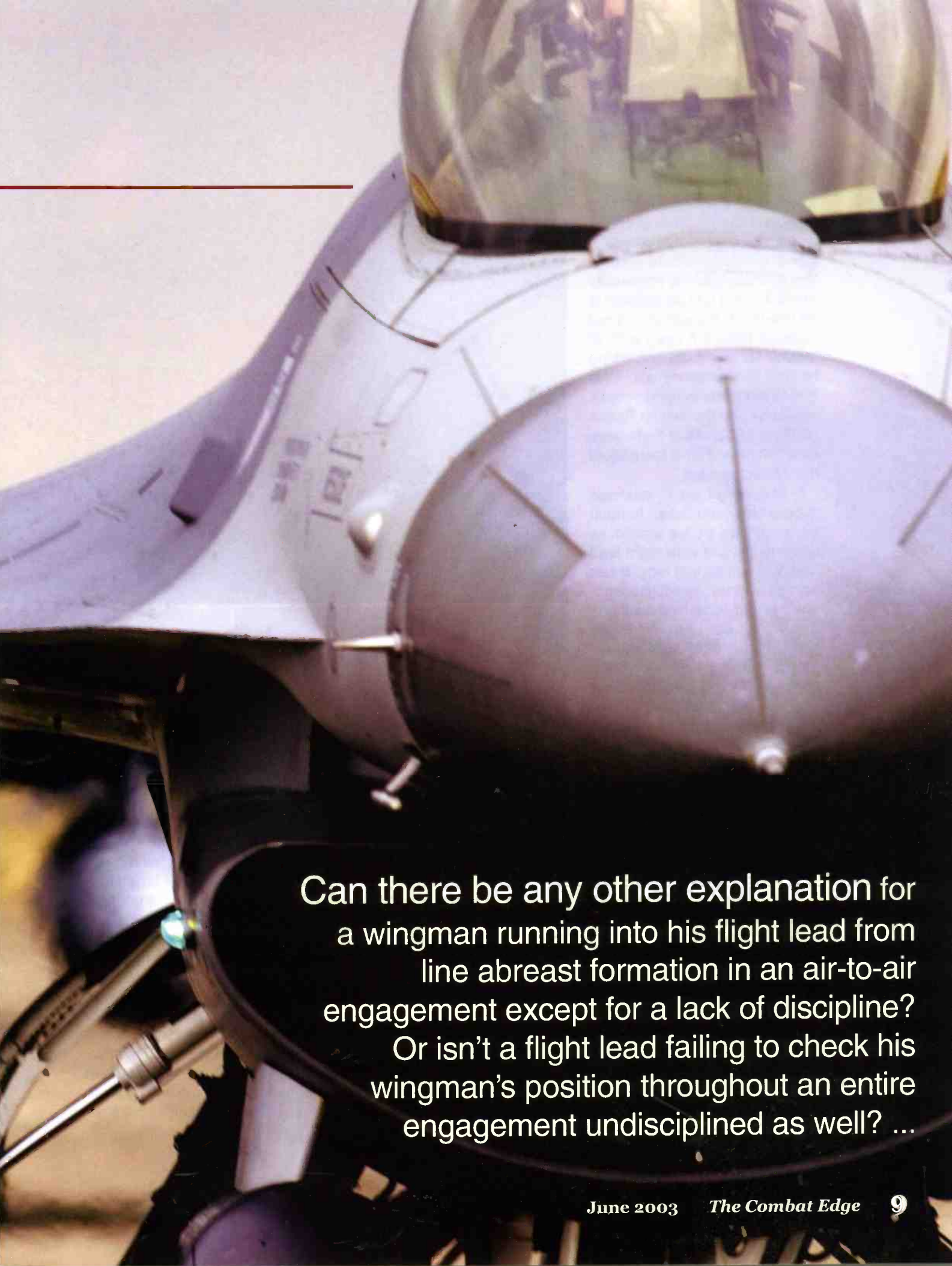
The desert should not be feared, but preparation is key to surviving in the desert. Arm yourself with the facts and stay safe! ►

Courtesy of the Army Safety Center

Discipline Breakdowns Cost Lives

By Maj Jim Roy, Langley AFB, Va.

Photo by SSgt Bennie Davis III



Can there be any other explanation for a wingman running into his flight lead from line abreast formation in an air-to-air engagement except for a lack of discipline? Or isn't a flight lead failing to check his wingman's position throughout an entire engagement undisciplined as well? ...

“T he good news is that the pilot ejected and is OK.” As part of ACC’s flight safety staff, we all breathe a sigh of relief when we hear those words. Sadly, we have not heard them very often recently when the mishap was either a midair collision or a collision with the ground. We all know that the Probability of Kill (P_k) of a ground collision is 99.9 percent. For midairs, it’s not quite so high, but even a P_k of around 50 is still not something to take your chances with. We lost seven pilots in fighter/attack mishaps in the Combat Air Forces (CAF) in 2002. All of them were in collisions and all of them could have been avoided.

Avoiding high P_k mishaps is both easy and hard. In most cases, it can be as simple as keeping sight of your flight lead and not running into him. It can also be as basic as not descending into flat terrain while flying at low altitude. For Air Force pilots, this is easy stuff and requires nothing from our engineers, systems designers, or program budget directors to fix. It’s simply a matter of adhering to the fundamentals of being a good fighter pilot whose number one job is not to run into the ground or a member of your flight.

Some might say that our number one job really isn’t that simple or else we would have figured out how to stop having accidents a long time ago? No, it truly is that simple. Look at the Thunderbirds. They fly jets closer to each other and do aerobatic maneuvers closer to the ground and they rarely have mishaps. With proper training, it’s not that hard. Like the narrator at shows tells the audience, “The Thunderbirds are just ordinary guys,” just like the rest of us — right?



