

The United States Air Force Journal of Occupational,  
Recreational and Driving Safety

# Road & Rec

Volume 16, Number 3 Summer 2004



**Risky River**  
**Dress For The Crash**  
**Ultimate Diving Safety Gear**



**GEN JOHN P. JUMPER**  
Chief of Staff, USAF

**MAJ GEN KENNETH W. HESS**  
Chief of Safety, USAF

**JERRY ROOD**  
Chief, Media Branch  
DSN 246-0950

**JOHN COCHRAN**  
Managing Editor  
DSN 246-0983

**MRS. PAT RIDEOUT**  
Editorial Assistant  
DSN 246-1983

**FELICIA M. MORELAND**  
Electronic Design Director  
DSN 246-5655

**TSGT MICHAEL FEATHERSTON**  
Photo Editor  
DSN 246-0986

**Web page address for the Air Force Safety Center:**  
<http://afsafety.af.mil>

**Commercial Prefix (505) 846-XXXX**  
**E-Mail – john.cochran@kirtland.af.mil**

**DEPARTMENT OF THE AIR FORCE**  
**CHIEF OF SAFETY, USAF**

**PURPOSE**—The Air Force Safety Center publishes *Road & Rec* quarterly, as part of the program to prevent vehicle and other ground mishaps. Contents are not directive unless so stated. **REPRINTS**—Air Force units may reprint *Road & Rec* articles without further authorization. Other organizations must advise the Editor of the intended use before reprinting. This coordination will ensure that articles are accurate and contain the most current information. The appearance of specific commercial products, commodities or services is for information purposes only and does not imply Air Force endorsement. Some individuals in this publication are not Air Force members, and may not conform to Air Force appearance standards. **DISTRIBUTION**—One copy for each five Air Force members. To establish or change requirements, Air Force units must contact **Mrs. Pat Rideout at HQ AFSC/SEPM, Voice—DSN 246-1983; Fax—DSN 246-0931; E-mail—Patricia.Rideout@kirtland.af.mil;** or by mail to:

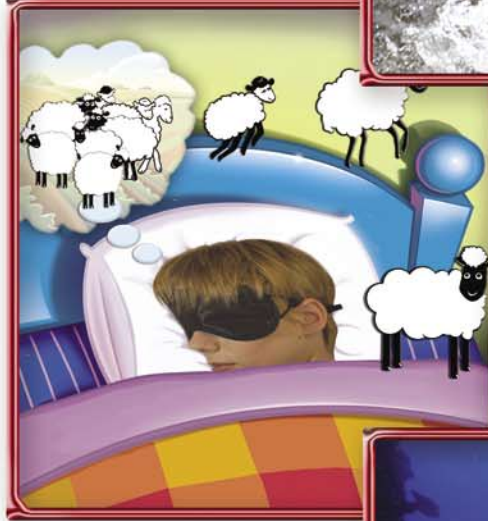
*Road & Rec Magazine*  
HQ Air Force Safety Center  
9700 G Avenue SE, Ste 286  
Kirtland AFB, NM 87117-5670

Limited numbers of back issues are available from HQ AFSC/SEPM.

**POSTAL INFORMATION**—*Road & Rec* (ISSN 1055-7725) is published quarterly by HQ AFSC/SEPM, 9700 G Avenue SE, Kirtland AFB, NM 87117-5670. Periodicals postage paid at Albuquerque, NM, and additional mailing offices. **POSTMASTER:** Send address changes to *Road & Rec*, Attn: Editorial Assistant, HQ AFSC/SEPM, 9700 G Avenue SE, Kirtland AFB, NM 87117-5670.

**CONTRIBUTIONS**  
Editor  
*Road & Rec*  
HQ AFSC/SEPM  
9700 G Avenue SE, Ste 286  
Kirtland AFB, NM 87117-5670

page 8



page 20



page 26



## Features

- 4 New AFSC Chief Of Ground Safety Speaks
- 6 Kayaking The Risky River
- 8 Sleep Tips ...
- 10 Eagle Look At Shift Worker Fatigue
- 12 Dress For The Crash, Not The Ride
- 14 The Fish Tale
- 19 Fitness Facts And Foibles
- 20 Scuba Diving: Safe Or Safely?
- 21 Don't Be A Drowning Statistic
- 22 The Ultimate Diving Safety Gear
- 24 Your Cheapest Fire Insurance—  
A Fire Extinguisher
- 25 The Firebird
- 26 Isaac Smalley: Gone Too Soon

## Departments

- 15 Safety Shorts
- 16 Poster
- 18 Boating Safety Crossword Puzzle
- 30 Snapshot On Safety

# Street Wise.



The right gear will not only keep you comfortable, it will help protect you. Wear a helmet and protective apparel and be prepared for anything the road or the weather throws at you.



(800) 446-9227  
[www.msf-usa.org](http://www.msf-usa.org)





## New AFSC Chief Of Ground Safety Speaks

**JOHN COCHRAN**  
Managing Editor

*Editor's note: John Phillips took over as the Chief of the HQ Air Force Safety Center's Ground Safety Division in February 2004. Below are the questions and answers from his April 7 interview with **Road & Rec**.*

### **What is your safety-related background?**

For the past 15 years, I've worked for the Air Force

in a variety of safety positions, including range safety, ground safety, AF Operational Risk Management program manager, and chief of policy and plans here at the HQ AF Safety Center. Before that, I was an Army officer and helicopter pilot, and worked in aviation safety, tactical safety, and served twice as chief of safety.

### **What are your concerns about ground safety?**

We should be proud of our ground safety mishap rates, and our ground safety program, but I believe we can do better. We can advise commanders so they can improve those rates. How does ground safety go about doing that? The programs, processes and policies we have in place have gotten us to where we are. If we're going to achieve further reductions, we must build on those good programs.

The two macro areas I plan to focus on are first, what I call "housekeeping" of current programs and second, a "targeted mishap prevention" strategy that we're developing now.

In the first area, we need to improve our efficiency and better leverage technology. Although our Air Force Safety Automation System has helped us in standardizing the way we investigate and report mishaps, AFSAS needs to grow into an automated safety management tool. One example is hazard abatement. Currently, unit safety offices have to create their own tracking programs, because there's no Air Force tool provided for them. We're going to charter some teams to address that, and other areas of AFSAS,

with direct participation by people from the field.

The second area—targeted mishap prevention—will be a growth field for us. Right now, the only major targeted mishap prevention effort we pursue across the board is traffic safety. That's a good program that needs continual attention, but we have other concerns, too. The primary cause of lost workday injuries in the Air Force, not counting motor vehicle mishaps, is slips, trips and falls, and their No. 1 cause is snow and ice. It's a seasonal and geographic concern that's

significant at a base such as Hill, in the winter, but probably not at Eglin. We know that most of these mishaps occur between 7 and 8 a.m.—people slip and fall in the parking lot on their way to work. This is an area we can target, and there are many other examples. We'll be putting together some tiger teams with field representatives, to recommend countermeasures and interventions we can offer to commanders in a variety of similar areas.

Another focus I have is on the professional development of Airmen in the safety career field. We have to do a better job of providing for the training, education, and certification opportunities for our safety professionals.

**What goals do you want to accomplish as the chief of ground safety?**

The overarching approach is for ground safety to apply a risk-based approach that provides objective, cost-effective, mission-supportive recommendations to commanders. Our job is not to be the "safety police," but rather to be the commanders' eyes and ears, and their advisers. We have to avoid the "safety purist" approach and look at the bigger picture, and work with other functional areas to develop recommendations and solutions for commanders that not only improve safety, but enhance the mission as well.

**Secretary of Defense Rumsfeld has given DoD a goal of reducing mishaps by 50 percent. How will the Air Force work to reach that goal?**

Although we can always get better, the Air Force has mishap rates to be proud of. The 50 percent reduction challenge will take a new approach. Some "extreme" measures will get another look. There isn't a lot of low-hanging fruit, but there are some ways we can improve. For example, we know that about 78 percent of Air Force fatalities occur in private motor vehicles—both cars and motorcycles. Simple things, like wearing seatbelts and helmets, and not drinking and driving, would lower our mishap rate—but they will not get us there even if we were perfect in these areas.

