



# The Combat **EDGE**

June 2004

# The Combat Edge

Volume 13 Issue 1,  
ACC SP 91-1

Photo by TSgt Richard Freeland



8

Courtesy Photo



12

Photo by SSgt Verlin Collins



22

Photo by TSgt Ben Bleker



26

## GENERAL HAL M. HORNBERG, COMMANDER

COLONEL CREID K. JOHNSON, DIRECTOR OF SAFETY

### 4 SHIP OF FOOLS

By CW3 Bill Barfknecht,  
Fort Eustis, Va.

### 8 OLD FAITHFUL

By Maj's William Winans,  
Greg Anderson,  
Chuck Bailey,  
Pat McGlade, and  
Lane Humphreys,  
Barksdale AFB, La.

### 12 I LOST MY RIO

By Lt Geoff Vickers

### 22 VA-WOOMPF!

By Bob Van Elsberg,  
Fort Rucker, Ala.

### 26 WARM UP TO WIN!

By SrA Michael D. Brooks,  
Nellis AFB, Nev.

## Departments

### 18 MONTHLY AWARDS

### 30 FLEAGLE

### 31 STATS

Visit us on the web @ [www2.acc.af.mil/combat-edge](http://www2.acc.af.mil/combat-edge)



MAJ ANTON KOMATZ  
EXECUTIVE EDITOR

MAJ WENDY HAMILTON  
EDITOR

Ms. BARBARA TAYLOR  
ASSOCIATE EDITOR

SSGT CARRIE ATWOOD  
PUBLICATIONS DESIGNER

TSgt BEN BLOKER  
ASSOCIATE PHOTO EDITOR  
1ST COMMUNICATIONS SQUADRON

**The Combat Edge** (ISSN 1063-8970) is published monthly by Air Combat Command, HQ ACC/SEM, 175 Sweeney Blvd, Langley AFB VA 23665-2700. Send address changes to the same address.

**DISTRIBUTION:** F. OPR: HQ ACC/SEM. Distribution is based on a ratio of one copy per 10 persons assigned. Air Force units should contact *The Combat Edge* staff to establish or change requirements.

**ANNUAL SUBSCRIPTIONS:** Available to non-DoD readers for \$51.00 (\$71.40 outside the U.S.) from the Superintendent of Documents, PO Box 371954, Pittsburgh PA 15250-7954. All subscription service correspondence should be directed to the Superintendent, not HQ ACC/SEM.

**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: acc.sem@langley.af.mil

The editors reserve the right to edit all manuscripts for readability and good taste.

**DISCLAIMER:** This magazine is an authorized publication for members of the DoD. Contents of *The Combat Edge* are not necessarily the official views of, or endorsed by, the U.S. Government, the DoD, or the United States Air Force. Information contained in any article may not be construed as incriminating under Article 31, UCMJ.

Front Cover: TSgt Ben Bloker



# ACCent on Safety



## SAFETY ... ARE WE THERE YET?

The 101 Critical Days of Summer Campaign just kicked off a few days ago; you recently finished having the second of two COMACC directed "safety days" and by now you most likely feel inundated with all things associated with safety. The question is: are we there yet? The answer is obviously no — we simply can't afford to have a mishap and lose any Airman or ACC family members at any time. The flight, ground, and weapons mishap goal is zero, something we must all strive to achieve.

The next few months will be costly to the command if we lose our focus. We must have involved leaders, ensure our combat and deployment training is up to task, and we must all assume some personal responsibility in making the right risk management decisions. Summer brings visions of well-deserved vacations, reunions of all types, leaves, celebrations, and sports. Let me spend a few lines talking about sports and recreation.

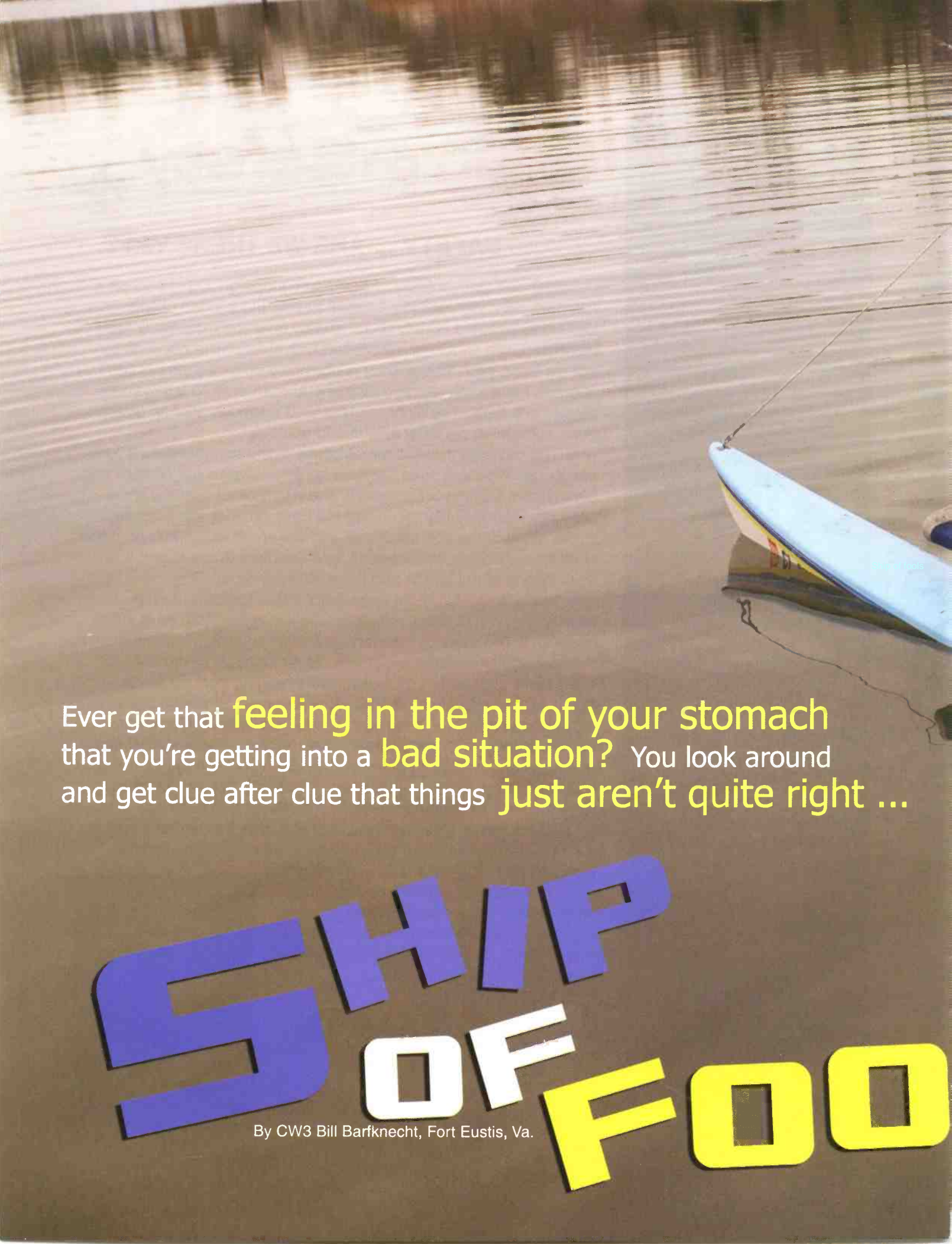
In 2003, the Air Force experienced 223 sports and recreational mishaps. All total, these mishaps resulted in over 230 days in the hospital, 1,755 days on quarters, and over 10 million dollars in medical and associated expenses. In Air Combat Command our losses were profound — 11 lost warriors ranging from an Airman First Class to a Lieutenant Colonel. The common thread seen between these mishaps fall into: speed, inexperience or inadequate training for the equipment, and fatigue. Use personal risk management and appropriate safety gear whether boating, biking, playing a game of softball, or even just driving to these events. Take the time to do things safely.