Photo by MSgt Cesar Rodriguez



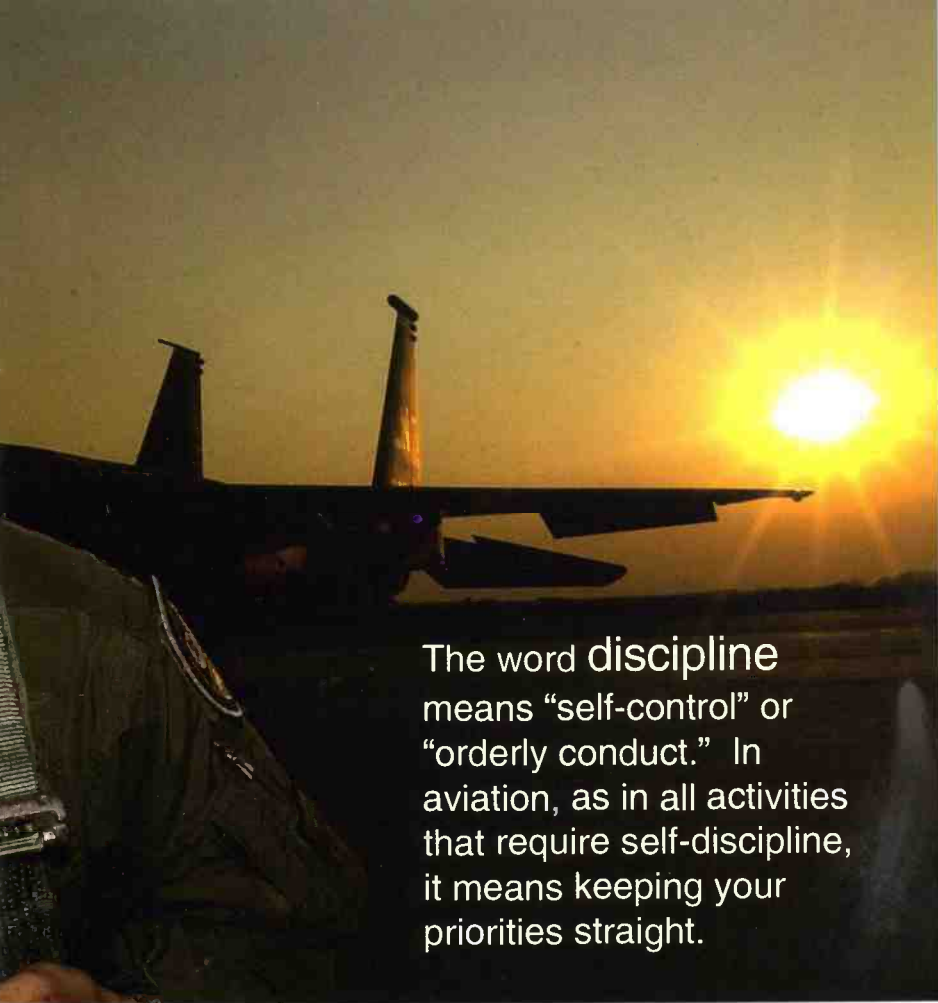
Photo by SSgt Cherie A. Thurlby



Photo by SSgt Jason W. Gamble

In my opinion our main problem is not that we have too many irons in the fire, though this position is contrary to a lot of what has been said on this issue lately. Now, it’s true that if all we had to do was fly around and keep from running into each other or the ground, then we would probably avoid all of the high P_k mishaps. And it’s also true that if we are to effectively employ the jet as a high-tech, warfighting machine, there are tasks that we must accomplish.

These tasks include: running the radar, digging out the target from an infrared display, targeting a wingman through pilot data link, and so on. These are complicated and can easily become task saturating. The list of new tasks just keeps getting longer and longer with each new wave of tactics and technology. The potential for task saturation and channelized attention grows right along with these increases in technology. But still, I don’t think that additional tasking is the primary culprit.



The word discipline means "self-control" or "orderly conduct." In aviation, as in all activities that require self-discipline, it means keeping your priorities straight.



Photo by MSgt Mark Bucher

Our main problem is that our number one job often gets pushed off of the top of our priority list. This is due to nothing less than a breakdown of flight discipline. However, before you object to this blunt conclusion, let me make it clear that I'm not talking about the kind of flight discipline breaches that result in flagrant training rule violations or crashing into your parents' backyard. We all know there are no excuses for these kinds of "crimes." But can there be any

other explanation for a wingman running into his flight lead from briefed line abreast formation in an air-to-air engagement except for a lack of discipline? And isn't the fact that the flight lead did not check his wingman's position throughout the entire engagement presumptuous, and perhaps undisciplined?

The word discipline means "self-control" or "orderly conduct." In aviation, as in all activities that require discipline, it means keeping your priorities

straight. Discipline means doing the right thing at the right time, and this kind of self-discipline is sometimes hard.

This is why avoiding high P_k mishaps is really not easy at all. It requires looking up from radar to check your wingman's position even if you don't have the perfect sort. It requires calling blind when you lose the visual before adjusting the IR gain, even if you're confident you will find your lead on your next look. It also requires immediately checking your attitude when you get a low altitude warning to confirm you are not descending, even though the bandit at six might get the advantage if you lose sight.

Add to the mix some new technology and discipline gets even more important. The designers, with the help of human factors specialists, need to take into account the impact new systems have upon a pilot's capacity to prioritize. And the system safety engineers need to continue to explore ways to help over-tasked pilots by providing improved situational awareness and collision avoidance systems. However, despite technology fixes, as long as there are humans behind the controls, flight discipline will always be the critical factor in avoiding mishaps.

Our pilot training programs from Undergraduate Pilot Training (UPT) to the Weapons School and every upgrade ride in-between must drive this point home. Avoiding collisions is our number one job, and pilots must be trained to keep it at the top of their priority list. This kind of flight discipline will produce habit patterns that will allow pilots to safely maximize the capabilities of their jet. Without it, we will continue to lose friends in mishaps that could have been avoided. ►

U-2 Emergency

By Capt Steve Rodriguez, Beale AFB, Calif.

Flying above 70,000 feet in a two-seat U-2 Dragon Lady, the crew had less than 10 minutes before a complete electrical systems failure ...

An emergency never before encountered in the aircraft. So began the ordeal of Maj Mike Means and Capt Steve Rodriguez in September 2001. Ultimately, the flight would test their mettle as pilots and earn them the 12th Air Force Aircrew of Distinction Award for Fiscal Year 2002. As pilots, the majority of our training consists of learning how to deal with emergency situations. Each aircraft type in the inventory has a "bible," if you will, of the specific procedures to be applied in the event of an emergency. Yet we realize that we may be presented with scenarios, which are either considered "impossible" or for which there exists no specific guidance. At that point, a pilot has little to rely on except for his or her previous experience in the airframe and good judgment.

I had the distinct pleasure of being presented with just this type of scenario while flying above 70,000 feet on a U-2 training sortie. I was about 3.5 hours into my second two-seat high-altitude training flight. My instructor pilot (IP) Maj Mike Means and I had completed the dead reckoning and the photo flightline por-

tions of the flight and everything was going smoothly. Proceeding direct to Beale AFB, we started our practice alternate gear extension checklist.

At this point the Multiple Display Indicator (MDI), the digital display that displays altitude, airspeed, free air temperature, and rate of climb, started the countdown cycle, which normally occurs upon the initial application of power to the aircraft. About the same time, I realized that the TACAN bearing pointer, which had been pointing to Beale off the nose of the aircraft, was now in the 2 o'clock position. Since I had not made a heading change, I asked my IP if he was seeing the same indications. He was, and we concluded that the TACAN was probably malfunctioning. At this time my MDI failed completely, his started to fail, and I noticed that the fuel flow indicator began to fluctuate wildly. By now, the hair on the back of my neck started to stand up and I began to try to remember everything I could about the U-2 electrical system. We discussed declaring an emergency with ATC, but decided to hold off until we were sure we had one. Then the radio crackled and died. I reached down and dialed 7600, the radio-out code, into the transponder.

Photo by Maj Jeff Olesen





A U-2 prepares to depart in support of a mission.

We realized we were facing an imminent total electrical failure and quickly worked together as a crew to configure the aircraft for landing. My instructor attempted to extend the speedbrakes and the spoilers, but this proved futile because the switches to actuate the components are DC electrically powered. I put the gear handle down, but the electrically powered indicators were unable to tell me the status of the gear. I then pulled the alternate gear extension handle to give the gear every chance to lock into place. Looking through the viewsight (a periscope which can be turned to look at the bottom of the aircraft), the gear appeared to be down.

My IP would be hand flying the descent from altitude without benefit of trim. On standby instruments alone, he would have to avoid stalling or overspeeding the aircraft. This is tricky since the U-2 is dynamically unstable, and the difference between stall and overspeed (and aircraft break-up) is only 15 knots at altitude. He would then need to fly a no-flap landing and stop the aircraft with an emergency braking system that has occasionally failed in the past. To complicate matters more, the pres-

sure suit makes every movement difficult, and without benefit of speedbrakes or spoilers it would take nearly 90 minutes to make the descent.