To get to the 50 percent goal, our focus needs to be on more than mere compliance. It will take active supervisory and commander involvement, especially for off-duty activities, so our people will take the safety culture that exists on the job home with them. Safety and responsibility for our troops doesn't end with the workday. Supervisors and commanders have to be aware of the signals and intervene when needed. Visit the gyms, the dorms, and other places where the troops are. This 50 percent reduction is an ambitious goal, and it is a challenge to leaders at all levels to make it happen.

**The annual "101 Critical Days of Summer" Campaign will be underway by the time this magazine goes to press. What is happening now with the Air Force's current overall mishap rates, especially those for summer activities?**

Year-to-date, our off-duty fatalities are extremely high—obviously, even one preventable death is too many. The numbers are particularly concerning

since, nationwide, we've had a hard winter, which has kept motorcyclists off the road—but, now that good weather has arrived, the number of motorcycle deaths may rise if we don't intervene. What we see from many motorcycle mishap investigations is that our Airmen are making poor personal risk decisions—many of which are extreme. Speeding, not just a few miles per hour, but at more than 20 mph over the posted limit; being grossly intoxicated... These are just a couple of examples. Overall, mishap rates so far this fiscal year are terrible, and the tragic loss of life is unsettling. If this trend continues, we could have the worst year for off-duty fatalities in the last decade and half.

**The Air Force Chief of Staff, Gen John Jumper, has initiated a program of motorcycle mentorship. How do you see that affecting Air Force riders?**

Under this program, we'll have our more experienced, more mature riders mentoring the less experienced riders, so they build on the skills they learn in training courses. Air Force motorcycle fatalities are largely due to poor risk decision making. This leadership by example will reinforce good personal risk management behavior.

**Traffic crashes have been the largest cause of accidental deaths in the U.S. for many years. Is the Air Force doing anything to reduce driving deaths?**

We're emphasizing the role of the supervisor, First Sergeant, and squadron commander. We're also developing some new traffic safety courses targeting the high-risk group—Airmen, 18-25 years old—to provide them with driver education and awareness training, starting when they're in tech school, with a follow-on course at their first duty station's First-Term Airman Center, then a third course about 12 months later. These are in addition to existing courses on local traffic safety.

We're also fielding a traffic safety module for the supervisor's safety training course, to encourage and empower frontline supervisors. They need to know what signs to look for, that indicate when someone has personal problems or performance issues that might lead to unsafe behavior—much like being aware of a subordinate's suicidal behavior. Supervisors and other leaders have to recognize these issues and take appropriate action. Supervisors need to know if their troops are planning a long-distance trip, or have just bought a motorcycle. Identify the risk factors. Supervisors and mentors must work with these young people, so their experience and skill bag fills up before their luck bag runs out.

**Any final thoughts?**

I'm excited about the opportunities here, to improve the ground safety business, and our positive impact on the Air Force mission. What we do for a living is about saving people's lives, and making sure they go home at the end of the day in one piece. We should be proud of that, and recognize that it's important work that directly contributes to the Air Force's mission. ■



## AF GROUND FATALITIES

Year	Total	On Duty	Off Duty	Off Duty Percentage
2000	56	6	50	or 89%
2001	57	3	54	or 94.7%
2002	91	8	83	or 91.2%
2003	83	7	76	or 91.6%

# Kayaking The Risky River

**MSGT ROBERT SMITH**  
302 AW/SEG  
Peterson AFB CO

**ORM** is primarily directed at the on-duty operational level. In reviewing HQ Air Force Safety Center statistics (see the table), I think it would be hard to disagree that emphasis on ORM at the PRM, off-duty level, needs attention.

How about a personal example of PRM? About five years ago, my son Blake and I started exploring the sport of white water kayaking. The two types of kayaking are white water and open water. After having done both, I can attest that there is a tremendous difference. We signed up for a white water kayaking class through the base Outdoor Recreation program, which provided instructors, equipment and transportation to the river. Scott, our instructor, had taught kayaking for a number of years and was very capable and skilled at river rescue. We took lessons at the beginning of the season for at least three years

because for a nominal fee, we could receive a seasonal refresher, expert instruction, wonderful gear, transportation, and someone who could fish me out of the river. Darn good PRM, don't you agree?

My teenage son was strong and coordinated, which allowed him to master such skills as balance, turning and controlling the kayak and, most important, performing the "Eskimo roll," much faster than I. Kayakers use the Eskimo roll to right themselves after being flipped upside down in the water, without leaving their craft. My son looked like a veteran and I looked like I was struggling not to drown the first few times in the pool. That's because I was!

After learning and practicing the basic skills each spring in the nice, warm, non-flowing pool, we went to the river. A most humbling event is leaving the pool able to do multiple Eskimo rolls, then completely floundering in the cold, fast-moving river.

After several years of kayaking on the river, I was doing quite well, as it has to be one of the most challenging and exciting sports I've ever attempted. This





is only be relative to some other activities I've done, such as jumping out of helicopters into the ocean as a Search and Rescue crewman, riding bulls and roping calves in the rodeo (no matter how you look at it, bull riding is a good example of *not* using PRM), parasailing in Texas, ocean kayaking in New Zealand, hunting on the plains and mountains of Colorado, and snowshoeing to the top of two mountains more than 14,000 feet high in the winter with Blake.

Two years ago, before Blake went to college, was the last time we kayaked. We had arranged with Outdoor Rec and Scott to go on a weekend kayak trip. On Friday night, we drove down to a campground near the Arkansas River and camped, so we could get an early start in the morning. We expected to get three or four runs in Saturday and possibly two Sunday, before returning to Colorado Springs.

Unfortunately, a hitch in our plans had been developing over the previous couple of days—a hitch for me, anyway. Considerable rain had fallen in the watershed above where we were going to

be kayaking, producing conditions we hadn't seen before. We showed up Saturday morning to find the volume of water flowing at several thousand cubic feet per second (cfs) above normal. The water was so high it covered many of the truck-sized boulders in the river that are normally exposed. The water looked smoother than normal because of the volume, but it turned out to be quite deceiving. We had been accustomed to kayaking in water flowing at a rate of around 800 to 1500 cfs, and here we faced water flowing three to five times faster.

We arrived at our put-in point and discussed the water conditions. Reflecting on how well I had done on the previous trip that summer, it appeared we—or more correctly, I—could handle it fine, as I was the limiting factor. We put in, and I immediately lost confidence in my ability to handle the water. Even though many of the rapids were covered, the power of the water was tremendous. We were traveling downstream, and the driver of the drop-off vehicle had already left for the take-out point. Heeeeere we go!

continued on page 11



# Sleep Tips For Employers, Supervisors And Shift Workers



**Sleep** is essential for our physical, mental and emotional well-being. Unfortunately, in today's fast-paced, 24-hour society, it's often difficult to get the daily seven to nine hours of sleep most experts suggest. This is especially true for the estimated 15.5 million people working unconventional evening, night or rotating shifts.