The summer sports and recreational activities we take part in will help build friendships and memories that can last a lifetime. Don't shorten that lifetime by not being prepared. Safety ... are we there yet? No, not yet. But we can be if we manage our risks and think about safety in a proactive manner. We can "be there" by making safety our Combat Edge.

*Colonel Creid K. Johnson,  
ACC Director of Safety*



Photo by TSgt Ben Bloker

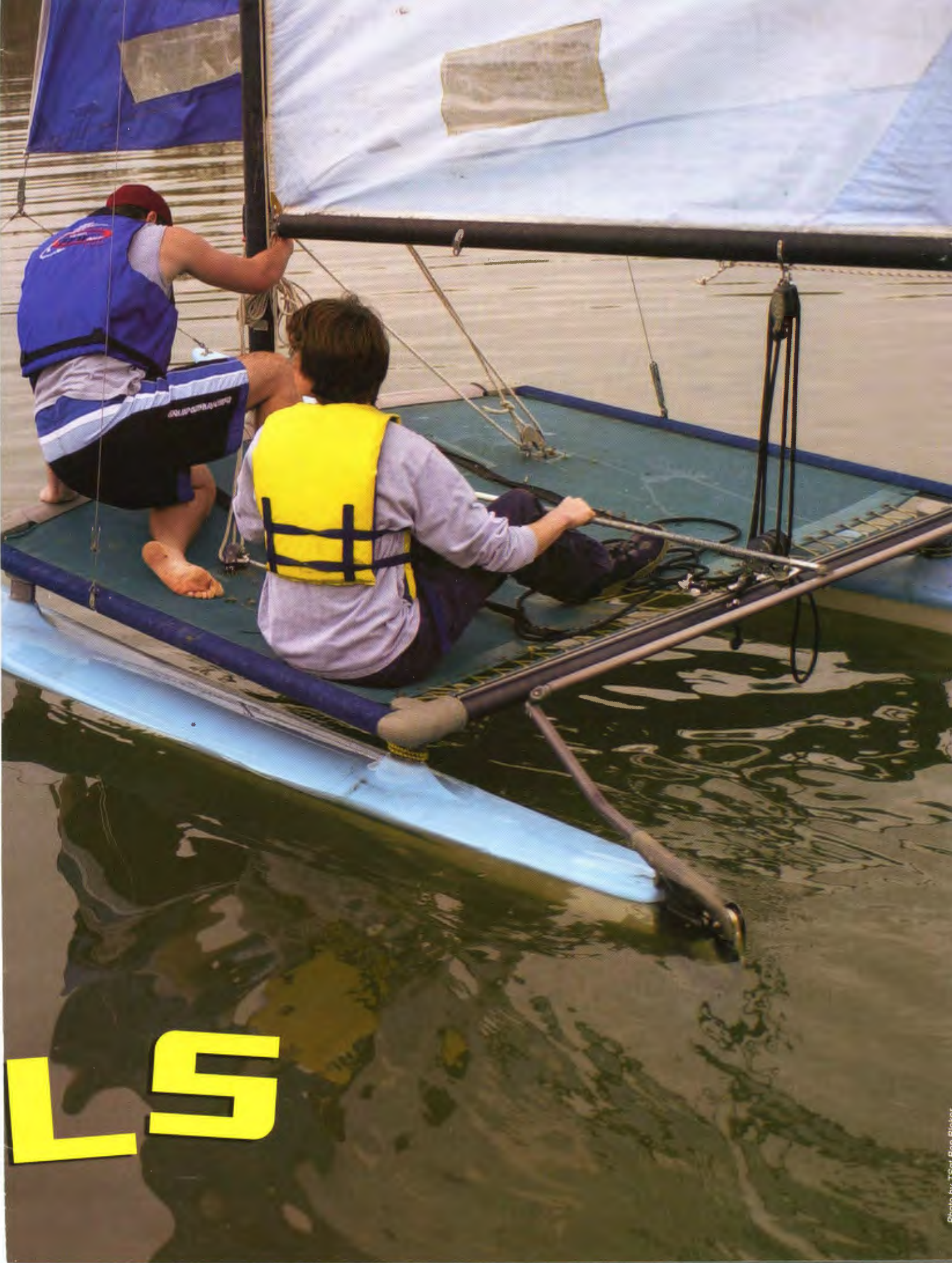


Ever get that **feeling in the pit of your stomach** that you're getting into a **bad situation**? You look around and get clue after clue that things **just aren't quite right ...**

# SHIP OF FOOD

By CW3 Bill Barfknecht, Fort Eustis, Va.





LS



**E**ver get the feeling in the pit of your stomach that you're getting into a bad situation? You look around and get clue after clue that things just aren't "quite right." As the author of this article relates, it's often a good idea to pay attention to those clues.

My friend and I had been planning all week to take his 16-foot catamaran sailing on Santa Rosa Sound, Florida. After I made the 3-hour trip to his house, he greeted me in his driveway and suggested we get going soon because bad weather was forecast. That should have been my **first clue**.

As we packed my trunk, my friend frantically searched for his life jackets, which he hadn't seen since last year. He finally decided that they must be with the boat, so we hit the road. When we got to Santa Rosa, where the boat was being kept on another friend's property, I got my first sight of the "vessel." It was sitting on the beach amongst some weeds. This should have been my **second clue**. It hadn't been on the water in months and my friend probably spent upwards of \$3 a year on maintenance. Even so, the boat looked to be in good shape until I opened one of the watertight compartments and was greeted by an army of carpenter ants. My friend said, "Oh, they do that every year!" I wondered, shouldn't a watertight compartment be 'ant-tight' as well.

We rigged the mast, attached the sails, loaded the cooler, and started to push the catamaran into the water. I asked my friend, "Shouldn't we put something in this drain hole?" He replied, "Oh yeah, I almost forgot!" Then I asked him about the still-missing life jackets. He rummaged through his friend's garage and returned 10 minutes later with a couple of life jackets that looked like something from a 1960s beach party movie. "These will do," he said, as we donned the skimpy life jackets and set out on the water. That should have been my **third clue**.

At first, things went pretty well. We had the wind in our faces, the sun was overhead, and it was turning out to be a great day. When we got to the middle of the sound where the ship-

ping channel cut through, I saw my friend looking around on his "sporty" life jacket. I asked, "What's up?" He said, "I usually bring a whistle so I can get the attention of other vessels if need be. But no big deal, they'll see us." That should have been my **fourth clue**.

As we sailed, he told me about the time the wind was so calm he just drifted with the current, unable to con-

trol where he was going. He'd been stuck for hours a short distance from shore, but couldn't get in because he didn't have a paddle. I looked around and noticed WE didn't have any paddles and mentioned that to him. He said, "Yeah, I was just thinking that myself. But the wind is blowing today and we're close to shore. We'll be OK." That should have been my **fifth clue**.

He told me about the time the wind blew so hard one of the wires supporting the mast broke and the mast fell into the water



Courtesy Photo



As we tacked (zigzagged) across the water, he told me about the time the wind blew so hard one of the wires supporting the mast broke and the mast fell into the water. He drifted in rough seas until a passing boater saw him and towed him to shore. "Not to worry," he said. He assured me the wires were all new, so that wouldn't happen again.

We'd just cleared the shipping channel and started to tack to get back on course. As we came about, I heard a grinding noise and watched the mast lean over and fall into the water. My friend sat there in disbelief as the sails took on water and started to sink.

This was NOT good. We were drifting near the shipping lane without paddles or signaling devices. I also noticed that we seemed to be settling deeper in the water. Apparently the water had found the same hole the ants used to get into the watertight compartment. At least we had life jackets.

We tried to clean up the mess of ropes and sails as we drifted towards the shore. We finally drifted into waist-deep water and dragged the boat onto the beach. I removed the drain plug and water began pouring out. I was right — we'd been sinking!