In the plus column, however, the weather was clear and a million. From our perch at altitude we could view the entire Sacramento Valley where, just to the east of the Sutter Buttes, was Beale's 12,000-foot runway. With the aircraft properly configured, we both agreed on the fuel quantity on board, which was important since our fuel counter had died and our no-flap approach would need to be flown only 2 knots above stall speed. We also agreed that I would turn off the battery switch, turning it back on once established on final. Reaching for the switch, I heard my instructor's voice over the intercom becoming weak and scratchy. I flipped off the switch, hoping it would provide some power upon landing.

While I read over the descent checklists and accomplished what I could, my IP flew the spiraling descent over the field. I continued reviewing the emergency checklists and diagrams for the electrical system, hoping for some bit of information that would restore electrical

power. But I knew that any hope of regaining electrical power was lost when the standby attitude indicator rolled over and died. Our battery, the source of our backup DC power, was depleted.

In back, my instructor computed the landing distance for our fuel weight and configuration, without brakes. Due to the very low drag produced by the Dragon Lady in a no-flap configuration, this computed distance actually exceeded Beale's 12,000-foot runway length. Our only option was to make the landing and hope that the braking system would work on touchdown. As we descended lower, I could see the emergency response personnel waiting for us. We came up initial and rocked our wings, flying the electrical failure pattern. I flipped the battery switch on. As I had expected, nothing happened.

The U-2 produces so little drag when in a no-flap configuration, it is necessary to fly a shallow glidepath (approximately 1.5 degrees) to be able to descend to the runway with near-idle power. Approaching the threshold, we reached our computed threshold speed of 81 knots. Adjusting pitch and power to stay on the proper glidepath, we felt the aircraft

approach the tickle of the stall buffet. My IP carefully decreased the angle of attack to keep the aircraft flying and crossed the threshold at the desired altitude of 5 feet. After flaring the aircraft into the stall 2 feet above the runway, the aircraft touched down tail wheel first, as desired, and he shut down the engine to reduce our landing distance. The brakes worked as advertised and we came to a safe stop 8,000 feet down the runway.

So what caused our little adventure? It actually all started on the ground. As we were being strapped into the cockpit, all power went dead on the jet. Thinking someone had bumped the external power switch to "OFF," I moved it to "NORMAL" to get power on the aircraft and prevent our Instrument Navigation System (INS)

from losing its alignment. Not wanting to lose the alignment if we touched the switch again, we elected to leave the switch in "NORM" and start the aircraft on battery power. Unbeknownst to us, what had actually happened was that a bus control circuit breaker in the belly of the aircraft had popped. This forced most of the aircraft systems to be powered by the backup source, the battery. Since the battery has a limited life, it is only meant to afford the aircraft a recovery capability in the event of an electrical failure. It is certainly not meant to power an aircraft through a 4.5 hour training sortie. So when the battery gave up the ghost, it looked like to us that we had a total electrical failure situation. Lockheed considered this type of incident to be

virtually impossible and no guidance existed in the Dash-1. As a result of our experience, Lockheed added procedures for handling power loss on the ground.

So what did I learn from this sortie? First, when you find yourself in a situation that's not in the book, you have to rely on training, past experiences, and your survival instincts. Second, my belief that systems knowledge is crucial was reinforced. Third, not all of the emergencies we encounter comply with Dash-1 guidance. Fourth, I believe it's important to share the experience with other aviators so they can gain from our experience. Finally, our last line of defense in situations like this is our experience and sound judgment. ►



We realized we were facing an imminent total electrical failure and quickly worked together as a crew to safely recover the aircraft.

Whiteman AFB, Mo.



Lineage

Established:

509th Bombardment Wing Very Heavy, on November 3, 1947

Organized:

November 17, 1947

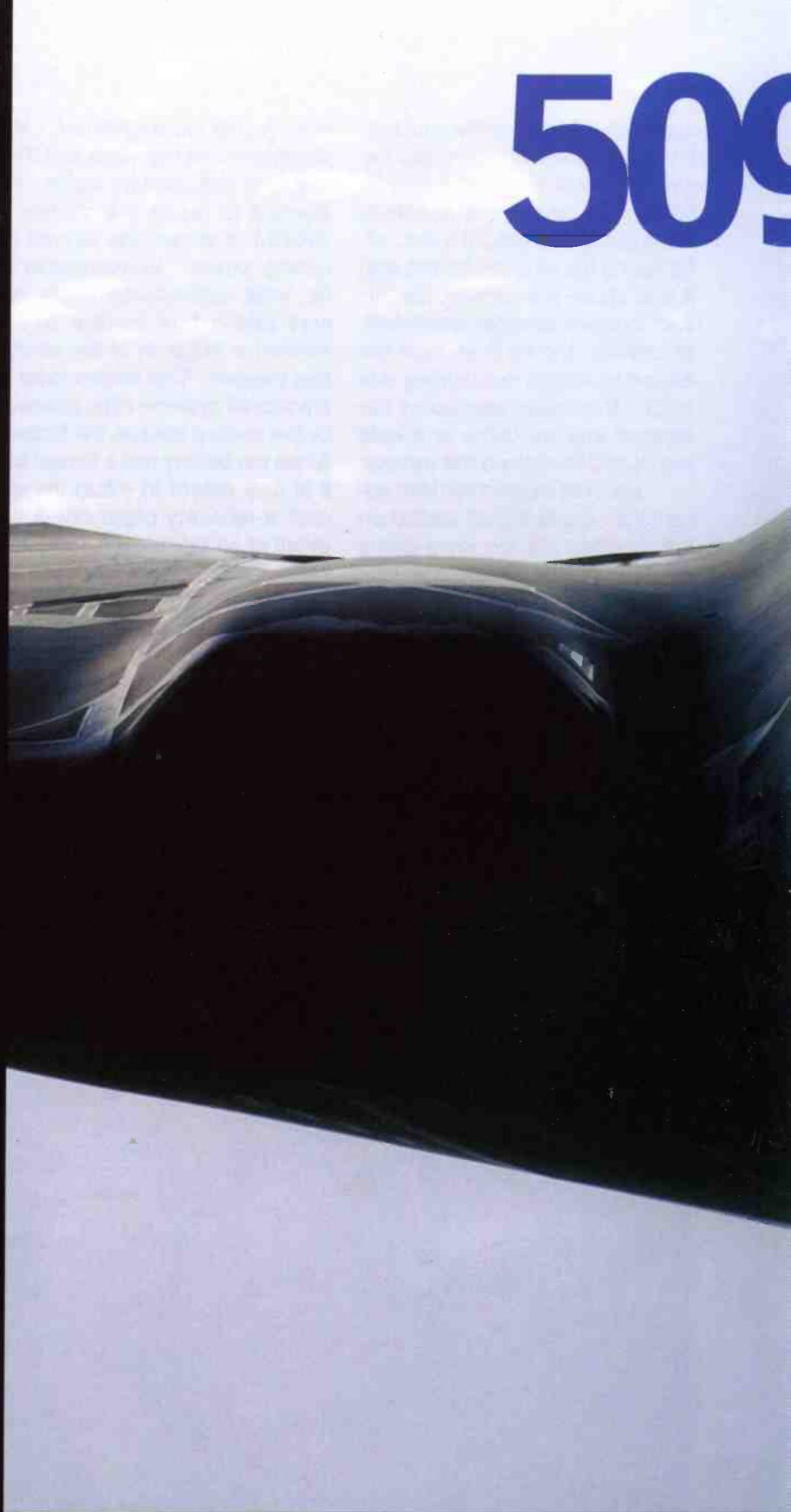
Redesignated:

- 509th Bombardment Wing, Medium, on August 1, 1948
- 509th Bombardment Wing, Heavy, on December 1, 1969
- 509th Bombardment Wing, Heavy, on September 30, 1990
- 509th Bomb Wing on September 1, 1991



General Characteristics:

Primary Function: Multi-role heavy bomber **Builder:** Northrop Grumman Hughes Training Inc., Link Division **Thrust:** 17,300 pounds each **Ceiling:** 50,000 feet **Takeoff Weight (Typical):** 336,500 pounds **Payload:** 40,000 pounds **Crew:** Two Pilots **Date Deployed:** Dec 1988



9th Bomb Wing



Photo by SrA Tia Schroeder

rumman Corp. **Contractor Team:** Boeing Military Airplanes Co., General Electric Aircraft Engine Group and engine **Length:** 69 feet **Height:** 17 feet **Wingspan:** 172 feet **Speed:** High subsonic **Cost:** \$1.157 billion **Range:** Intercontinental, unrefueled **Armament:** Conventional or nuclear weapons **Inventory:** Active force, 21

The Combat Edge



MONTHLY AWARD WINNERS

Pilot Safety

Award of Distinction

On Jan. 11, 2003, Maj Geary "General" Padden was the flight lead of an F-16 ADF adversary element during a 4v2 defensive counter air flight lead upgrade ride in support of the 179th Fighter Squadron, Minnesota Air National Guard. After three engagements, the flight "Fenced Out," rejoined, and headed for a post attack air-to-air refueling. En route to the tanker, Maj Padden noticed that his engine oil pressure did not increase with an increase in throttle movement. The F-16A does not have a Lube Low caution light, so the lack of increasing oil pressure represented a 50 percent or greater loss of oil. Maj Padden immediately declared an emergency and pointed the aircraft toward the nearest possible divert base, Duluth, Minnesota, which was 52 nautical miles to the west. Maj Padden directed his wingman to rejoin and accomplish a Battle Damage Check, which confirmed oil was running off the right underside of the fuselage. With temperatures at zero degrees Fahrenheit, a wind chill at -20 degrees Fahrenheit and facing

the possibility of having to eject over the icy waters of Lake Superior, Maj Padden kept his aircraft within gliding distance of land and executed flawless checklist procedures. The weather at Duluth was reported as overcast, 6 miles visibility and blowing snow. Maj Padden was forced to fly a flameout penetration through the weather in the event of possible engine seizure. Maj Padden maneuvered his aircraft to intercept the localizer approach to the active runway. Ensuring that a 1:1 glide ratio had been established, Maj Padden flew the steeper than normal approach perfectly. Maj Padden broke out of the weather in perfect alignment, visually acquired the runway at 3.5 miles and executed a textbook landing. Upon post flight inspection, the aircraft had lost 75 percent of its oil through the chip detector. It was also determined that it was only minutes until the rest of the oil would have been completely gone. Maj Padden's outstanding systems knowledge, keen situational awareness, and superior airmanship prevented the potential loss of two valuable combat assets: Maj Padden and his aircraft.

Maj Geary L. Padden, 148th Fighter Wing, Duluth, Minnesota



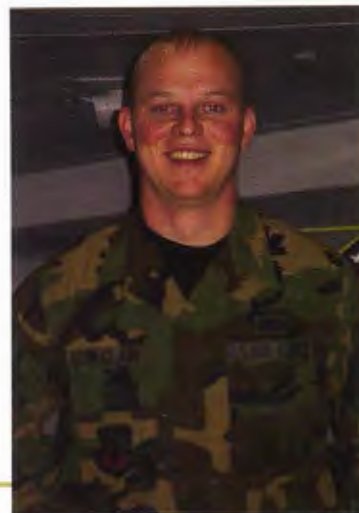
Crew Chief Safety

Award of Distinction

On Jan. 14, 2003, as a member of 12th Air Force's Viper West Demonstration Team, SrA McClain was performing the final walk-around inspection prior to launching an F-16CG from its parking location. During the inspection, he discovered a bolt protruding through a drain hole in the engine exhaust nozzle fairing (panel 4409). He immediately notified the pilot to shut down the engine and recommended the pilot abort the sortie. Following aircraft shut down, SrA McClain began investigating the origin of the bolt. Upon completion of a thorough inspection of the engine and engine bay, it was verified the bolt belonged to the hydraulic

pump of an engine currently in the propulsion flight. The engine in back shop repair was removed from this F-16CG the week prior to this occurrence. SrA McClain's close attention to detail and positive actions prevented the aircraft from launching with a loose bolt in the engine bay, potentially causing serious damage to the engine and engine bay components, and possible loss of a 28 million-dollar combat aircraft and an invaluable pilot member. His actions additionally highlighted a previously undetected condition on the engine in the propulsion flight, helping to ensure a completely serviceable engine upon repair completion.

SrA Matthew L. McClain, 388th Aircraft Maintenance Sqn., 388th Wing, Hill AFB, Utah



Weapons Safety

Award of Distinction

S Sgt Larry Driver displayed supreme safety awareness when he was called to respond to an A-10 ground emergency after its GAU-8 30-millimeter gun jammed during an ammunition up-load. He immediately took charge of the situation and ensured the area was quickly and safely evacuated. SSgt Driver then briefed the Explosive Ordnance Disposal team and fire department personnel on the unique safety hazards associated with the High Explosive and Armor Piercing rounds (API) in the jammed gun. In fact, all of the API rounds in the A-10 contained portions of depleted uranium making this MISHAP an unusually dangerous situation. SSgt Driver ensured that operations provided a pilot quickly as the aircraft needed to be taxied to the gun berm expeditiously. He determined that towing the aircraft was out of the question due to the hazard posed to the driver. Next, he diligently followed technical orders in attempts to safe the gun; when the gun couldn't be safed using the procedures in technical orders, he ensured all work was stopped until the "Unsafe Gun Rapid Response Team" could

**SSgt Larry L. Driver II, 23rd Aircraft Maintenance Sqn.,
23rd Fighter Wing, Pope AFB, North Carolina**

be flown in from Eglin Air Force Base. SSgt Driver's masterful leadership of this crisis enabled the A-10's gun to be safely cleared of ammunition and ensured the safety of the emergency response team. His efforts preserved a \$135,000 GAU-8 gun from destruction and prevented an environmental catastrophe. A stickler for attention to detail, SSgt Driver also discovered the root cause of an inadvertently fired impulse cart on aircraft 80-0140. He identified a faulty micro switch in the bomb rack which allowed voltage to reach and fire the cart. An acknowledged weapons system expert, SSgt Driver led the investigation of a recent in-flight loss of a Triple Ejector Rack (TER). His team duplicated the malfunction and discovered a shorted wire in the TER cable. He inspected the cable and discovered the exposed wire not only had been spliced incorrectly but also improperly wrapped. This short turned out to be a systemic problem: SSgt Driver instigated an immediate one-time inspection of all TER cables with 61 of 68 cables identified as bad! His swift actions prevented untold future USAF weapons mishaps.