Shift workers face unique challenges of alertness, performance, safety and health—all of which are affected by sleep. More specifically, according to the National Sleep Foundation, insufficient sleep has been linked to health problems, including obesity and high blood pressure, negative mood and behavior and decreased productivity. Sleep deprivation can also quickly become a safety issue in the home, at work and on the road, as being overly tired

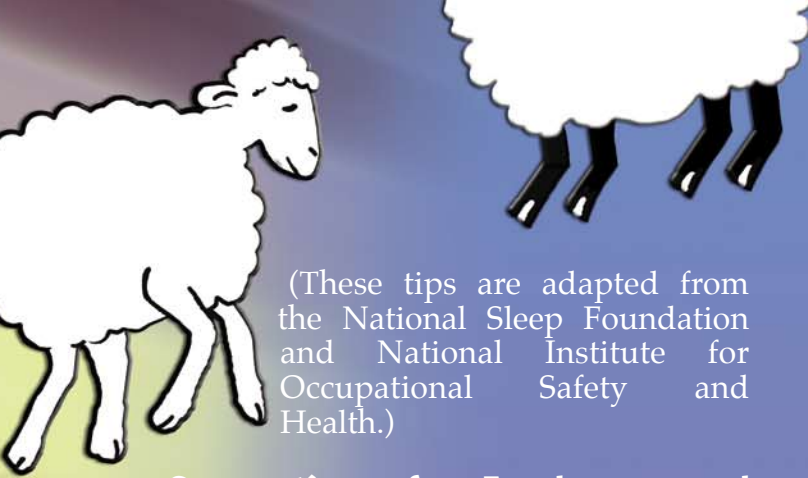
makes it difficult to concentrate, and increases the possibility for errors and accidents.

If workers must sleep during the day due to a work schedule, sleep is generally shorter and lighter than normal nighttime hours. Plus, while working during the night and early morning, workers are continually fighting the body's natural desire to sleep, due to the natural slowing of brain and body functions. The combination of sleep loss and working during the body's low point can cause excessive fatigue and drowsiness, and a potentially hazardous situation.

## What can we do?

Here are some important steps to improve the work/life situation of shift workers susceptible to inadequate sleep.





(These tips are adapted from the National Sleep Foundation and National Institute for Occupational Safety and Health.)

### **Suggestions for Employers and Supervisors:**

Employers can adapt practices to make the workplace safer and more productive for the shift worker. A few suggestions are:

- Offer adequate lighting, fresh air, proper heat and air conditioning in work areas.
- Provide access to nutritious and appealing foods through cafeteria or vending services.
- Consider work schedule features such as time of shift, shift rotations (permanent, rotating speed and direction) and work-rest ratios. Schedule shifts to offer adequate breaks and days off. Plan sufficient time between shifts, enabling employees to get enough sleep and attend to personal lives.
- If possible, schedule heavy or dangerous work at times of peak performance, not in the middle of the night or during early morning hours.
- Provide training or awareness programs for new shift workers and their families to discuss the inherent challenges of shift work. Implement a sleep wellness program. Educate employees about sleep issues, train managers to recognize fatigue indicators in their employees and keep the lines of communication open.
- Communicate the importance of safe driving to and from work. Encourage use of carpools, public transportation, driving with a rested driver, taxis, and other means.

### **Suggestions for Shift Workers:**

When at work...

- Take short breaks during a shift. Exercise if possible, such as walking or climbing stairs.
- Don't leave the most tedious or boring tasks to the end of a shift, a time you may be most tired.
- Commit to eating healthy, even at work. Carefully plan meals. An unconventional

schedule may contribute to tendencies to eat the wrong foods, consume them too quickly and eat at irregular times.

- Communicate with co-workers. Talking can help keep you awake. Colleagues can also help watch for signs of drowsiness.
- Exchange ideas with co-workers—especially shift-work veterans—for coping tactics.
- If possible, carpool or take public transportation for safe travel.

When at home...

- Follow a regular sleep schedule, even on days off and weekends. Make sure that family, friends and neighbors understand your shift schedule, and ask them to maintain a quiet and peaceful environment during your sleep time.
- Consider products to help create a comfortable, dark and quiet sleep situation, such as a good mattress, earplugs, sleep mask, dark blinds or curtains, sleep-inducing audiotapes, or fan or air conditioner to mask disruptive noises.
- Before sleep, don't eat too much (or too little) and avoid caffeine, nicotine and alcohol.
- Try exercising moderately before going on shift (too much before work may be tiring). If exercising before bed, do so at least three hours before sleep.
- Develop a relaxing bedtime routine to help you unwind (i.e., a hot tub or bath).

If sleep becomes a problem on a regular basis, it may be related to your sleep habits and you should discuss this with your doctor or other health care provider. Identify your specific sleep problems and how they affect you, day and night. ■

For more information, check out the National Institute for Occupational Safety and Health, *Plain Language About Shiftwork*, (<http://www.cdc.gov/niosh/pdfs/97-145.pdf>); the National Sleep Foundation, (<http://www.sleepfoundation.org>), or the National Safety Council, (<http://www.nsc.org/groups/members/articles/index.cfm>).

Source: National Safety Council.



# Eagle Look

## At Shift Worker Fatigue



**CAPT ROBERT SIDES**  
HQ AFIA/FO  
Kirtland AFB NM

**H**ow many of you could perform your job well with a blood alcohol concentration (BAC) of .05? None, of course. However, research shows that after 17 hours of wakefulness, the human body performs at an equivalent of .05 BAC.

With the ever-increasing ops and perstempo the Air Force is facing, we must take care of ourselves to minimize fatigue, decrease ground mishaps, and enhance safety. With this in mind, the HQ Air Force Inspection Agency performed an Eagle Look to look at shift worker fatigue.

An Eagle Look is an independent management review of key Air Force-wide programs or processes, requested by senior leadership. Each Eagle Look culminates with a written report and executive briefing, which includes results and recommendations intended to improve Air Force operations, support and acquisition functions.

In February, the Air Force completed an Eagle Look, reviewing the impact of shift worker fatigue on ground mishaps and operation errors. For this Eagle Look, the team focused only on ground-support shift workers; aircrews receive fatigue-management training at various career points. We

conducted 438 face-to-face interviews at 28 installations, and received 9638 responses to a Web-based questionnaire. The Eagle Look team discovered that current Air Force data collection systems are not designed to capture fatigue-related factors in ground mishaps. However, the team did find data that indicated a relationship between shift work-induced fatigue and ground mishaps.

Fatigue management is important to mission effectiveness; indeed, it is mission-critical for aircrews. The Eagle Look team found most ground-support functional areas could benefit from fatigue-management training as well.

We only have to look at statistics to see how fatigue plays a role in our lives. For example, the National Highway Traffic Safety Administration reports that more than 100,000 fatigue-related vehicle mishaps occur each year. Furthermore, New Jersey recently passed Maggie's Law, which states that a drowsy driver is a reckless driver who can be convicted of felony vehicular homicide.

Such laws may spread to more states and could have an impact on Air Force members. Just think back on those nights you were driving home after a 16-20-hour day at the office or after your fifth 12-hour shift in a row. Were you driving with the same vigilance then as when you drove to work earlier that day? Probably not, and you might even be a danger on the road.

Adults need an average of 7.5-8 hours of uninterrupted sleep per day to perform at their optimum. The team, through an on-line questionnaire, asked various Air Force ground-support personnel how much sleep they typically were getting per 24-hour period. Of more than 8,000 responses, 76 percent said they were getting less than seven hours sleep a day; more than half (58 percent) got six hours or less sleep per day.

According to the Air Force Research Laboratory's Fatigue Countermeasures Research and Development Branch, this lack of sleep over time leads to cumulative fatigue, which can lead to exhaustion. Not good if you are working on a multi-million dollar weapon system or working with patients at a medical facility.

Another question the team asked shift workers and their supervisors was if they had experienced any fatigue-related close calls or non-reportable safety events. Twenty-four percent of the respondents answered, "Yes." That's a lot of close calls. The team recommended Air Force safety officials establish a Web-based, non-attribution "Close Call/Near Miss" collection tool for ground safety events. This tool would allow the Air Force to track trends and take proactive measures to prevent a near miss from becoming a safety event.

So, we are fatigued. What can we do? There is a plethora of training resources available that Air Force members can use to mitigate the effects of



fatigue. Admittedly, a majority of the team did not know this, and neither did most of our interview population. However, once the team discovered the resources available and were “spun-up” on the principles of fatigue management, we were impressed by the tools and techniques the AFRL taught to us.

When we asked interview subjects if they were aware of Air Force fatigue-management training resources, more than 80 percent said, “No.” When we explained some of these techniques to interviewees, they were very interested and overwhelmingly felt all shift workers should receive fatigue-management training. Some of the areas the AFRL Warfighter Fatigue Countermeasures branch teaches include causes of fatigue, how to combat fatigue (e.g., proper diet, sleep hygiene, strategic napping), and shift scheduling strategies.