What did I learn from this? First, we should have checked the boat over closely before setting sail. The mast fell because a piece of hardware failed. Because of the carpenter ants, the boat nearly sank out from under us. Also, we lacked signaling devices and a paddle, which could have been disastrous if one of us had gotten hurt or the weather turned nasty. You should always use a little risk management when you go boating. You should also enroll in a boater's safety course through your Morale, Welfare and Recreation (MWR) office or local Coast Guard Auxiliary. Don't do what I did, learn from my mistakes and be safe! ►

## Boating Tips

- Have your craft inspected annually, and routinely check the boat yourself. You also can call the U.S. Coast Guard Auxiliary for a free safety inspection.
- Before setting out, get the latest weather forecast for your area. The National Oceanic and Atmospheric Administration broadcasts reports regularly to keep you updated. Take your radio with you and monitor the forecast.
- Know your boat's handling characteristics and don't go beyond your skills.
- Develop a "float plan" before sailing and tell someone where you will be going.
- Don't drink and boat. The lack of lanes and traffic signals on the water can make boating even more difficult than driving a car.
- In small boats, everyone should remain seated while the boat is in motion. Keep loads spread evenly and as low in the boat as possible.
- Wear your personal flotation device (life jacket) at all times — you may not have time to put it on during a sudden emergency.
- Take a portable communication device for emergencies.
- Carry additional safety equipment such as a paddle or oars, first-aid kit, bailer bucket or scoop, anchor and line, reserve fuel, and tools and spare parts.
- When boating at night, make sure you have a light that can be seen for 2 miles.
- Maintain a clear, unobstructed view ahead at all times. Scan the area ahead on either side for any dangers.

*For more information on boating safety check out the following Websites:*  
[www.boatsafe.com](http://www.boatsafe.com), [www.uscgboating.org](http://www.uscgboating.org), [www.boatus.org/onlinecourse](http://www.boatus.org/onlinecourse)

# OLD FAITHFUL

By Maj's William Winans, Greg Anderson, Chuck Bailey,  
Pat McGlade and Lane Humphreys, Barksdale AFB, La.

The **Big Ugly** has been  
around for 50 years  
and is slated to fly for  
another 40 ....

Old Faithful The big ugly has been around for 50 years and is slated to fly for another 40.







0

Old faithful ... it's the best way to describe Mr. Boeing's venerable B-52. The Big Ugly has been flying for over 50 years and slated to fly for another 40. Although technological advances have given the Combat Air Force newer assets such as the B-2 and the F/A-22, the B-52 is and will be an integral part of our arsenal for another generation. It is obvious to all those who watch CNN or study history that the

Buff brings powerful elements of firepower and psychological warfare to bear upon the enemy. Those fortunate enough to fly the B-52 are reassured to know that not only will you get the job done, but the old lady will get you home.

On 30 March 2003, we took off from the Forward Operating Location (FOL) known as "Dogwood 30" on an interdiction sortie over central Iraq. Our crew consisted of senior instructors; four of the five were former Fly-

ing Training Unit instructors, three of which were USAF Weapons School Graduates. Although this was our first Operation IRAQI FREEDOM combat mission, we were all intimately familiar with the Area of Operation (AOR). Combined, we had over 9,000 B-52 and 700 combat hours experience in the airplane. On this day, we planned, briefed, and arrived at the jet to preflight our 27 MK-82s and 12 GBU-31V1 Joint Direct Attack Munitions (JDAMs). We were to drop on our JDAM targets in Baghdad, and then we were to roll into an alert interdiction mission with our 500-pound MK-82s.

The aircraft maintenance forms identified the #7 engine was shut down on the previous flight, and the Offensive Avionics System (OAS), our navigation and bombing computer, experienced a Radar Interface Unit problem. Maintenance checked out both systems and found no problems. Both of these pieces of information became very important later.

As with most safety incidents, the chain started with something exceptionally simple. Following the first of three planned air refuelings, the #7 engine flamed out. (It was later determined the fuel control unit failed.) We attempted a restart but we were unsuccessful. The loss of this particular engine resulted in a loss of one of our four generators and one of the hydraulic pumps. The remaining generators still

The B-52 is and will be  
an integral part of our arsenal  
for another generation



Photo by TSgt Richard Freeland



met our go/no-go criteria with virtually no limitations to the electrical system. Since the engine did not seize, windmilling hydraulics provided ample hydraulic pressure to the outboard spoilers, minimizing the control problem of an outboard engine being shut down. The loss of thrust provided the first opportunity for the crew to implement Operational Risk Management (ORM). In addition to passing the official Mission Equipment Subsystems List for employment, we also gave it our ORM sanity check. The Buff has outstanding redundant capabilities with only small limitations. With seven engines still providing full thrust, to drop 12 externally carried GBU31V1 JDAMs from over 35,000 feet, the thrust-to-drag ratio is greatly decreased. In light of this, the crew identified and discussed several factors before pressing with the attack. After addressing all concerns, and identifying ways to mitigate their possible impacts, the crew unanimously elected to continue. After the second air refueling, we entered the AOR. As we checked in with AWACS, the controller informed us our Suppression of Enemy Air Defense (SEAD) package, of EA-6Bs and F-16CJs, was cancelled.

Once again the crew ran the ORM decision matrix. The expertise and experience of our Electronic Warfare Officer, the capabilities of the Buff's electronic suite against the anticipated threats, and the lack of previous radar engagements since the war began drove our decision to press on.

Through our Night Vision Goggles and low-light television system, it seemed like the Fourth of July outside, because there were tracers everywhere below us. We completed our checklists

on the way to the JDAM targets, which were southeast of Baghdad International Airport. The Initial Point to target run-in was very quiet. Everyone knew what to do, working synergistically as a crew. The navigator updated the headings to the JDAMs Launch Acceptability Region, while the pilots identified and maneuvered for missiles

run, briefed it, and turned to prosecute. Since the forms had a write-up about a Radar Interface Unit problem, the radar navigator knew the OAS might not automatically release our weapons. The telltale sign is the bomb doors won't open when they should. With this in mind, he watched the doors light like a hawk. Sure enough, the doors didn't open.

## A plane like the B-52 can get the combat mission done successfully and without compromising safety

and anti-aircraft artillery off our 9 o'clock position. The only sound came from jet noise and the constant strike frequency radio chatter.

On the bomb run, we defeated multiple ballistic surface to air missile launches while releasing all 12 JDAMs on the Republican Guard Medina division. As the offense team monitored the threat rings we were flying through, the copilot saw a missile at our 4 o'clock. He saw the booster, and he saw that it was turning toward us. He then called out a second missile. The Electronic Warfare Officer said, "We're being targeted by an SA-3." This was where pre-strike analysis of the 7-engine performance characteristics paid huge dividends. To max perform the airplane, we used a larger altitude block than normal, maneuvering in the vertical and the horizontal. There's only so much you can do with a 2-G rated airplane.

After defeating the threat, we rolled into our alert interdiction close air patrol area and were directed via 9-line to deliver our internal load on an ammo storage area. Once we plotted the coordinates, we saw the target was back inside the Baghdad threat complex. We fragged out our bomb

He opened the doors manually and grabbed the pickle switch. When the bombing system read zero seconds to go, he pickled off the bombs. Again, proper coordination among the crew and anticipation of potential malfunctions ensured flawless execution.

As we headed south for our last air refueling, the #8 engine oil pressure dropped to zero forcing us to shut it down. We were now 12 hours into the sortie and facing 2-engine out, night air refueling in the weather. Despite this, we performed the 6-engine air refueling taking on the 100,000 pounds of fuel required to recover at the FOL.