Unit Safety

Award of Distinction

D uring the month of January, the 32d Combat Communications Squadron mobilized and deployed in support of the continuing Global War on Terrorism. Immediately upon return from the New Year holiday the squadron began the enormous task of inventorying and packing over 138 tons of tactical communications equipment, support items, and tents. Quickly realizing the potential for mishaps, the squadron mandated the use of steel-toed boots, reflective belts, work gloves, and hard hats when building cargo pallets. The importance of personal protective equipment was reiterated at daily safety briefings. Exterior lights were set up to illuminate outdoor work areas and reduce the potential for tripping hazards as crews often worked late into the evening. In all,

44 increments of cargo, consisting of 19 pieces of rolling stock and 25 pallets were built. Facility chiefs prepared 81 hazardous cargo declarations to ensure aircraft loadmasters were aware of potentially dangerous materials. In order to ensure aircraft safety, the squadron's Quality Assurance (QA) team personally inspected each increment of cargo. No increments were frustrated at Tinker Deployment Control Center. Additionally, the squadron conducted refresher training for 27 personnel requiring Self-Aid and Buddy Care and Cardiopulmonary Resuscitation training. Squadron effort ensured deployment of over 4-dozen troops without a single safety mishap. Once on the ground in Southwest Asia, the team downloaded and set up 67 tons of communications equipment and assisted civil engineering by erecting 30 living tents — without incident.



32nd Combat Communications Sqn., 3rd Combat Communications Group, Tinker AFB, Oklahoma

MONTHLY AWARD WINNERS

Ground Safety Award of Distinction

S Sgt Michael E. Stewart attacks challenges with enthusiasm and determination, he was hand selected by the Squadron Commander over more senior ranking members for 333 FS Unit Safety Representative duties. While maintaining top-notch Life Support ground and weapons safety programs, he was faced with the challenge of developing a brand new squadron safety program from the ground up. He coordinated with squadron leadership to develop a sound plan of attack for implementation of new safety standards. His unequaled organizational skills and energetic attitude led to the identification and immediate elimination of potential squadron safety hazards. He focused efforts to ensure all supervisors had the appropriate level of safety training and were adopting new initiatives. SSgt Stewart ensured all troops were up to date and knowledgeable on safety guidance to include the thinking "inside the box concept." He designed the squadron safety board with the idea of "one stop shopping" for safety information, combining weapons, ground, and flight safety

into one location. SSgt Stewart used innovative ideas to build interest about safety matters. Recently during a weekly safety briefing he shared information about a defective product, which was owned by one of the Life Support personnel's children. The knowledge gained from this safety briefing helped prevent potential injury to that child. His vigilant spot inspection program has significantly increased the level of awareness about safety and clearly demonstrates his altruistic concern for the safety of others. In addition, the outstanding work ethic of SSgt Stewart contributed to the Life Support work center receiving an "Excellent" rating during the Annual Wing Safety Assessment. The 4 FW/SEG lauded SSgt Stewart as having "One of the best safety programs on the base." Unwavering commitment to the ground safety program directly contributed to the 4 FW receiving an "Excellent" rating on the 2002 management evaluation. SSgt Stewart is the epitome of the philosophy "Safety starts here" and has made spreading the safety message a top priority.

**SSgt Michael E. Stewart, 333rd Fighter Sqn.,
4th Fighter Wing, Seymour Johnson AFB, North Carolina**



Flightline Safety Award of Distinction

Prior to an Operation ENDURING FREEDOM sortie on the E-3 AWACS, the Flight Engineer discovered a serious flight control problem during his night preflight inspection. The right outboard spoilers were raised approximately 1 to 3 inches above the wing surface. A team of maintainers immediately began work to resolve the issue. They adjusted the control arms and checked the spoiler control cable rigging in accordance with E-3 Technical Orders. The team of technicians

keenly discovered that one of the cables was improperly rigged and incorrectly routed for both spoilers and ailerons. The cable was wrapped around a phenolic block, literally sawing the block in half. This team worked together with Tinker AFB Depot engineers to resolve the problem in a safe and timely manner. The attention to detail and mission focus displayed by this dynamic team of airmen was crucial in identifying this problem before it became a mishap with the loss of an aircraft and more than 20 aircrew members.

**SSgts Christian Williams, Eric McDonald and
Charles Whalen, A1Cs David Heaps and
Tyler Nicholl, 960th Airborne Air Control Sqn.,
552nd Air Control Wing, Tinker AFB, Oklahoma**



Aircrew Safety

Award of Distinction

On Jan. 15 2003, an RC-135W crew was on station for an operational sortie out of Prince Sultan Air Base, Saudi Arabia, in support of Operation SOUTHERN WATCH. Approximately 2.5 hours into the mission, the Aircraft Commander (AC) noticed a steady illumination of the #3 Reverser Operating light with no indication of associated yaw or correction by the autopilot. This was highly unusual as the #2 and #3 thrust reversers had been physically deactivated. The AC directed the Instructor Tactical Coordinator (ITC) to proceed to the rear of the aircraft to visually inspect the #3 engine for any indication of thrust reverser activation. At this time, the ITC was unable to visually detect any abnormal engine configuration. The AC disengaged the auto-throttles and retarded the #3 throttle to idle while the copilot consulted the Dash One. The Navigator ensured the aircraft remained on-station and on-course while the pilots ran the checklist for "Engine In-flight Thrust Reversal." Upon advancing the #3 throttle in accordance with step four of the checklist, the crew immediately noticed a sudden yaw and roll. This was accompanied by significant airframe buffeting. The AC immediately shut down the malfunctioning engine. The ITC once again visually inspected the #3 engine and confirmed that the engine now appeared to be in the reverse thrust configuration.

Cpts Gregory W. Nita, Timothy J. McArthur, Woojay A. Poynter and Christopher W. Chang, First Lieutenants Carl C. Schluckebier, Andrew L. Burroughs, and Daniel L. Resseguie, 343rd Reconnaissance Sqn., and 38th Reconnaissance Sqn., 55th Wing, Offutt AFB, Nebraska

After ensuring a proper engine shutdown, the crew coordinated with Command and Control for a descent and RTB. While en route to PSAB, the crew declared the in-flight emergency. The crew accomplished the "Fuel Dump Checklist," normal and emergency checklists, and checked landing weather. The AC briefed the crew on the approach and his plan to taxi clear of the runway to await inspection by fire department personnel. Due to increased crosswinds (220 17G22 for RWY 17) and blowing dust, the AC elected to fly the precision ILS approach to reduce the possibility of an engine-out go-around and mitigate the crosswind risks. A normal ILS was successfully flown, the aircraft was inspected by the Fire Chief, and the emergency was terminated. Post-flight inspection revealed that the deactivated thrust reverser's aft sleeve hook safety wire had failed. This resulted in the hook losing hold on the TR sleeve, and allowed the thrust reverser to deploy unexpectedly. Given the highly unusual nature of this emergency, the precise analysis and professional airmanship displayed by the crew were essential to recover a highly valuable asset from an extremely hazardous condition. Crew Resource Management, aircrew training, sound judgment, and flight discipline all played major roles in the safe return of 23 personnel and a \$250 million reconnaissance asset.



ACC Safety Salutes Superior Performance

Capt Julian L. Pacheco
Pilot, 4th Fighter Sqn.
388th Fighter Wing
Hill AFB, Utah

A1C Neil E. Fouts
Weapons Load Crew Member
388th Aircraft Maintenance Sqn.
388th Fighter Wing
Hill AFB, Utah

A1C Andrew W. Armstrong
Equipment Operator
355th Civil Engineer Sqn.
Davis-Monthan AFB, Arizona



GLOC an Ever- Thre



By Maj Jim Lasswel, Spangdahlem AB, Germany, and Capt Gary Rice, Ramstein AB, Germany

In the June 2001 issue of *Flying Safety*, the friendly folks of the Air Force Safety Center (AFSC) Life Sciences team published an update on G-induced Loss of Consciousness (GLOC) trends within the Air Force. They shared the news that, between Fiscal Year (FY) 1991 and 2000, the fighter/attack communities experienced a steady downward trend in the Class A GLOC rate¹. But what does the picture look like if we focus on the last 5 years within the **Combat Air Forces** (CAF)²?