Again, all of these resources are readily available to the Air Force community. If you are falling asleep reading this, maybe you need to ask yourself if you are taking the necessary steps to ensure your body is performing at an optimal level. Are you getting enough sleep? Is your diet and sleep environment conducive to proper sleep?

If you want more information on this subject, a great place to start would be your local Aerospace Physiologist’s office.

If surfing the Internet is more your fancy, then another option would be to go to the following AFRL website: [http://www.brooks.af.mil/AFRL/WFC/Fighting\\_Fatigue\\_1.html](http://www.brooks.af.mil/AFRL/WFC/Fighting_Fatigue_1.html).

To request a copy of the Shift Worker Fatigue Eagle Look report, send an e-mail to [afia.cvs@kirtland.af.mil](mailto:afia.cvs@kirtland.af.mil) and request a copy of report PN 04-602 SWF.

For general information on Eagle Looks, go to: <https://www-4afia.kirtland.af.mil/Eagle-Looks/el-index.htm>. ■

## Whitewater Classes

- Class I:** Easy. Fast-moving water with riffles and small waves.
- Class II:** Novice. Straightforward rapids with wide, clear channels.
- Class III:** Intermediate. Rapids with moderate, irregular waves that may be difficult to avoid.
- Class IV:** Advanced. Intense, powerful, but predictable, rapids requiring precise boat-handling.
- Class V:** Expert. Extremely long, obstructed, or very violent rapids that expose a paddler to above-average danger.
- Class VI:** Extreme. These runs often exemplify the extremes of difficulty, unpredictability and danger.

Blake and Scott were handling the rapids well, and I was doing OK, until we came to the first set of really large rapids. Whitewater rapids are rated in a scale of I to VI. If this wasn’t a 4.5+, I’ll eat my paddle. I was forced into the ever-unpleasant ‘head-under-the-water position,’ moving quickly downstream over and around large boulders, but had made my mind up I was going to Eskimo roll upright, as I had been doing regularly during previous trips. I finally ran out of air and had to bail out of the kayak. I was able to keep the kayak in hand, and finally made it to an eddy, which allowed me to exit the river. Talk about tired!

After walking downstream several hundred yards, to find a put-in point that wouldn’t immediately kill me, I tried again. Got about the same results at the next set of large rapids, except then I lost my kayak. Once on dry ground, I ran through the six ORM or PRM steps—in about 1.5 seconds. Who says it has to take a long time? I decided, and Scott agreed, that *“The benefits did not outweigh the risk.”* Fortunately, we had put in closer than normal to the take-out point, and Scott was there to catch my kayak before it made it to Kansas. We never did get to the designated take-out point, because of my inability to handle the volume of water. Fortunately, we weren’t too far from our ride.

I pondered what had happened on the river. I’d had several years of practice, an experienced instructor on hand, a great kayak and the best personal protective gear available, but I was simply not skilled enough to take on such a large volume of fast-moving water. The three of us packed up and made it back to Colorado Springs in time to enjoy the afternoon.

Two people died on the Arkansas River that day, when, I firmly believe, they failed to consider the increased risk of the greatly expanded water levels. Would I have been killed if we had tried again? Maybe, maybe not. Fortunately, we did assess the risk, and PRM allowed my son and me to return to the river in two weeks, and really enjoy kayaking in 1200 to 1500 cfs water.

Let my experience be a lesson to you. Think about your safety when you’re enjoying the great outdoors. How much risk are you accepting? Do you minimize the risk before proceeding? Do you use PRM before you go on a family vacation? What about when you do yard work or house repairs? Has your unit informed you about the basic ORM/PRM principles and procedures? Do you realize that the ORM/PRM process is fluid? In other words, do you allow your decisions to flow and change as the risks ebb up and down? You cannot afford *not* to take the time to protect yourself and your family when you’re away from work.

Next time you see someone in a wheelchair, reflect on how *you* would feel if you or a family member were forced to be in one for life because of an avoidable mishap. ■



# Dress For The Crash, Not The Ride

**TSGT JUAN M. TOLEDO**  
56 OSS/OSTL  
Luke AFB AZ



**W**hen I started riding some 34 years ago, I thought all I needed was a motorcycle and a helmet. Although a helmet is a great start, there are several missing pieces to this puzzle.

Now I wear a Snell/DOT-approved helmet, riding goggles, hearing protection, chest protector, riding jersey, riding gloves, Kevlar-reinforced riding pants with hip pads, riding shorts, kidney belt, knee braces, riding socks and top-of-the-line riding boots. This was what I decided was important to me, after doing my research.

I'm very glad I selected all the above items, because I was involved in a dirt bike mishap February 8, 2004. The bike high-sided and threw me off. As I was doing a flip in the air, I landed on the back of my right shoulder. The next thing to hit was my helmet, then upper back, and as my lower back/hip hit the ground, I felt excruciating pain. It turns out my lower back landed on a boulder larger than a basketball—the only large rock within 100 feet of me.

I ended up in the hospital for a week, with a fractured pelvis. Although I suffered the fractures, if I had not been wearing my safety equipment, things

would have been much worse—I could be writing this from my new wheel-chair.

Motorcycle riders never want to crash, but smart riders get ready to ride by selecting and wearing the right safety equipment for the crash, not the ride.

Riders like me are aware of how important safety gear is in this sport. Thousands of new motorcycle riders join our sport every year, but there is not a lot of information out there on safety gear, or how to select the right equipment. I have done extensive research on this subject, and would like to pass it to anyone who owns or is thinking of buying a motorcycle or All-Terrain Vehicle (ATV). I will focus on dirt bikes and ATVs, but most of this information applies to street bikes, as well.

Let's start from the top and work down.

- **Helmet:** What is the difference between a \$79 helmet and a \$650 helmet? Paying more does not necessarily give you a better helmet. Consider several factors when selecting a helmet. The U.S. Department of Transportation (DOT) and the Snell Memorial Foundation set safety standards for motorcycle



helmets. DOT sets the minimum standards for all motorcycle helmets. Snell is a private not-for-profit organization that sets higher voluntary standards for motorcycle helmets and other kinds of protective headgear. Make sure the helmet has a Snell and DOT rating sticker, showing that the helmet meets the safety standards of these two agencies. Oddly enough, helmets don't have to pass any testing to be on the market, so it is very important to look for the Snell and DOT certification. Without it, you may end up buying a helmet that could fail during an accident.

If you like your face, go with a full-face helmet. Any questions? The helmet must fit properly, too. Don't buy a larger helmet because you are going to grow into it or because you have several kids and only want to buy one. An improperly fitting helmet can actually be more harmful during an accident—it can allow the head to move too much inside, making the head bounce and amplifying the impact, instead of reducing it. Your head ends up hitting several surfaces as it's trying to stop. Your helmet must fit snugly, with no side-to-side movement, but not too tight, and it must be comfortable. If it's too tight, you may get hot spots—starting with a little pressure on one spot that becomes very painful—after several minutes or hours, it feels like your head is on fire. Finding the right helmet may be more time-consuming than buying a bike, but it can be just as rewarding. Prices range from \$79-600, and a good price is \$125.

- **Eye protection:** A good, comfortable set of goggles will do the trick. You have a wide variety of lenses and shapes to choose from; make sure they fit inside your helmet. Regular eyeglasses are not recommended as eye protection, because they are not wind proof and most don't have safety lenses. Prices range from \$13-\$50, with \$27 being good value.

- **Hearing protection:** What? Most of us don't consider hearing protection as part of our riding gear, but if you ride dirt bikes, ATVs and some road bikes, you need to use them. Several states require motorcycles and ATVs to be below 96 decibel (dBA). Many off-road and some on-road bikes are in the 100-112 dBA range. To give you an idea of how loud that can be, a jackhammer produces 105 dBA at three feet away, and a jet makes 120 dBA-130 dBA at the runway. Hearing loss can start with as little as 85 dBA. Think about this and make the right choice. Prices for earplugs range from \$.50-\$15, with \$.50 being the target price.