Post air refueling, we ran through the required emergency procedures and reviewed the flight control and thrust considerations for landing a 6-engine aircraft. Comfortable with our roles and responsibilities regarding the landing, we coordinated for the emergency landing, and at sometime past the 15-hour point, landed uneventfully. Our memorable 16-hour combat mission highlighted how ORM, crew coordination, and a plane like the B-52 can get the combat mission done successfully and without compromising safety. ▶





# I lost my RIO

*a passenger on an incentive  
ride ejects from an inverted F-14*

By Lt Geoff Vickers







**m**y squadron and air wing were detached to Naval Air Station Fallon, Nevada, for strike training. Most of us attended lectures all day, but I was tasked with giving the battle-group air warfare commander an orientation flight in the F-14D. As skipper of the cruiser in charge of the battle group's air defenses, he had been spending time with the air wing to better understand how we conduct our missions. He had observed a number of the strike events through the tactical air combat training system (TACTS) replays, and he had flown with the E-2C and EA-6B squadrons. He was proud that the Prowler guys hadn't been able to make him sick.

My job was to demonstrate the Tomcat's performance and tactical capabilities. Though this flight was my first without a qualified radar-intercept officer (RIO) in the back seat, I had flown with a number of aviators who had very little Tomcat experience before. The captain arrived at the squadron a half-hour before the brief to receive his cockpit-orientation lecture and ejection-seat checkout. Once in the ready room, we briefed the flight with our wingman. I covered the administrative and tactical pro-

I continued the brief and told the captain we would do a performance demo and a couple of intercepts, followed by tanking from an S-3. I told him if, at any point, he felt uncomfortable, we would stop whatever we were doing, roll wings level, and take it easy. I was determined to avoid the temptation to intentionally make him sick and uncomfortable.

The start, taxi, and takeoff were normal. We joined with our lead and did the standard clean-and-dry checks. We pressed into the working area and assumed a defensive combat-spread formation in preparation for the G-awareness maneuver. I told him what was happening, and he seemed to remember the sequence of events from the brief. After we completed the checks, I asked him, "Are you ready for the inverted check? Do you have everything stowed?"

"All set" was the last thing I heard him say.

I checked the airspeed and confirmed it was above the 300 knots recommended to do the check, and I rolled the aircraft inverted. I decided not to really put on a lot of negative G and unloaded to about .3 to .5 negative Gs — just enough to make any-

thing float that wasn't stowed properly. If he was uncomfortable in such a benign maneuver, it would be

better to find out then, rather than when we were racing toward the earth during a radar-missile defense.

As I started to push on the stick, I heard a loud pop, followed by a roar. The cockpit filled with smoke, and we suddenly lost cabin pressure. I first thought a catastrophic environmental control system (ECS) had failed. I said to myself, "This is new. I've never even heard of something like this happening." Time compression turned the next few seconds into an eternity. I knew the first thing I had to do was to roll the jet upright and

assess the situation. About 3 seconds after the first indication of a problem, I had the jet upright and knew exactly what had happened.

I transmitted, "Lion 52. Emergency, my RIO just ejected." I was yelling into the mic, thinking I would have to make all the calls in the blind, because I didn't expect to be able to communicate clearly with all the wind noise from flying at 320 knots without a canopy.

As I turned the jet to try and get a visual of my wayward passenger, Desert Control asked, "Understand your wingman ejected?"

"Negative, my RIO ejected. I'm still flying the plane."

"OK. Understand your RIO ejected. You're flying the plane, and you're OK?" I almost said I was far from OK, but I just told them I was all right, except I was flying a convertible. I was relieved to see a good parachute below me, and I passed this info to Desert Control. Very quickly after the emergency call, an FA-18 pilot from the Naval Strike and Air Warfare Center, who also was in the area, announced he would take over as the on-scene commander of the search-and-rescue (SAR) effort.

I told my wingman to pass the location of the captain because I could not change any of my displays. Once my wingman started to pass the location, I started dumping gas and put the needle on the nose back to NAS Fallon. One of our air wing SH-60 helicopters was in the area and responded, along with another chopper. The captain was recovered almost immediately and transported to the local hospital for treatment and evaluation.

The only F-14D boldface procedures for a canopy problem include placing the canopy handle in "boost close" position and then moving the command eject lever to "pilot." Obviously, the canopy was already gone, so that lever action didn't apply, and, if the command eject lever

**I almost said I was far from OK,  
but I just told them I was all right,  
except I was flying a convertible**

cedures in accordance with our squadron's standard operating procedures (SOP).

I told the captain that after the G-awareness maneuver, we would do a quick inverted check to verify cockpit security. Looking back, I should have recognized his anxiety when he mocked me and said, "Just a quick inverted check?" then laughed. I didn't realize hanging upside down with nothing but glass and 11,000 feet of air separating you from the desert floor might not be the most comfortable situation in the world for a surface warfare officer.





Courtesy Photo

wasn't already in "pilot" as briefed, I also would have been ejected.

I slowed the aircraft and lowered my seat because that's what I remembered from the rest of the steps in the checklist. However, after sitting at eye-level with my multi-function display for about 30 seconds, I thought it would be more prudent to see outside, so I raised my seat. Slowing the aircraft had little effect on the windblast, but, as long as I leaned forward, the wind hit only my shoulders. Because it was very cold at altitude, I decided to return quickly to base, but I needed to watch my airspeed since the ejection had occurred.

The Pocket Checklist (PCL) says to fly less than 200 knots and 15,000 feet and to complete a controllability check for the loss of the canopy, but I never pulled out my PCL to reference it. I figured with the way my day was going, I'd probably just drop my PCL down an intake and complicate my problems. In retrospect, I should have requested my wingman break out his checklist and talk me through the steps. Though this practice of having a wingman assist is common in single-seat communities, Tomcat crews tend to forget this coordination technique is a viable option. I did the controllability check, and I directed my wingman to check for damage to the vertical stabilizers — she found none. The faster I got on deck, the faster I would get warm.

I slowed to approach speed in 10-knot increments at about 3,000 feet AGL and had no problems handling the jet. As I approached the field, I was surprised at how quiet it got. The noise was only slightly louder than the normal ECS roar in the Tomcat. I'll admit I felt silly saying the landing checklist over the ICS when no one else was in the cockpit, but I didn't want to risk breaking my standard habit patterns. The landing was uneventful, and when I pulled back into the line, I was surprised to find how many people had come out to see the spectacle. The magnitude of the situation finally set in when my skipper gave me a hug after I got out of the jet.

The captain and I were very fortunate; all of the ejection and aviation life support systems (ALSS) equipment functioned as expected. Our life support techs had taken the time to properly fit the captain, using components from three different sets of flight gear. This caused a problem after the mishap — getting everyone's gear replaced — but it renewed my faith in our escape systems. A 48-year-old man ejected from the jet when it was inverted, at negative .5 Gs, at 320 knots, and the only injuries he had were two minor cuts to his face.

After talking to the captain at the O'Club later that night, I realized I could have briefed ele-

ments of the flight better. Though I covered all of the details, I didn't fully consider his perspective. He said he didn't know where to put his hands. Consequently, he just left them in loosely clenched fists on his lap, about 2 inches away from the ejection handle. It never occurred to me that someone would not know what to do with his hands. Obviously, I fly with the stick and throttle in my hands 95 percent of the flight, but I failed to consider his situation.

The mishap board surmised that, during the inverted maneuver, he must have flinched when he slightly rose out of the seat and pulled the ejection handle. Now, before any brief, I try to place myself in the other person's shoes and imagine what the flight will be like for them. Whether it is the person who never has flown a tactical aircraft before or just the new pilot who has never flown with Night Vision Goggles, remembering what it was like when I was unfamiliar with the environment will prevent this type of mishap from recurring. ►

**Editor's note:** Incentive rides are a great way to reward fellow Airmen and to give civic leaders and the press a better understanding and appreciation of what the Air Force provides. ACC has had several minor ground mishaps (lost canopies) occur in the past during incentive rides, but thankfully nothing of this magnitude. Aircraft operations may be second nature to aircrew members, but not to incentive passengers, so put yourself in their shoes and brief accordingly to make every incentive ride a safe and memorable experience. Reprinted Courtesy of the Naval Safety Center.