Between FY97 and 01, the CAF reported nine GLOC incidents — with a marked decrease in reported incidents in the last 2 years. Seems the downward trend continues in the CAF. But don't get complacent. During the same 5-year period, the CAF experienced four Class A GLOC mishaps — one in FY97, FY98, FY99, and one last year. The FY01 Class A GLOC rate for the CAF was 0.15 per 100,000 flying hours. It should be zero.

GLOC is an ever-present threat that demands respect. Keep your eyes on this killer and know

the factors that open the door to GLOC. Even one lost life is too many — especially in light of current man-side equipment, acceleration training, and the caliber of our warrior force.

Like so many human factor issues, GLOC is not a simple problem. There are physiological and psychological pieces to this puzzle. Situational awareness plays a huge role. In fact, AFSC data reveals close to 33 percent of GLOC within the Air Force involves a breakdown in attention



....
Present
at!

*The Aircraft pictured are assigned to
the Replacement Training Unit (RTU)
at Luke AFB, Ariz.
Photo by SSgt Jeffrey Allen*

management — a pilot's attention gets channelized or diverted from the task of G-awareness.

So how do you minimize the risk for GLOC? Anticipate what's coming your way with thorough mission planning. Maintain an accurate awareness of the jet's energy status. All the things you know and practice. But also keep an eye on the other factors that open the door to GLOC. What factors, you ask? Lots o' factors, but (because of limited real estate, and even more limited attention spans) we're going to focus on only a few:

Anti-G Straining Maneuver (AGSM). The AGSM is your best defense against GLOC, but the ma-

jority of GLOC events in the last 5 years resulted from an inadequate strain. By the time you're a mission-ready pilot, straining under Gs is locked in as a natural motor response. That's good. Unfortunately "what we (often) have here is a failure to anticipate" and a failure to perform the AGSM properly. That's bad. Recognize that the AGSM is most effective when initiated prior to G onset and when done by the book. Also, recognize that the level of strain that seemed to work fine yesterday might not work today, because your G-tolerance and endurance vary from day to day. That fact makes it imperative to stay on top of the G-environment. Use the G-

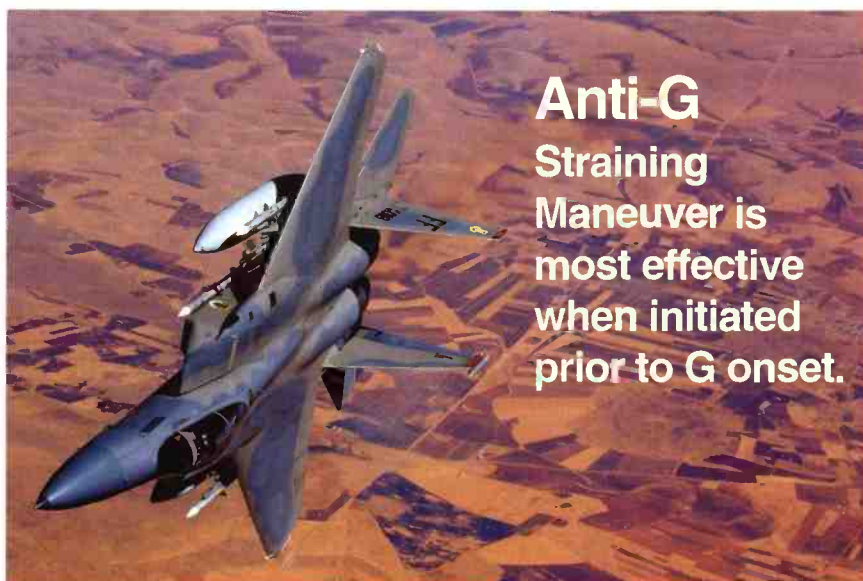
awareness turns to gauge your performance and set your personal G-limits for each mission.

Fatigue. You know you're not at your peak after getting only 4, 5, or even 6 hours of sleep. But did you know that after 17 hours of sustained wakefulness, your performance decreases to a level similar to 0.05 Blood Alcohol Content (BAC)³? You wouldn't balance your checkbook, make investment decisions, or study Professional Military Education (PME) in that condition (OK, maybe PME), so why step to the jet if you're not good to go?

The story gets worse the longer you're awake; after 24 hours of sustained wakefulness, performance decreases to a level similar to 0.10 BAC.

How's this related to GLOC? Multiple engagements are fatiguing enough. Add pre-existing fatigue (from interrupted sleep, shifting schedules, etc.) and you're asking for trouble. There just happens to be an incident that cements our point (imagine that): A while back (in a galaxy far, far away) a pilot from a sister command flew an air combat maneuver training mission in a fighter aircraft (something that looked remarkably like ... an F-16). Prior to the fifth engagement, he informed flight lead that he was worn out but wanted to keep going. He would "float his turns" ("Danger, Will Robinson!"). A couple of signals screaming out to call it a day right there, but it didn't happen. Instead, "fight's on" — lead and the bandit began to mix it up. Our hero extended to regain a visual. While he's screaming along, the bandit maneuvered to his six and locked onto him. Not fun, but the real problem came when the aforementioned pilot instinctually reacted with a 7-G break turn. The pilot lost consciousness, but awoke in time to notice large rocks rapidly becoming larger. Thankfully he regained enough SA to eject and lived to fly another day.

The moral to the story: On an individual level, listen to your body.



**Anti-G
Straining
Maneuver is
most effective
when initiated
prior to G onset.**



Ideally you're at peak performance for every flight, but it's probably not happening every time. Are you really taking a hard look at your physiological condition? Do you take yourself off the schedule if you're not 100 percent? Can you handle the worst the mission might throw at you? During the flight, constantly reassess — you're at greatest risk of GLOC during the fourth engagement of the second sortie on a pit-and-go. On an organizational level, supervisors should watch for troops pushing it up too far — including yourself! Set the example in word and deed. Take folks off the schedule if they're showing obvious signs of fatigue.

Physical Conditioning. A consistent fitness program delivers demonstrated benefits for G-tolerance and sustained performance: High-intensity strength training increases your ability to withstand high G-forces for a longer period of time, while moderate aerobic training decreases the recovery time needed between engagements and sorties. You know, — exercise is good for you. Just like eating your vegetables, getting plenty of rest, and brushing your teeth after every meal. But who has time? You have to make it! Carve precious minutes out of your day and hit the gym at least three times a week. One last tidbit: avoid strenuous activity 3 to 4 hours prior to stepping. Strenuous exercise temporarily reduces the muscles' energy stores and requires time to replenish.

Nutrition. While your muscles have stored energy, your brain does not! Even if you're not a "breakfast person," eat something — granola bar, yogurt, or your favorite fruit smoothie. Throughout the day, you need to sustain your energy levels by eating 4 or 5 small meals per day. Not feasts ... small meals or snacks. Stay away from simple sugars and try not to abuse caffeine. Ideas for your snack arsenal include: beef jerky, fruits, vegetables, tuna fish, protein and/or en-

ergy bars, and dried cereal. Anticipate the crunch points in your day and plan accordingly.