- **Neck brace:** This gear is somewhat new to motorcycles, but has been around for many years in football. This brace, similar to a horseshoe, fits below your helmet to protect your neck and collarbone from a head impact with the ground. Prices range from \$20-\$33. Expect to pay about \$28.

- **Chest protector:** These come in many different sizes, colors and styles. Most also protect the back, shoulders and upper arms with rigid plastic and foam. They are very comfortable and lightweight. Prices range from \$46-\$125. Expect to pay about \$79.

- **Elbow guards:** Hard plastic guards that also protect your forearm. Prices range from \$7-\$25, with \$12 being about right.

- **Gloves:** Riding gloves are very good. They are constructed of several layers of leather, and some have Kevlar or even plastic to protect your hands. A good-fitting pair of gloves will protect you during your brush with the brush (or worse, cactus). Prices range from \$8-\$26 per pair. Expect to pay about \$14.

- **Kidney belt:** An elastic belt that wraps around your waist, similar to a weightlifting belt. It offers support and some protection to your lower back. Price range: \$20-\$42, with a target price of \$25.

- **Riding shorts:** Very similar to bicycle riding shorts. They are made of Lycra/Spandex material, with strategically placed impact protection. Price range: \$32-\$60. \$32 is a good value.

- **Riding pants:** They have extra protection built in, and feature stronger materials, such as Kevlar, ballistic nylon, and polyurethane leather. They come with hip pads and reinforced knees. All are large enough to allow you to use knee pads, and some even have room for knee braces. They are cut to fit perfectly inside the riding boots. Price range: \$38-\$170 per pair. Look for the \$70 pair.

- **Knee guards:** Hard plastic protector that fits inside the riding pants. Also protects your lower legs. They do not offer side-to-side or hyperextension protection. Price range: \$8-\$25 per pair. Expect to pay about \$15.

- **Knee braces:** Form-fitting devices that offer side-to-side and hyperextension protection. Braces hinge on both sides of the leg, allowing full natural movement. If you have ever had any problems with your knees, such as torn or damaged ligaments, this is a must. Prices range from \$69-\$250 each, and \$170 each is what you should expect to pay.

- **Riding socks:** Large, double- or triple-padded socks that help absorb vibration and are large enough to accommodate knee braces or pads. Price range: \$8-\$15 per pair, with \$12 being a good value.

- **Riding boots:** Protect toes, shin, ankle and lower leg, allowing the use of knee guards or braces. They all have reinforced soles, shin plates, toe-protection plates and ankle support. Many different design and price ranges are available. Take the time to find a good-fitting pair. Price range: \$80-\$300 per pair. \$105 will get you a good pair.

I don't expect any of you to pay close to \$900 to buy everything on the list. What I would like you to do is look at all the available safety gear and decide for yourself what is important for you to have.

Most motorcycle shops offer a package deal on many of these items, so ask about them when you're buying your bike or ATV. You must also think of all the safety gear the Air Force requires as part of your motorcycle, as well as the optional gear that you deem important. In other words, if you can only afford to buy the motorcycle but cannot afford the protective gear, then you cannot afford the motorcycle! ■



**LT COL HARRY DRUTOK**  
HQ AFSC/SEW  
Kirtland AFB NM

**T**his event happened in 1975, but I can still remember it like it was yesterday. I was returning to Pease AFB from my home in New Jersey. I was on the Massachusetts Turnpike late in the afternoon, on a very rainy day. Despite the very hard rain, traffic had not slowed down accordingly. I was driving my '74 Pinto station wagon and eating a tuna sandwich. I can multi-task!

I was going with the flow of traffic, too fast for the conditions. While driving in the left lane, my car started to hydroplane, and I was headed straight for the guardrail in the median. I attempted to turn the car away from the rail, but had no control. About to smash into the guardrail, I took the steering wheel and turned hard away. The car went into a spin and did a 360 plus a 180.

During the spinning, the tuna sandwich flew out of my hands and smeared across the windshield.

After the amusement park ride was over, my car came to a stop. I couldn't see where I was because of the tuna covering the windshield. I wiped off the tuna and saw, much to my horror, that my car had stopped on the middle of the Massachusetts Turnpike, facing the wrong direction, and cars were coming head-on at a fast pace.

I took that Pinto wagon and whipped it off the side of the road. You know how after something really scary happens, you feel like Mike Tyson is thumping you in the chest? I sat on the side of the road for a while, just trying to recover.

After several minutes, I went on my way, thankful that I wasn't killed, but now I had a new sense of awareness of how important it is to drive slower, with more regard for road conditions.

It was a good lesson for me and I sure hope you don't have to learn it the hard way.

Stay alert, slow down in bad conditions and take my advice...don't ever put so much tuna in your sandwich that if it flies out of your hand, you can't see through the windshield! ■



# Safety Shorts



## Motorcycles: To Ride, But Not To Live

More than 100,000 motorcyclists have died in traffic crashes since 1966.

Deaths and injuries attributable to motorcycle crashes are rising. Motorcycle crash-related fatalities have been increasing since 1997, while injuries have been increasing since 1999.

Since reaching a historic low of 2116 fatalities in 1997, motorcyclist fatalities have increased each year. In 2001, 3181 motorcyclists were killed, an increase of 10 percent in one year and more than 50 percent between 1997 and 2001.

*Source: National Highway Traffic Safety Administration.*

## Timing Is Everything

More than 50 percent of head-on crashes happen in broad daylight, and 80 percent happen on dry pavement.

Traffic death rates are three times greater at night than during the day.

Every 13 seconds, someone in the U.S. dies in a motor vehicle crash.

*Source: National Safety Council.*

## Speed Kills

Exceeding the posted speed limit or driving at an unsafe speed is the most common error in fatal accidents.

*Source: National Safety Council.*

## Light's Red...Gun It!

Each year, more than 1.8 million intersection crashes occur. In 2001, red-light running caused an estimated 200,000 crashes, 150,000 injuries, and about 1100 deaths.

*Source: U.S. Department of Transportation and Federal Highway Administration.*

## Impaired But Not Immobile

Every 33 minutes, someone dies in an alcohol-related crash.

In 1998, alcohol-related motor vehicle crashes killed nearly 16,000 people.

Alcohol is a factor in well over one-third of all traffic crashes.

About 29 percent of crashes killing young people involve alcohol.

Almost 1000 young adults die every year in crashes because of an impaired driver—themselves or someone else.

*Source: National Safety Council.*

## My Bad!

Driver error causes 62 percent of all motor vehicle crashes.

*Source: National Safety Council.*

## Don't Walk This Way

Automobiles kill approximately 5900 pedestrians every year, and 84,000 suffer nonfatal injuries. Almost one-third of these victims are children under age 15—who are only about 15 percent of the U.S. population.

*Source: National Safety Council.*

## You May Have A High Tolerance... But Not The Judge

It is illegal in every state for a person under 21 to buy or publicly possess alcoholic beverages.

Zero-tolerance laws exist in 49 states and Washington, D.C. Blood alcohol content standards are typically set between .00 and .02 *per se*, as opposed to .08 or .10, for drivers 21 and older. "Per se" means that regardless of a driver's outward signs of intoxication, the amount of alcohol detected in the body determines legal intoxication.