# eye on *Safety*



## **The Set Up**

SOUTH CAROLINA ANG --  
TSgt Ken Bass helps assemble a  
mobile tower during a field exercise

*Photo by SMSgt Edward Snyder*





## Scanning the Horizon

SOUTHWEST ASIA--  
SrA James McGregor scans the horizon for potential threats, preparing for a convoy operation

*Photo by Capt Tom Knowles*



## Slice and Dice

ROYAL AIR FORCE, ENGLAND--  
A1C Miranda Mikkelsen slices sheets of aluminum on a square sheet

*Photo by A1C Franklin J. Perkins*



# MONTHLY AWARD WINNERS

## Aircrew Safety

Award of Distinction

After completing a fighter intercept exercise, Doom 98 returned to Barksdale AFB for pattern activity. While on the go from the first instrument approach, the pilots noted a low oil pressure light on the #8 engine, along with a low oil pressure gauge indication. The crew requested direct to the high penetration holding fix to run emergency checklists. The #8 engine was shut down IAW with 1B-52H-1 procedures, and the copilot calculated six-engine landing data (assuming failure of another engine as a worse case). The crew continued to hold while awaiting confirmation of their six-engine performance data with the duty instructor pilot and to receive permission to penetrate from the operations group commander. Upon receiving final approval, the crew executed an uneventful high penetration until lowering the landing gear, at which time the left tip gear did not indicate down. Recycling the landing

gear still did not correct the problem. The aircraft commander executed a go-around, left the landing gear extended, and entered the visual pattern. Meanwhile, the copilot referenced the landing gear failure to extend checklist, while the navigator team backed him up. The aircraft commander directed the EWO to pull the unaffected gear circuit breakers IAW 1B-52H-1 procedures. The copilot recycled the landing gear handle, and the circuit breakers were reset; but the left tip gear still indicated up. The crew coordinated with the tower to make a low approach to get visual confirmation of the gear position, which resulted in confirmation of the gear-up condition. Remaining in the visual pattern, the crew was finally able to lower the left tip gear using the landing gear emergency switch. The aircraft commander then accomplished an uneventful seven-engine landing. Faced with compound emergencies, the crew of Doom 98 was able to safely recover their aircraft by using good crew resource management procedures. The smooth and timely application of the proper emergency procedures saved lives and a valuable national resource.

**Lt Col Anthony Correro, Capt Robert Bender, 1Lt Robert Lamontagne,  
1Lt Chris Cain, 1Lt Steve Wilson, 96th Bomb Sqdn.,  
2nd Bomb Wing, Barksdale AFB, Louisiana**



## Flight Line Safety

Award of Distinction

The following incident occurred while A1C Stangle and A1C Dahlke were performing 100-hour engine inspections on A-10A aircraft 80-0282. After completing the servicing and preliminary inspection items, they requested SSgt Gibbs motor and run the engines to complete generator operational checks and engine oil level checks. SSgt Gibbs motored both engines without incident and then called Pope Ground Control for engine run clearance. Upon receiving clearance, he started the number one engine without incident and noted all indications were normal to include the operation of the engine driven generator. During the attempted start of the number two engine, A1C Stangle observed flames in the tail pipe and immediately instructed SSgt Gibbs to motor the engine to extinguish the fire. While motoring

the engine, SSgt Gibbs alertly declared a ground emergency and notified the Fire Department through ground control. While waiting for the emergency response team, SSgt Gibbs continued to execute emergency procedures. When the flames had not subsided after 1 1/2 minutes of motoring, A1C Stangle discharged a fire extinguisher down the engine intake while SSgt Gibbs continued to motor for a total of 3 minutes. When the flight line expeditor, TSgt Murray, observed fuel burning in the tail pipe, he immediately responded to assist A1C Stangle by discharging a second fire bottle into the exhaust. Simultaneously, A1C Dahlke repositioned a third fire bottle and discharged it down the intake in an effort to smother the flames. The fire department promptly arrived on scene and took over fire fighting duties to extinguish the remaining flames without further mishap. The quick and decisive actions of these maintainers averted a possible catastrophic engine fire. Without their prompt and skillful actions, this incident could have resulted in a loss of life or a valuable combat aircraft.

**A1C Nathan Stangle, A1C Larisa Dahlke, SSgt Wayne Gibbs,  
TSgt James W. Murray III, 23rd Aircraft Maint. Sqdn.,  
23rd Fighter Group, Pope AFB, North Carolina**





# Ground Safety

Award of Distinction

**S**rA Kavanaugh is a true professional that consistently epitomizes "Safety First" in every aspect of his work. In the month of February he proposed, planned, and spearheaded a field training exercise encompassing the deployment and activation of two AN/TRC-170 Microwave Radio Terminals. SrA Kavanaugh directed the inventory and mobilization of 14 tons of tactical communications equipment and support items. This included prior coordination with the 32 CCS Power Production work center for preparation, transportation, and operation of tactical power generator systems. He also developed a convoy schedule covering details such as vehicle registration numbers, vehicle order, driver assignments, show time, departure time, and planned travel routes. SrA Kavanaugh personally checked each convoy vehicle to ensure 100 percent safety compliance, proper attachment of towed loads, and safe securing of cargo. He then contacted the 32 CCS Quality Assurance office to request an inspection of the convoy. Prior to departure, he delivered a thorough safety briefing covering the safe operation of tactical vehicles/towed loads, personnel protective equipment, safe following distances, "hot brake" checks, and travel routes

and final destination. SrA Kavanaugh's careful planning and attention to detail resulted in zero vehicle mishaps or personnel injuries for 5 vehicles, 4 towed loads, and 15 personnel. Upon arrival at the training site, SrA Kavanaugh confirmed the safe/complete arrival of his entire team and delivered another safety briefing that included safe setup procedures, proper lifting techniques, and personnel protective equipment. His team set up 2 communications vans, 4 microwave antennas, a tent, and exterior lighting. During the week-long exercise, SrA Kavanaugh directed and oversaw in-depth equipment training for all personnel. In addition, he seized the opportunity to provide tactical generator training for five recently assigned technicians. At the conclusion of the training exercise, SrA Kavanaugh supervised the deactivation, tear down, and redeployment of the entire site. He provided personnel with appropriate safety briefings prior to deactivation and convoy departure. Again, no mishaps or injuries were experienced — a direct result of SrA Kavanaugh's preparation and supervision. The entire field training exercise was a tremendous success; even more so, due to the fact that no personnel were injured and no equipment was damaged, ensuring these critical resources are available to complete their mission of delivering combat communications — "Anytime, Anywhere!"

**SrA Terence Kavanaugh, 32nd Combat Communications Sqdn.,  
3rd Combat Communications Group, Tinker AFB, Oklahoma**



# Pilot Safety

Award of Distinction

**M**aj Carter stepped as #3 of a four ship of F-15Cs to fly a LOWAT requal mission. Due to a gear retraction failure on takeoff, he elected to stay in the radar pattern to burn down fuel prior to landing while the flight lead pressed with the rest of the formation on the briefed mission. While on radar downwind, and with the gear down and locked, Maj Carter entered IMC conditions with associated airframe and engine icing. At this time both his primary and standby airspeed indicators went to zero due to a pitot probe heat failure. The weather had rapidly degraded below VFR minimums, so Maj

Carter declared an emergency and started to coordinate a rejoin with another aircraft while simultaneously climbing through 23,000' of solid weather using known pitch, power, and Angle of Attack settings. During the climb he was faced with degraded aircraft handling qualities as the Roll CAS dropped off line several times and the Pitch Ratio was scheduling incorrectly due to erroneous inputs from the failed pitot probe. Once in clear airspace he was able to rejoin with another aircraft who led him back through the weather to a flawless straight-in approach and landing. Maj Carter's superb instrument flying skills, extensive systems knowledge and smart decision making allowed him to safely recover a severely crippled aircraft and preserve a valuable combat asset.