Hydration. STAY HYDRATED! Constantly sip water versus uploading prior to a mission. All pilots, but especially female pilots, may try to cut back on their water intake to avoid the "piddle pack pirouette" during a sortie. Not good practice. Folks are working a solution to this human contortionist problem, but in the interim ... drink! We've said it before and we'll say it again — if you're thirsty, you're dehydrated. If you're dehydrated, your G-tolerance can be reduced up to 50 percent⁴. Best way to combat that reduction is to get into the habit of sipping water throughout your fine Air Force day.

Proper fit, wear, and testing of life support equipment. Common sense stuff, but equipment problems (self, gear, or aircraft-induced) bit seven CAF pilots in the last 5 years. Ensure daily and periodic inspections are performed. Check and completely close the comfort zippers. Make sure your G-garments fit properly and are snug. Check the G-suit connection in the cockpit and perform ops test. Sounds simple, but we've seen problems in the past. Classic "missed procedure" as a pilot gets bumped to the spare, rushes checklists to make range times, gets airborne and to the range, engages a bandit, but then GLOCs — never realized he didn't connect his G-suit. It's happened before. Don't let it happen again.

Bringing It Home. OK. We said we'd only cover a few of the factors impacting your G-tolerance and potential for GLOC. We lied — but with good intentions. GLOC may not show its ugly head very often in the CAF, but it's alive and well. It comes at you on multiple fronts and involves your physiological and psychological performance: misperception of energy state, ineffective AGSM, and decreased G-tolerance because of _____ (you fill



Photo by MSgt Terry L. Blevins

An F-15E weapons system officer checks her G-suit side panel zippers and connects her harness leg straps prior to an Operation IRAQI FREEDOM mission.

in the blank). Defeating this enemy requires enhanced situational awareness that includes tactical and spatial awareness, but also includes an accurate assessment of your own G-performance for the day. Control the factors you can, anticipate and plan for the factors you can't. Every little bit counts in keeping our GLOC rate where it needs to be — at zero! ▶

Reprinted Courtesy of Air Scoop, Spring 2002

"Acceleration Bites" (Flying Safety, June 2001).

²Information derived from Air Force Safety Center mishap database, FY96-01, Combat Air Forces only (excludes AETC fighter/attack events).

³Center for Sleep Research, University of South Australia, and University of Adelaide, South Australia (Nature, 1997).

⁴G-Awareness for Aircrew (Air Force Pamphlet 11-419, 1 Dec 99).

Personal Protective Equipment

By TSgt "Mac" McDaniel, Offutt AFB, Neb.

There's been a lot of interest in motorcycle safety recently. A major focus has been on the Personal Protective Equipment (PPE) that we, as Air Force members, are required to wear while operating our motorcycles.

Because I am in the Safety office, I get to see lots of graphic accidents. Man 'o man, some of them are incredible. The disturbing part is many of the injuries could have been greatly reduced or completely avoided by wearing the proper gear.

I'm guilty of learning the hard way myself. I used to ride in shorts, a T-shirt, and a "beanie" helmet. I'd cross the bridge into Iowa and toss the helmet into the ditch and retrieve it on the way back. Not any more. I have had several fairly hard "get offs" in the last 5 years — three to be exact. It seems the more I fall off, the better I dress.

Luckily, the first time I just happened to be dressed a little better than normal. My helmet was toast, jeans were shredded, and my hands were raw. After having my road rash scrubbed clean by the biggest, baddest, and least friendly nurse they could find, I made the decision that I didn't want to go through that again. Emergency rooms are not motorcycle friendly, and growing new skin is not a pleasant experience.

I have gained a lot of wisdom from my experiences and hope that everyone reading this will take heed and not repeat the

same mistakes. A good place to start this learning process is by tackling all the reasons people give for not wanting to wear their PPE. I hear all kinds of excuses and justifications when I talk to our folks, but most just don't hold water.

"It's too hot." A good jacket, helmet, and gloves will actually keep your body temperature cooler on re-

traffic, it takes very little time for the temperature to rise to an uncomfortable level. But as soon as you get moving, you'll be all right. Trust me, a small heat rash is better than road rash.

"I can't feel the controls with gloves on." Sure you can; you just have to get used to the different feel. Good leather gloves will give you a better grip and protection from road debris. Ever had a rock or June bug whack you on the knuckle at 70 miles per hour? They also offer good abrasion protection should you have to lay your bike down. What's the first thing you do when you fall? Yep, put your hands out to catch yourself. I don't see people lining up to stick their palms on a grinder — asphalt is no different.

"Riding a bike is supposed to be fun." Wearing the gear doesn't have to decrease the fun factor. If anything, it can and will increase it. Sunburns, road rash, dehydration, hypothermia, flying road debris ... those things aren't fun. The right gear will reduce fatigue, increase comfort, and protect you from the elements. If you get in the habit of wearing the gear, you'll be able to have fun much longer.

"I'm not gonna wear the orange 'I'm picking up garbage' vest." I agree. They aren't my style either. The AFI says you have to wear a jacket or vest that is brightly colored or contrasting and reflective at night. The point here is to get

Mandatory PPE Requirements

- Approved Helmet
- Eye Protection
(Impact resistant goggles, visor, or windscreen)
- Brightly Colored/Contrasting Vest or Jacket
(Reflective at night)
- Long Sleeves
- Long Pants
- Full-Fingered Gloves
- Sturdy Shoes

ally hot days. All that hot air blowing over exposed skin dehydrates and raises — yes raises — your body temp. I know that if you get stuck in



other motorists to see you. The first thing out of the other guy's mouth is "I didn't even see him." There are plenty of options available out there. Many jackets are available in bright colors and have retro-reflective material incorporated. Vests are available with your choice of reflective material, but an orange or yellow vest is usually the most visible and will keep you from becoming a car's doormat!

"They can't make me wear that." Oh really? Sure they can. It comes straight from the AFI. Failure to do so can result in disciplinary action: letter of counseling, letter of reprimand, Article 15, and/or loss of driving privileges. The bottom line: If you wear the uniform, you wear the gear! No one can dispute the fact that wearing PPE decreases injuries and lost time from the work center.

There is a ton of motorcycle-specific gear available to-

day. Riders are no longer restricted to a few choices that all look the same. There are many different styles available in several different materials from leather to Cordura and Kevlar. They are well vented, offer great abrasion resistance, many are fitted with hard armor, and often have reflective material designed right into the product. Stay away from the fashion leather and look for the purpose-made motorcycle gear. You can still look "cool" and be very comfortable and safe while doing it.

I saw a study once that tested the abrasion resistance of blue jeans, Cordura, and leather. At 50 miles per hour it took less than 3 feet to burn through the denim, 20 feet for the Cordura, and a whopping 88 feet for the leather. Let's do some math here. Last spring I hit the ground at about 45 miles per hour and slid for almost 70 feet. I could smell the burning leather, but

didn't get a scratch on me. Had I not been wearing the leathers, I would have had to take a few weeks off work to try to grow back skin that would have been lost after the first few feet. I'd much rather show off a scuffed jacket than scars.

We need to make sure other folks see us and that we have some protection in the event of getting up close and personal with the pavement. As I said, this is a requirement not an option for military members. These requirements apply any time you are on your bike, on or off base. It doesn't have to be as discouraging as some folks make it seem. Wearing good gear will actually increase the comfort and enjoyment of your ride. I don't know anyone that plans to have an accident, but we can plan to be prepared in case we do. Dress for the fall, not the ride. ►

Reprinted Courtesy of Road & Rec, Fall 2001

Just a Routine

Fe

By Maj Frank W. Stepongzi, USAFR, Barksdale AFB, La.