*Source: National Safety Council.*



**Have Fun This Summer—Be Smart—Be Safe**

**101 CRITICAL DAYS OF SUMMER**

**101 CRITICAL DAYS OF SUMMER**





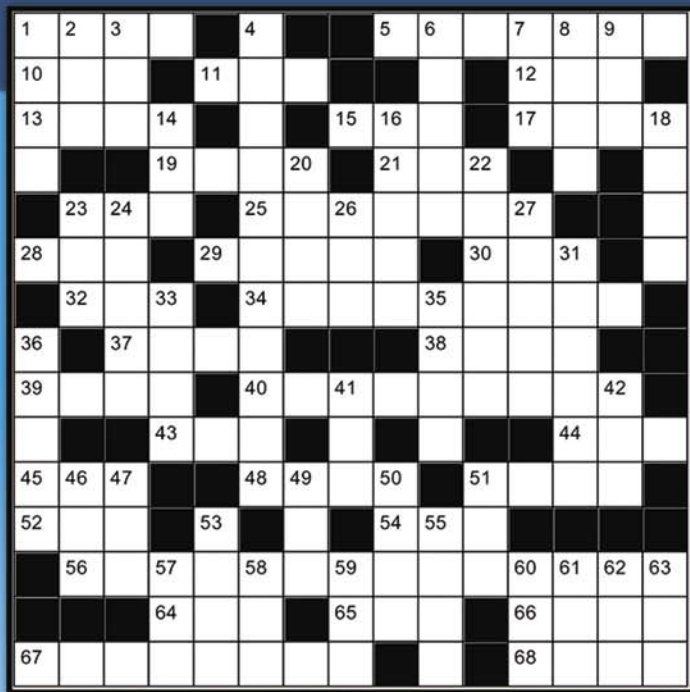
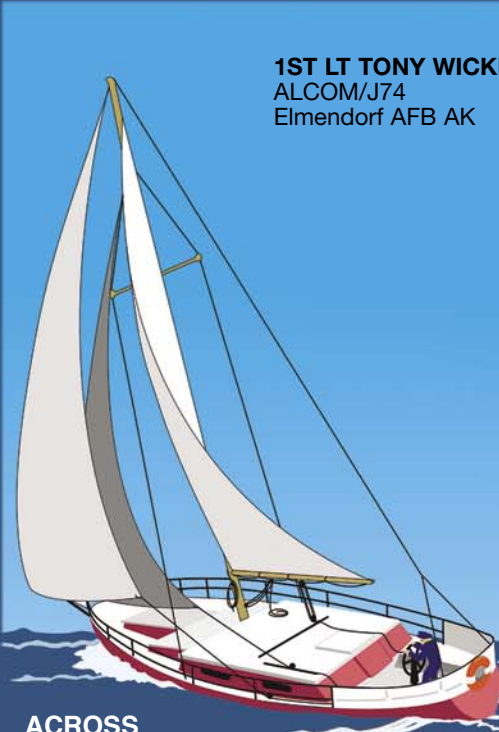
# People Are Counting On YOU!

## The 101 Critical Days of Summer—1999-2003

- 124 Air Force Fatalities
- 38,155 lost workdays—more than 104 years of missing productivity and combat capability
- Occupational mishaps, sports and recreation injuries, car crashes, and motorcycle wrecks account for most lost workdays.



**1ST LT TONY WICKMAN**  
ALCOM/J74  
Elmendorf AFB AK



# Boating Safety

## ACROSS

1. Necessary "ability" for anyone boating
5. Significant contributor to boating accidents
10. Charged particle
11. What 4 down should do to be used properly
12. Reeves's character in The Matrix trilogy
13. Margaret Mitchell novel \_\_\_ with the Wind
15. Feline
17. Sailing destination in Hawaii
19. Clairvoyant
21. Greek letter
23. Free boating safety program offered by 18 DOWN (abbrev.)
25. Departs (slang)
28. Dine
29. Important tool while boating
30. Day of the week, in short
32. An "iced" summer drink
34. What a boater must be with regard to safety rules
37. "\_\_\_\_\_ The Red"
38. American cookery expert Rombauer; wrote The Joy of Cooking
39. Necessary boating item to warn others of your presence
40. What 4 DOWN, 36 DOWN, 39 ACROSS and 68 ACROSS are
43. Horse food
44. Otolaryngologist (Abbrev.)
45. Football official
48. Mailed
51. Exam
52. MTV show with host Carson Daly
54. Air Force equivalent to NCIS or CID
56. Navigation rules are called \_\_\_\_\_; boaters must follow
64. Old English: "before"
65. Shoe width
66. Assistant
67. To sail a boat
68. Necessary boating safety item to let others know your intent

## DOWN

1. Indication
2. Director John of Broken Arrow
3. Hotel
4. Mandatory safety items for boating
6. Game of chance
7. John's wife Yoko
8. Cure
9. \_\_\_ & aah; admiring sound
14. Keyboard key
16. Fable writer
18. Federal org. concerned with boating safety
20. Attempt again
22. Certify
23. Cauldron
24. To guide by a rudder or paddle
26. Oscar-winning actor Robbins of Mystic River
27. Window edging
31. People who are daft
33. River in central Italy
35. Cup brims
36. Boating aid for location
41. Vase
42. Explosive combination
46. Mistake
47. Cause of being sick
49. The self, especially as distinct from the world and others
50. Type of large handbag
51. Even
53. A mass of floating or stationary ice
55. Place to put wood or tools
57. Gift from 17 ACROSS
58. Where a boat is necessary
59. Due
60. Knock on
61. Boat engine necessity
62. Oklahoma town
63. Lair





# Fitness Facts & Foibles

**CAPT JEREMY LANE**  
376 AEW/SE  
Manas AB, Kyrgyzstan

**A**s a member of the exclusive club of “people who have fallen off a treadmill while running,” I feel especially qualified to write about exercise safety. Here are some important safety tips for all of us as we practice our “Fit to Fight!” motto:

—Stretch before and after you work out. This will keep you limber and allow you to continue your routine, as opposed to being too sore to get back into the gym the next day.

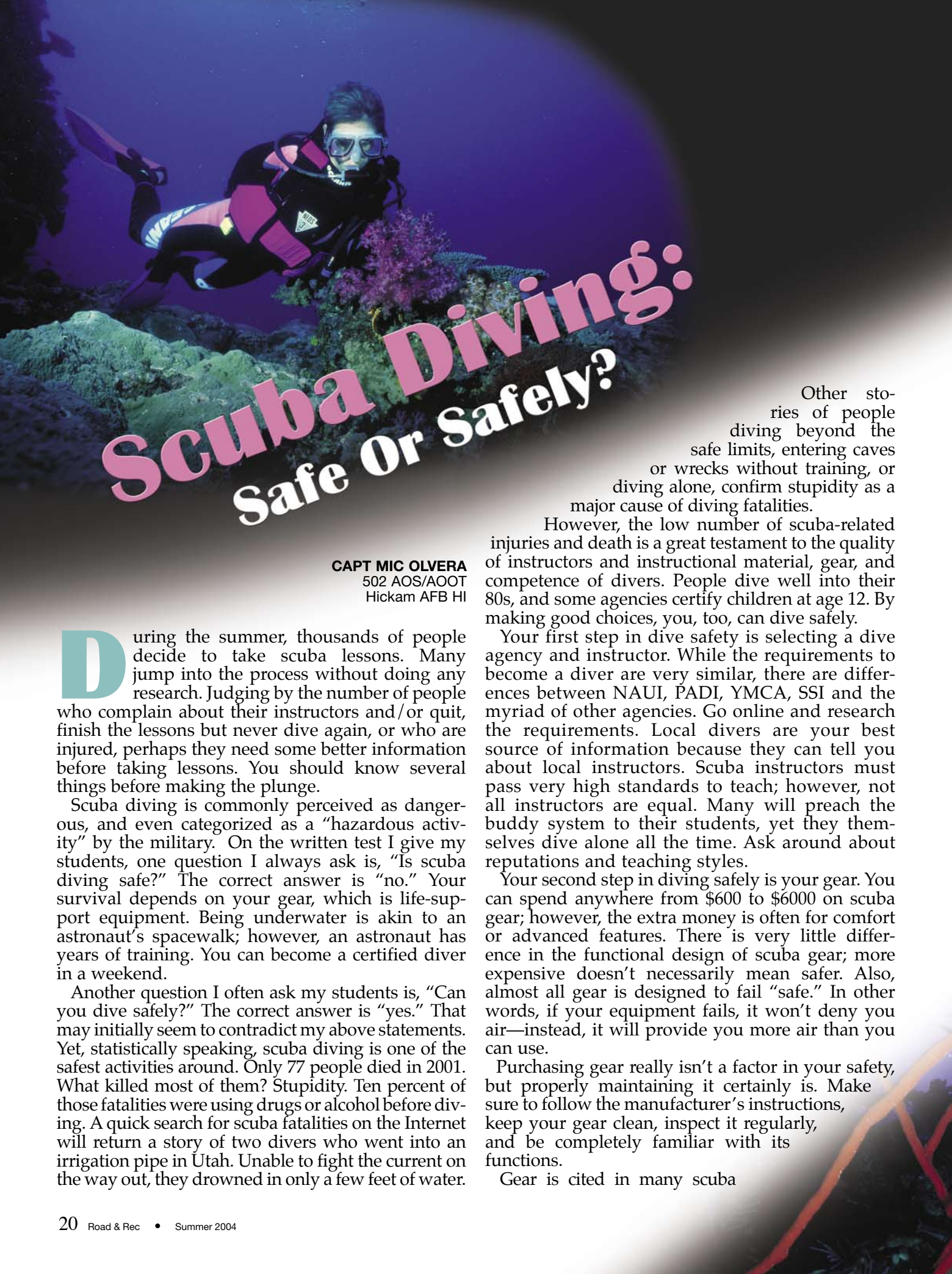
—Clean up after yourself. Not only are half-empty water bottles and used towels unsightly, they provide a risk when they are around or under the equipment you are using. Your mom always told you to pick up your toys when you were done playing with them, and that sage advice still applies today—especially in the gym.