**Maj Bret A. Carter, 1st Operations Support Sqdn.,  
1st Fighter Wing, Langley AFB, Virginia**





# MONTHLY AWARD WINNERS

## Weapons Safety

Award of Distinction

The 1st Fighter Wing conducted a combined Phase I and II Self Initiated Operational Readiness Exercise (SIORE) from 19-26 Feb 04. TSgt Jarvis participated as a Wing Exercise Evaluation Team (WEET) member and had constant oversight of the exercise play area. During the 3-day Phase II, he performed constant surveillance of continuous explosive operations among three participating fighter squadrons simulating over 100 air-to-air missile expenditures daily. On four different occasions, TSgt Jarvis observed the placement of MJU-7 flare/RR-180 chaff modules in empty aircraft parking spots within 12-24 inches of the vehicle driving lane. On every occasion he immediately notified the nearest weapons load crew and expeditor to have the chaff and flare

modules moved to the nearest F-15 and placed under the nose of the aircraft as dictated by Wing policy. TSgt Jarvis also contacted the appropriate flight line supervisors and directed that they investigate the procedural errors and take corrective actions to prevent recurrence. His rapid and effective intervention prevented a possible mishap by eliminating the key factors that resulted in three mishaps between FY01 and FY03 caused by a fuel truck filled with JP-8 jet fuel running over a loaded flare module. While none of the flares ignited in the previous incidents, the potential damage caused by 15 MJU-7 flares burning at 5,000 degrees Fahrenheit could have caused severe injuries to the driver and flight line personnel along with destruction of the fuel truck and damage to nearby F-15 aircraft. TSgt Jarvis' initiative, quick actions, and attention to detail eliminated several potentially catastrophic situations while preserving invaluable lives and scarce USAF resources.



TSgt Jay L. Jarvis, 1st Fighter Wing, Langley AFB, Virginia

## Unit Safety

Award of Distinction

The 32 CCS managed to safely navigate through multiple rocket/mortar/small arms attacks at a deployed base in Iraq, a squadron field training exercise, and a group-wide evaluated exercise — all with zero mishaps. During the Operation IRAQI FREEDOM deployment, 32 CCS personnel helped the deployed base commander in Iraq establish rigorous command and control procedures in the event of hostile enemy activity. These Command and Control (C2) measures proved invaluable to the base commander when the base experienced numerous mortar, rocket, and small arms attacks, many in very close proximity to 32 CCS troops. During these mortar and rocket attacks, and at all other times, members of the 32 CCS were very careful to adhere to all safety and Force Protection precautions. Their C2 during these attacks was commendable. They immediately accounted for personnel while ensuring 100 percent worldwide base comm connectivity to continue the AF mission in Iraq. In addition, the unit planned and executed a week-long field training exercise encompassing the deployment and activation of two AN/TRC-170 Microwave Radio Terminals. Highly professional junior enlisted troops directed the inventory and mobilization of 14 tons of tactical communications equipment and support items. This total package was comprised of 5 vehicles, 4

towed loads, and 15 personnel. The team checked each convoy vehicle to ensure 100 percent safety compliance, proper attachment of towed loads, and safe securing of cargo. To double-check safety procedures they also had all items verified by the squadron Quality Assurance office before the convoy rolled out. Once at the training site, the team confirmed the safe and complete arrival of the entire team at the group Operations Center and conducted another safety briefing that included safe setup procedures, proper lifting techniques, and personal protective equipment. They also deployed required hazardous material containment barriers around the power production equipment to contain any possible fuel spills, established safe clear zones for the radiation hazard area, and devised nighttime security plans to protect personnel and equipment. After 104 hours of operation there were no equipment or personnel safety incidents. This event was even more spectacular since all personnel involved were E-4 or below, showing that safety is drilled and adhered to by the most junior troops in the squadron. Finally, the unit dedicated 4 personnel as semi-truck drivers who assisted in the preparation and transport of over 35 tons of base operating support equipment for 95 personnel during an evaluated group exercise. Two days prior to the exercise, they maximized use of spotters and safety observers while loading the equipment with a 5-ton forklift, onto separate 40 ft flatbed trailers. Logging in over 640 miles the first 2 days without incident, they put in another nearly 800 miles on the back end hauling equipment and vehicles to and from the exercise area. Personnel were "Out in Front" while completing over 1,200 miles to deliver required supplies, and proved good planning and attention to detail provide the proper keys to safety.

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



# Crew Chief Safety

Award of Distinction

While working swing shift in the Phase Dock, SSgt Pyle was assigned to conduct a power-on check on an F-15C with another worker. SSgt Pyle was working on the ground while the other worker was in the cockpit, activating the systems that needed to be checked while SSgt Pyle verified that they worked correctly. After a thorough review of the procedures and checklists, they began run-

ning through the operational checks required to finish the check. Part of the procedure required them to lower and raise the tail hook to verify correct operation. The tail hook on an F-15 weighs over 60 pounds. When unlocks are released by the pilot, it lowers to full extension under gravity power in less than 1 second. Just prior to lowering the tail hook, SSgt Pyle noticed that another Airman had wandered underneath the jet and was directly in the path of the tail hook. SSgt Pyle quickly ran and pulled the other Airman to safety. His attentiveness and quick thinking prevented a serious injury and are a great example to his coworkers.



**SSgt William C. Pyle, 1st Equipment Maint. Sqdn.,  
1st Fighter Wing, Langley AFB, Virginia**

## ACC Safety Salutes Superior Performance



**Lt Col Vincent Quinn,  
Capt Shelly Mendieta,**  
335 FS, 4 FW  
Seymour Johnson AFB, N.C.

**Lt Col Robert Schwarze,**  
Commander,  
68 EWS, 53 WG  
Eglin AFB, Fla.

**Mr. Duane E. Chilton,**  
Weather Forecaster  
2 OSS, 2 BW  
Barksdale AFB, La.

**SSgt Jason Crocker,**  
Dedicated Crew Chief  
**A1C Joseph Katzur,**  
**A1C Kyle Johnson,**  
**A1C Christopher Fenton,**  
F-15E Avionics Specialists  
4 AMS, 4 FW  
Seymour Johnson AFB, N.C.

**TSgt Denis McMonagle,**  
NCOIC, Quality Assurance  
32 CCS, 3 CCG  
Tinker AFB, Okla.

**Major Larry Hunter,  
Capt William Betts,**  
F-16CG Pilots  
524 FS, 27 FW  
Cannon AFB, N.M.

**Capt Langdon Root,**  
F-16 Pilot  
421 FS, 388 FW  
Hill AFB, Utah

**SSgt Charles Anderson,**  
Assistant NCOIC Traffic Section  
1 SFS, 1 FW  
Langley AFB, Va.





Va- WOOD





MPF!

By Bob Van Elsberg, Fort Rucker, Ala.  
Photos by SSgt Verlin Collins, Langley AFB, Va.

Barbecuing  
101  
How I  
nearly  
burnt  
the forest  
down!



It was getting toward late afternoon and the shadows were lengthening as we car-camped alongside a logging road near Lichtenstein, Germany. I was the chef for dinner and could almost taste the spare ribs we had planned for that evening. I had a brand-new fold-up barbecue that I had bought for our camping trips and was ready to get started.

the siphon tube into the tank. This would require skill and delicate timing, as the taste of gasoline tends to ruin the palate before dinner. However, in no time flat, I had filled a small glass bottle my wife had given me. I walked triumphantly to the barbecue, proud that my resourcefulness had once again saved the day.

I liberally dribbled the gas onto the pile of briquettes. Did I say "lib-

blaze subsided enough for me to get near my barbecue, I saw the red paint was bubbling and peeling off. I guess I'd exceeded the manufacturer's specifications for cooking temperatures.