It was a routine ferry flight mission. We were scheduled to fly our B-52 up to a closing base, load up with Advanced Cruise Missiles (ACMs), and fly home.

For this mission, I was the copilot, flight engineer, and the mission commander. While I had never actually flown with ACMs and had only performed one other heavyweight landing in a B-52, I was one of the more experienced instructor pilots in the squadron. Also, I had been previously assigned to our destination base.

The plan was simple: take off and fly home. Fortunately, the aircraft commander and I had planned ahead for all possible contingencies on the return leg. In case of bad weather, we had a reliability tanker nearby and a pre-planned divert base that could handle our missiles.

There were no incidents on the flight up to the base. We then had a couple of days off to enjoy the sites in the area. The return mission went as planned until we were back on the ground at our home base. We flew an instrument landing

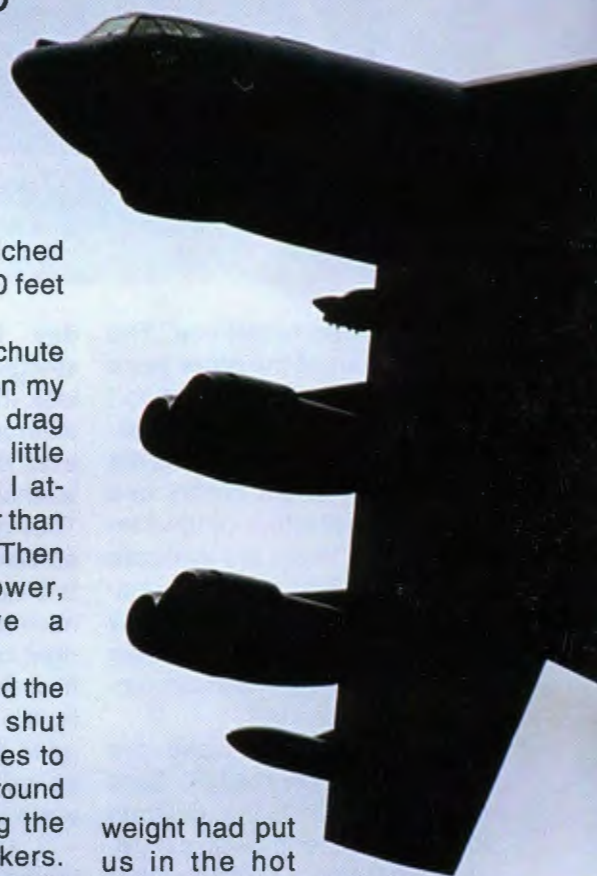
system approach and touched down within the first 1,500 feet of the landing zone.

I deployed the drag chute and felt the familiar tug on my shoulder harness as the drag chute inflated. It was a little weaker than normal, but I attributed that to the heavier than normal landing weight. Then came the call from tower, "Doom 92, you have a streamer!"


I immediately advised the aircraft commander to shut down the outboard engines to help reduce our landing ground run and started checking the distance remaining markers. From our mission planning, we had anticipated a landing ground run of 5,900 feet without the drag chute. As I saw the 5,000-foot remaining marker go by us, I rechecked the airspeed, 107 Knots Indicated Air Speed (KIAS). I applied the brakes, knowing that our airspeed and aircraft

weight had put us in the hot brakes caution zone we had calculated during mission planning. We were only 3 KIAS above the normal zone. I declared an emergency with tower and advised them of our situation.

Still applying brakes as we turned off the runway, I advised the crew to pin their ejection



rry Flight?



seats and plan to abandon the aircraft as soon as we stopped in the rollout hammerhead. The crew acknowledged my call and did exactly as ordered after we came to a stop.

The aircraft commander and I were the last two off the aircraft since we had to shut down the engines and close the fuel valves. I wasn't in a big hurry to get off the aircraft because the charts showed that we were just barely in the caution zone for the brake energy. We were evacuating as a precautionary measure ... simply following procedures.

As I made my way down the crew entry hatch, I could feel the heat on my back from

the forward landing gear

brakes. I had never before felt heat like that from brakes. I didn't take the time to look back. I immediately ran away from the aircraft to where the rest of the crew had formed up. We could see the brakes glowing from the safety of the supervisor of the flying truck. It took almost an hour for the brakes to cool off before the fire department would release the aircraft back to us.

It was determined later that the parachute failure had occurred because the drag chute had not been installed in






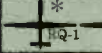
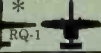


accordance with local technical orders. The brakes were inspected for heat damage and replaced. Fortunately, we had planned ahead with brake energy computations and landing data prior to flight. Had we taxied the aircraft to parking, the brakes would have heated up more and could have erupted into flames, causing extensive damage to aircraft, facilities, and possibly personnel. Bottom line: Any time you are doing something different or unusual, get into the books and have a plan for those things that might go wrong. Fly Safe! ►

Photo by SrA Christina M. Rumsey







FY03 Aircraft

As of April 30, 2003

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

FY03 Ground

As of April 30, 2003

	Fatal	Class A	Class B
8 AF		4	2
9 AF		4	1
12 AF		6	0
DRU's		3	0

FY03 Weapons

As of April 30, 2003

	Class A	Class B
8 AF	0	0
9 AF	0	0
12 AF	0	0
AWFC	0	2

Aircraft Notes

What a welcome relief! After a miserable month of March mishap madness, ACC's flight safety record did a one-eighty, not a single incident of flying foolishness in April. We salute commanders and aircrews alike for their refocused attention to detail and back-to-the-basics of aviating as we've flown, fought, and won. As forces continue reconstitution, we implore all to remain vigilant. Despite no longer jinking real AAA and SAMs, the P_k of the ground is still 1.0, and you and your wingman may still be on a collision course. Go enjoy a baseball game as we strive to extend our "no-hitter" flight safety streak.

Ground Notes

Class A mishaps now total 17 for FY03. There have been 15 fatalities, two permanent total disabilities and one property damage mishap. In FY02 there were 21 fatalities and one permanent total disability. There have been 304 Class C mishaps of which 230 were off duty. In FY02 there were 295 Class C mishaps of which 212 were off duty. Never miss an opportunity to stress on/off-duty safety.

Weapons Notes

This past month we saw an old friend from the past revisit us. A CAP-9 was dropped after the load crew tried to dislodge the missile from the A/C, resulting in a Class D mishap. It is important to follow established procedure when performing all operations. Keep up the fight to make your wing a safe place to work.

Legend

Class A - Permanent Total Disability; Property Damage \$1,000,000 or more
Class B - Permanent Partial Disability; Property Damage between \$200,000 and \$1,000,000
Class C - Lost Workday; Property Damage between \$20,000 and \$200,000
* Non-rate Producing

Symbols for Mishap Aircraft

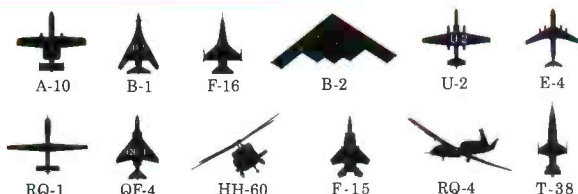




Photo by SSgt Derrick Goode



A crew chief from the 335th Expeditionary Fighter Squadron prepares an F-15E Strike Eagle for a mission at a forward deployed location supporting Operation IRAQI FREEDOM.