—For the mentally unstable among us who

decide to run outside in wintry regions—and there are some, depending on your location and elevation—bundle up! It is cold, and stretching is not the only thing you need to do to prepare for that mind-numbing run. You need to make sure that you’ve insulated your head, where the body loses 60 to 80 percent of its heat. It never hurts to take a scarf to help warm that cold air you are breathing in, as well.

—The newest fitness test standards are available to everyone in AFI 10-248, *Fitness Program*. You can get this information at <http://www.e-publishing.af.mil> or view the scoring charts at [http://www.af.mil/news/USAF\\_Fitness\\_Charts.pdf](http://www.af.mil/news/USAF_Fitness_Charts.pdf).

—Last but not least, never, *ever*, reach down to try to pick something up while you are running on a treadmill. It doesn’t matter how early in the morning it is, or how much sleep you haven’t had—you will still fall down and look like an idiot in front of all the other folks in the gym with you. Trust me on this ... ■



# Scuba Diving: Safe Or Safely?

**CAPT MIC OLVERA**  
502 AOS/AOOT  
Hickam AFB HI

**D**uring the summer, thousands of people decide to take scuba lessons. Many jump into the process without doing any research. Judging by the number of people who complain about their instructors and/or quit, finish the lessons but never dive again, or who are injured, perhaps they need some better information before taking lessons. You should know several things before making the plunge.

Scuba diving is commonly perceived as dangerous, and even categorized as a “hazardous activity” by the military. On the written test I give my students, one question I always ask is, “Is scuba diving safe?” The correct answer is “no.” Your survival depends on your gear, which is life-support equipment. Being underwater is akin to an astronaut’s spacewalk; however, an astronaut has years of training. You can become a certified diver in a weekend.

Another question I often ask my students is, “Can you dive safely?” The correct answer is “yes.” That may initially seem to contradict my above statements. Yet, statistically speaking, scuba diving is one of the safest activities around. Only 77 people died in 2001. What killed most of them? Stupidity. Ten percent of those fatalities were using drugs or alcohol before diving. A quick search for scuba fatalities on the Internet will return a story of two divers who went into an irrigation pipe in Utah. Unable to fight the current on the way out, they drowned in only a few feet of water.

Other stories of people diving beyond the safe limits, entering caves or wrecks without training, or diving alone, confirm stupidity as a major cause of diving fatalities.

However, the low number of scuba-related injuries and death is a great testament to the quality of instructors and instructional material, gear, and competence of divers. People dive well into their 80s, and some agencies certify children at age 12. By making good choices, you, too, can dive safely.

Your first step in dive safety is selecting a dive agency and instructor. While the requirements to become a diver are very similar, there are differences between NAUI, PADI, YMCA, SSI and the myriad of other agencies. Go online and research the requirements. Local divers are your best source of information because they can tell you about local instructors. Scuba instructors must pass very high standards to teach; however, not all instructors are equal. Many will preach the buddy system to their students, yet they themselves dive alone all the time. Ask around about reputations and teaching styles.

Your second step in diving safely is your gear. You can spend anywhere from \$600 to \$6000 on scuba gear; however, the extra money is often for comfort or advanced features. There is very little difference in the functional design of scuba gear; more expensive doesn’t necessarily mean safer. Also, almost all gear is designed to fail “safe.” In other words, if your equipment fails, it won’t deny you air—instead, it will provide you more air than you can use.

Purchasing gear really isn’t a factor in your safety, but properly maintaining it certainly is. Make sure to follow the manufacturer’s instructions, keep your gear clean, inspect it regularly, and be completely familiar with its functions.

Gear is cited in many scuba



accidents, not because it failed, but because the diver used it improperly. You should be able to operate your gear with your eyes closed.

Your final step in diving safely is maintaining your competence and ensuring you have a competent buddy. Diving frequently, practicing skills, and taking advanced lessons are excellent ways to increase your abilities (almost half the 2001 fatalities involved people who only had the initial open water certification).

Having a competent buddy is also critical to diving safely. Your buddy may be the one to say, "Hey, that's not a good idea." You may be the best diver in the world, but if you get in trouble and your buddy is nowhere to be seen, then you have a problem. Your buddy must be within arm's reach at all times.

When teaching lessons, I often pull my regulator out of my mouth and simulate an out-of-air emergency, just to see what the student does. Almost half the time, the students aren't even aware I'm having a problem until I swim over to them.

You may think being within 10 feet is close enough; it isn't. It only takes one second for your buddy to disappear around some coral and you're on your own. You should dive with a competent buddy and stay close enough to each other to provide immediate assistance at all times.

So, is scuba diving safe? Most certainly, it has the potential to severely injure or even kill you. Can you dive safely? Of course. With quality instruction, proper gear and maintenance, and competency for you and your buddy. ■

# Don't Be A Drowning Statistic

**CAPT MIC OLVERA**  
502 AOS/AOOT  
Hickam AFB HI

**W**hat can I tell you about beach safety that you haven't already heard every year during the "101 Critical Days of Summer" briefing? You've already been told how to escape rip currents and treat jellyfish stings, so what more could there be? First, let me start out with some statistics from the National Center for Injury Prevention and Control (NCIPC).

In 2000, there were 3482 unintentional drownings (not including boating-related accidents) in the United States. That's an average of nine per day.

During that same year, for every child drowning fatality, six other children were admitted to the emergency room for near drowning or non-fatal submersion injuries, with half requiring hospitalization.

A 2001 NCIPC study reported that drowning was the No. 2 cause of death from unintentional injury for children ages 1-14, the No. 3 cause of unintentional injury death for people ages 15-34, the No. 4 cause for people ages 35-44, the No. 7 cause for people ages 45-64, and the No. 9 cause for people over age 65. This includes males and females of all race and ethnic groups in the United States.

I hope that got your attention. Now, let's address some of the issues and establish some water-safety rules.

First, why do so many children drown? As a Volusia County Lifeguard in Daytona Beach, Florida, I witnessed firsthand what I believe to be the answer to this question: careless parents. You would not believe how many times I found children playing in the ocean or walking down the beach alone. I'm not talking about teenagers, either. I'm talking about six-year-olds. I'd bring the kid over to my tower, call the station, and wait for the parents. Often, hours would pass before the parents even knew their kid was missing. I've seen rip currents strong enough to knock full-grown men off their feet in knee-deep water.