Needless to say, that was the last time I used gasoline to start a barbecue. Fortunately, I didn't burn down the forest, but I did learn that gasoline is not a suitable substitute for charcoal lighter fluid. However, I'm neither the first nor the last person to try this. A friend of mine once tried using gasoline to get his smoker started. When he tossed a match onto the gas-soaked coals, the resulting explosion almost sent the lid into orbit!

The good news is that you don't have to make the same mistakes we did. Here are some tips to help you keep from barbecuing more than your dinner. ►

I had the barbecue. I had the matches. I had the briquettes. But I forgot to bring the lighter fluid! No problem. Being a resourceful Army troop, I could "improvise." So I asked myself, "How can I get these briquettes going? What other flammable liquid do I have available?"

My eyes fell on the gas cap of our German-made Taunus station wagon and the answer came like a bolt out of the blue—"Hmm...there's plenty of flammable liquid in the gas tank!" And lucky me, I just happened to have a section of rubber hose in the car.

Not one to waste time, I unscrewed the gas cap and slipped

erally?" I was now late getting started with my cooking and the logic of it all seemed simple enough. If more gas makes the car run faster, maybe more gas will make the briquettes burn faster. Still, being somewhat cautious, I waited a couple of minutes before striking a wooden match and tossing it onto the barbecue.

"VA-WOOMPFI!" — the explosion and fireball were breathtaking! The column of fire erupting from my grill reminded me of an F-15 taking off in full afterburner! I looked up and saw the flames dancing dangerously close to some tree limbs above. When the





# Barbecuing Tips

Barbecuing Tips

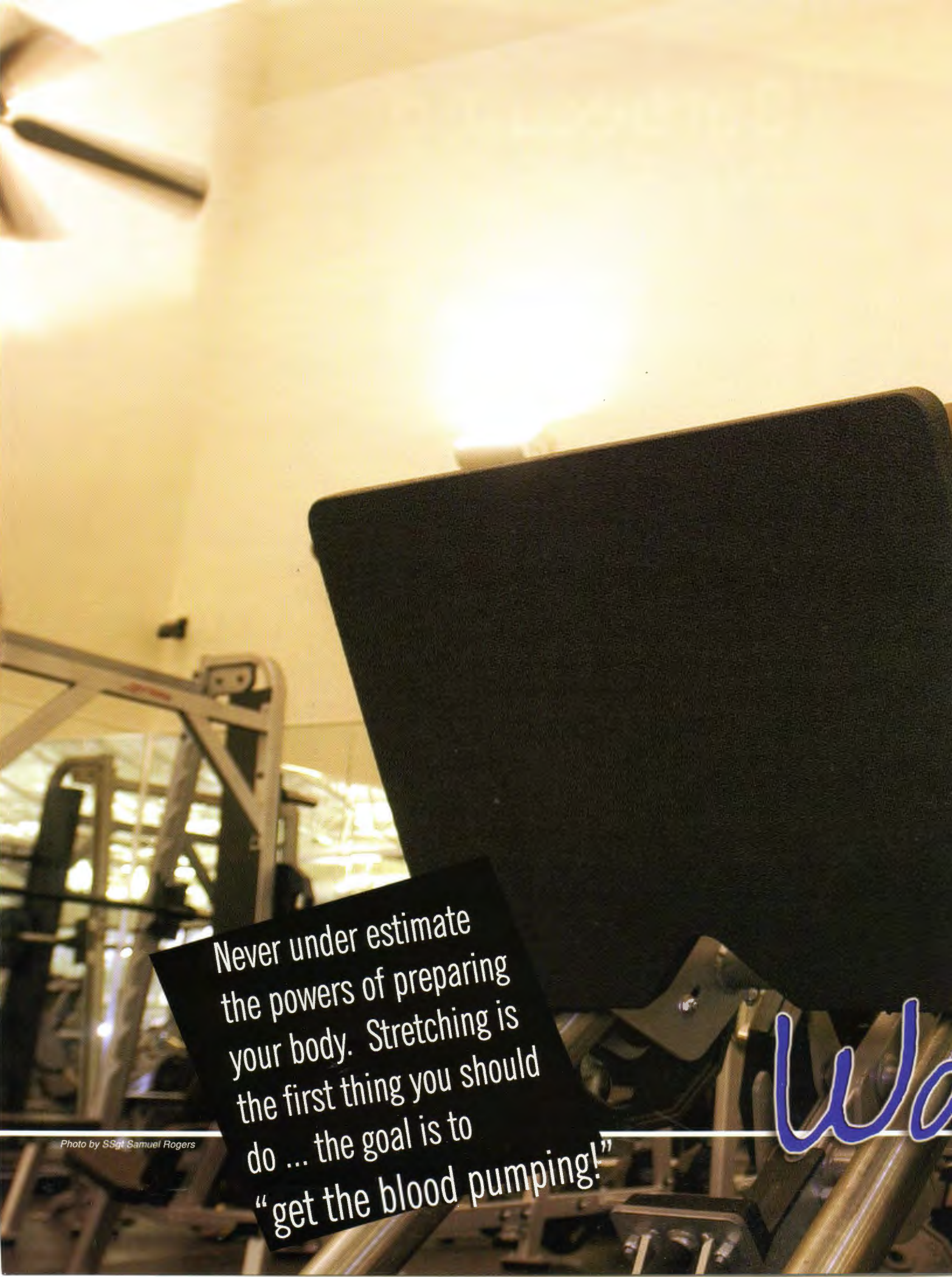
## Traditional Briquette Grills:

- Read and follow the manufacturer's instructions for your grill.
- Place the grill in an open area outdoors. Keep it away from buildings, shrubbery, and dry vegetation — 10 feet is a good measure. Also, make sure it's not in the way of pedestrian traffic.
- Do not use a grill on top of or underneath any surface that will burn, such as a porch or carport. The wooden deck attached to your house is NOT a good place to barbecue.
- Never move a lighted grill indoors, regardless of the weather or your appetite for thick, juicy hamburgers. Opening a window or garage door or using a fan might not reduce carbon monoxide to safe levels.
- Do not build a charcoal fire in an indoor fireplace. The briquettes do not produce a fire hot enough to draw the combustion products up the chimney. As a result, poisonous carbon monoxide can remain in the room.
- Use starter fluids designed for your grill. Place the can and matches away from the grill. NEVER use gasoline to light a grill.
- Never leave a lighted grill unattended.
- Keep children and pets away from a hot grill.
- If the coals start to wane or are slow to catch, fan them or use dry kindling or rolled-up newspaper to give them a boost. Adding liquid fuel could result in a flash fire.

## Gas Grills:

- Have your igniter ready when you turn on the grill so the gas doesn't build up and possibly cause a flash burn or explosion.
- If the burner doesn't ignite quickly, shut off the valves, leave the lid open and allow the grill to air out for several minutes before you try to light it again. This will avoid a buildup of explosive gases.
- Store the gas cylinder outside and be sure the gas is turned off at the tank to prevent accidental ignitions. Check the connections frequently for leaks using a soap-and-water mixture. Escaping gas will appear as bubbles. If you see any, tighten the connections or call a professional to repair the grill.
- Clean the metal venturi tubes annually.
- Have the tank filled by a qualified dealer — over-filling can be dangerous.





Never underestimate  
the powers of preparing  
your body. Stretching is  
the first thing you should  
do ... the goal is to  
“get the blood pumping!”

Photo by SSgt Samuel Rogers

Wa





warm up to win!

By SrA Michael D. Brooks, Nellis AFB, Nev.





Photo by TSgt Ben Bloker

**T**here I was at the base intramural flag football championship. It was the first quarter, very first play of the game. You could feel the tension in the air. It was a "has-been's" sports fantasy. It was the only time in my distinguished intramural sports career I have seen more than 50 people at an event. Everyone was there from the commanders to the civilians. As the Supply Squadron came up to the line of scrimmage, we broke our defensive huddle and readied for battle. I was playing linebacker on the left side. The quarterback barked "Hut! Hut! Hut!" The ball snapped and the championship was on the line. As the play unfolded, I noticed a suspicious amount of movement towards my side. "Oh no, first play and they were coming right at me ... bring it on!" As I sprinted forward full speed to heroically involve myself in the first great defensive stop of the game. I felt a sharp pain shoot through my left foot and I crumbled to the ground as Supply's all-star quarterback sprinted past me towards the end zone. I did not realize how serious my injury was until I got up and walked over to our sideline. Needless to say, I missed the rest of the plays in the game, which no doubt handicapped my team. What hap-

pened? How could an event have ended so painfully?

After performing a quick battle damage assessment of myself, I realized I needed medical attention. I limped over to my car and drove to the emergency room. X-rays revealed a broken navicular bone in my left foot. Unfortunately for me, this bone is very important. I had ended my intramural football days by breaking it. Two weeks later I was on an operating table having the crack in my left navicular bone repaired with a 6-inch surgical screw. What started as a recreational injury turned into 6 weeks in a cast, a new friend imbedded in my foot and 6 months of intensive physical therapy. It has been 3 years since that fateful fall evening.

My foot has survived, but will tragically never be the

same. Due to the injury and the stress bones endure when they break, I have developed arthritis and occasionally feel pain depending on what activity I am involved in. I do consider myself lucky to have escaped with a normal lifestyle considering the seriousness of my

injury. The ironic reality of the situation is my injury was 100 percent preventable.

As military members, we all lead very active lifestyles. Whether it is accepting the office racquetball challenge, your daily workout routine or even playing the Saturday round of golf, the possibility for injury always exists. The good news is there are many things you can do to prevent a similarly luckless event from striking you. The first thing I was asked by the doctors who treated me was "What did your warm-up routine consist of?" I remember thinking, "Warm-up routine? I am a warrior. Who has time for a warm-up routine?" But that was the fateful mistake that caused my injury.

Never under estimate the powers of preparing your body. Stretching is the first thing you should do before engaging in any physical activity. It loosens up the muscles and prepares your bones and joints for the stress they are about to engage in. It is very important and does not take very long. A proper stretching routine should last about 5-10 minutes. You want to make sure you can feel the stretches as you are performing them. The specific stretching exercises you do will be dictated by the type of activity you are preparing for. Hold each position for about 10-15 seconds

**Take a few seconds to inspect  
the equipment you will be using ...  
it may save you a trip to the  
emergency room**

without bouncing to effectively stretch your muscles.

Your warm-up session should be intensive enough to raise your heart rate. The goal is to "get the blood pumping." Education is the key, and there is a lot of information available on





Photo by TSgt Ben Bloker

warm-up routines. Your local sports and fitness center, the health and wellness center and even the physical therapy clinic are the best places to start learning what you need to know concerning stretching and warm-up exercises.

Another neglected area of injury prevention is equipment. Thousands of physical enthusiasts become injury statistics each year due to faulty or outdated equipment. I know how much those 1977 Chuck Taylors elevate your game, but your feet and ankles will greatly appreciate the \$50 investment it takes to provide the proper support your body needs. Inspection is also an important preventive measure. How much sense does it make to spend all day at work inspecting equipment to ensure its credibility, then go home and take your bike for a

ride without looking it over? Take a few seconds to inspect the equipment you will be using whether it is a racquet, bat, club or weight bar. It may save you a trip to the emergency room. Take it from me, that is a trip you want to avoid.

A final tip is to always check your buddy's six. Always make sure your workout partner, opponent or teammate is effectively prepared for battle. I once ran a 5K race with a coworker and half way through I noticed that neither of his shoes were tied. It would be a pretty good guess that if he did not take the time to tie up his running shoes, that he didn't start with a warm-up routine first. Preventive measures like the ones I have discussed here do not take long, are not strenuous and can only help.

Although my intramural football days are over and my left foot will

never be the same, I remain very active. I now know what I did wrong and how to prevent it from happening again. At first, it was hard to believe that a few simple stretches could have saved me so much aggravation, but those are the facts. Not knowing this information cost me an activity I enjoyed, not to mention the championship football trophy for my squadron's orderly room. I share this story with you in the hopes that you will learn from my experience. Whatever activity you engage in, make sure your body is prepared and ready to go. Don't forget where you can go to develop a great warm-up routine, but then make sure you implement it. Maybe one day our paths will cross on an intramural battlefield ... I still play a mean third base! Game on! Be smart! Be safe! Most of all, warm-up! Your body will reward you with enhanced, pain-free and prolonged performance. ►
























## FY04 Aircraft

As of April 30, 2004

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

## FY04 Ground

As of April 30, 2004

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

## FY04 Weapons

As of April 30, 2004

	Class A	Class B
8 AF	0	0
9 AF	0	0
12 AF	0	0
AWFC	0	4

## Aircraft Notes

A non-rate producing F-15 test cell engine FOD that occurred in March brought the ACC Class A total to five for FY04. The delayed report highlights an issue raised at the ACC Safety Conference here at Langley in March 04. Wing Safety needs to help keep our maintenance and logistics folks informed on the reporting requirements of AFI 91-223. Here's a quick review of what is reportable by class:

**Class A:** Damage \$1million or more or destroyed aircraft or fatality / permanent total disability

**Class B:** Damage from \$200,000 to \$1 million, permanent disability, or hospitalization of 3 or more personnel

**Class C:** Damage from \$20,000 to \$200,000, lost work day or permanent change of job

**Class D:** Nuclear, Space, guided missile explosives and chemical agents, directed energy, afloat, motor vehicle, off-duty military, and ground and industrial occurrences, \$2,000 to \$20,000, or non-fatal injury

**Class E:** HATRs, HAPs, physiological events, bird and wildlife strikes, propulsion-related events, flight control-related events, miscellaneous events like in-flight fires, fuel leaks and spills

Check yourself before you wreck yourself. Fly safe!

## Ground Notes

ACC has experienced 13 Class A mishaps so far this fiscal year. Eleven involved motor vehicles and two were sports and recreation vehicles. This is a 24 percent reduction over past year's total of 17 Class A mishaps. A common thread that is a contributing factor in most of this year's mishaps is self-discipline. Many of the mishaps involved the use of alcohol and speed.

## Weapons Notes

It's been a very busy quarter in ACC for weapons mishaps. We dropped 19 chaff/flare mods out of the back of a trailer, slid a missile off of a launcher onto the ramp, destroyed two sub-scale drones and applied power to an AGM-65 with a dust cap installed in the umbilical, resulting in electrical damage to the missile. Three of the five mishaps were a result of personnel error and could have been prevented. Use your tech data!

## 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

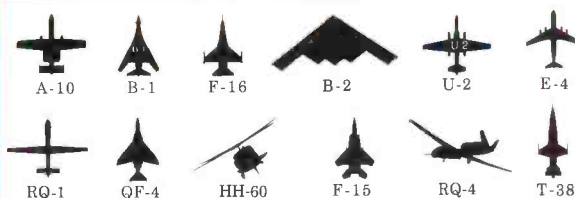






Photo by DC1 Scottie Farra



Photo by TSgt Lea Zimczany



TSgt Kevin Gruenwald



Courtesy Photo



Courtesy Photo



Photo by DC1 Scottie Farra

## The Combat Edge

*"You've got to ask yourself a question, Do I feel lucky?"  
~Harry Callahan*

Summer Warriors, work hard, play hard, but don't leave it up to luck, "get to know your limitations." In 2003, there were 223 sports and recreational mishaps resulting in: 1,755 days on quarters, and 232 days in the hospital costing the Air Force nearly 10 million dollars in medical and associated expenses. Lost days due to sports and recreational injuries put a strain on everyone because your workload doesn't go away when you're not there to do it. Summer sports and recreational activities help build friendships and memories that can last a lifetime; make them good ones.