Never, ever, let your child play near water without an adult within reaching distance.

**Rule: Children must be under constant supervision in and around the water.**

Second, what is "near drowning?" It's not as simple as it sounds. Almost everyone has swallowed water while swimming, but swallowing water and breathing water are two different things. If a person breathes in water of any kind, bad things happen to lung tissue. While the person may seem fine, they may actually drown hours later on their own fluids.

**Rule: If people are coughing after a water incident, it is imperative that they have their lung sounds checked by a qualified individual right away.**

continued on page 23

# The Ultimate Diving Safety Gear



**LT COL ROBIN GRANTHAM**  
CADRE/PACE  
Maxwell AFB AL

**F**or a scuba diver, a week diving the Red Sea is about as good as it gets. Sun, gin-clear water, beautiful reefs. Add a live-aboard, a floating motel of sorts that travels to the best dive sites while the divers relax on board between dives, and most divers would be jumping at the chance for a dream vacation.

The divers on this trip were as international a mix as the crew: English, American, German and Austrian. I was set for adventure! Sometimes, however, the exotic can be a little too exotic, and when the crew speaks very little English, the stage is set for more adventure than one plans.

In many ways, I was lucky. One of the Brits was solo, and after we chatted a while, I decided we had similar diving styles and would make a good

buddy team. Besides, the Germans spoke little English and the Austrian spoke very little at all!

Midway through the week, we had a chance to dive a recently discovered wreck. During our pre-dive planning, my buddy and I agreed we would not attempt to go inside the wreck, since neither of us was wreck-certified. Mentally, I gave him extra credit for not trying to prove how macho he was. Shortly before we geared up, he had some trouble with his weight belt and one of his friends loaned him an extra. He slid weights onto the belt and we were ready.

Good dive buddies check each other's gear before each dive, and we followed the script. Air turned on? Check. Computers, gauges? Check. No hair stuck in the mask to make it leak? Check. In the back of our minds, each of us was hoping the other had turned on the most important piece of dive gear, but until we were in the water, there was no way to tell. A few minutes into the dive, he desperately needed that piece of equipment. But was it working?

We had descended to the deck of the massive World War II-era British supply ship, about 90 feet below the surface, when the weights on his borrowed belt shifted, slid forward and broke the buckle, but we didn't realize it at the time. As he struggled to fix it, I took his camera from him, which meant I had his bulky camera in one hand and mine in the other, and couldn't help him. Finally realizing the buckle was broken, he motioned to the mooring line and indicated we were going up.

We began a slow ascent, needing to hold onto the mooring line for control, but only able to hold it in the crook of an elbow, since both of us had our hands full. About 15 feet into the ascent, we found the end of the line floating downward—our captain had inexplicably disconnected from the mooring! We were in free ascent now from about 80 feet, with no way to control our buoyancy—a potentially dangerous situation. You need at least one hand to operate the valve that puts air in or releases it from your vest.

**W**e couldn't understand why our captain had disconnected from the mooring line. As it turns out, he had never tied to it, having lost our key line the day before. He had tied to another boat. We were told during the dive briefing our boat was on the green mooring line, but once the other boat decided to leave, our boat was simply adrift on a very busy dive site. The rest of our trip was just as eventful, reinforcing the idea that a diver's most important piece of equipment is a fully functioning brain.



## Don't Be A Drowning Statistic

continued from page 21

My buddy's first instinct was to rely on his training: empty his buoyancy vest of air as best he could, and then drop his weights.

Then that vital piece of equipment proved it was on. It was his brain, and he used it. Dropping his weight belt would almost certainly have resulted in injury to one of the many divers now below us on the wreck. He locked eyes with me to ensure we would ascend together. Fortunately, we had no air in our vests that would cause a completely uncontrolled ascent. Still holding his belt, he slowly kicked to the surface, with me matching his pace.

No, the adventure doesn't end there: the surface had become choppy, and we then needed to have air in our vests to keep us from sinking. The boat captain wasn't watching for divers surfacing, our boat was drifting anyway, and...well...I did say it was quite the adventure. Someone on another boat spotted us and called to our crew, who came to pick us up none too soon, as we were kicking constantly to stay afloat.

On that dive, my buddy had proven that the brain is the single most important piece of equipment divers can use. Without having one's brain fully engaged, a simple dive can become a disaster. With it, a potentially disastrous dive became a story we can both tell years later.

Nearly four years later I married that guy, and he's still the best dive buddy in the world, because he always dives with that critical piece of equipment—his brain. ■

### Solutions to Boating Safety Puzzle, page 18

S	W	I	M	L			A	L	C	O	H	O	L		
I	O	N		F	I	T		O		N	E	O			
G	O	N	E		F		C	A	T		O	A	H	U	
N			S	E	E	R		E	T	A		L		S	
	V	S	C		J	E	T	S	O	F	F			C	
E	A	T		R	A	D	I	O		F	R	I		G	
	T	E	A		C	O	M	P	L	I	A	N	T		
C		E	R	I	K					I	R	M	A		
H	O	R	N		E	Q	U	I	P	M	E	N	T		
A			O	A	T		R		S				E	N	T
R	E	F			S	E	N	T		T	E	S	T		
T	R	L		B		G		O	S	I					
	R	U	L	E	S	O	F	T	H	E	R	O	A	D	
			E	R	E		E	E	E		A	I	D	E	
N	A	V	I	G	A	T	E		D			P	L	A	N

Why do so many teens and adults drown? There are two reasons. First is attitude. People, especially young males, believe they can handle the ocean, regardless of the conditions. I often had people tell me they were U.S. Navy-rated swimmers or on the high school swim team, and ask permission to swim beyond the safe limits. I would often tell them about the two YMCA pool lifeguards who drowned in Florida in a rip current. Here is a simple fact: the ocean never gets tired.

#### Rule: Do not overestimate your swimming ability.

The second reason so many teens and adults drown is their lack of experience and preparedness. According to the U.S. Lifesaving Association (USLA), more than 151 million people visited the ocean last year. A good percentage of them have either never seen the ocean, or are only occasional guests. While you may have been briefed about rip currents, it's very likely you've never been in one, seen one in person, or even know where to look. You may have heard how to treat jellyfish stings, but you probably don't have any vinegar with you. You might have seen "Shark Week" on television, but you probably won't be able to differentiate between a dolphin and a tiger shark when you see a fin heading toward you in the water.

The point is, you may get your "101 Critical Days of Summer" briefing every year, but will you remember it when the safety of you and your family hang in the balance? Probably not. So here is the last rule: Talk to the lifeguard.

I don't mean after you've already been in the water. After a long flight or drive to the beach, your first instinct is going to be getting wet. I saw this firsthand. A family arrived on the beach, parked in front of an unmanned lifeguard tower, and the two siblings went in the water.

In seconds, the 25-year-old male was swept away. It took me and seven other lifeguards more than 45 minutes to bring him back to shore, through the small-craft warning water conditions. His mother was still checking them into the hotel. He died the next day.

Lifeguards are your best source of water safety information. Talk to them every day you're on the beach. Ask if any rip currents are present and if so, where? They'll show you. Ask how far away from the tower you can safely swim. Many lifeguard corps are only liable for your safety within 100 yards of a manned lifeguard tower.

When you go to the beach, ask the lifeguards about jellyfish, dropoffs, and longshore currents. In four years of lifeguarding, I never once had to rescue anyone who asked me these questions before getting in the water.

In 2003, beach lifeguards rescued almost 36,000 people. Of the 66 people who drowned at the beach, only nine of them drowned under a lifeguard's supervision.

Be smart. Improve your odds. Don't become a statistic. ■



**Your Cheapest  
Fire Insurance—  
A Fire Extinguisher**

**CHUCK DORNEY, P.E., C.S.P.**  
Chief, HQ AFMC System Safety  
Wright-Patterson AFB OH

**D**uring the Christmas holidays, my 14-year-old son, Kevin, used a match to light a candle in his bedroom. He's responsible enough to do this, and the candle is mostly enclosed. He accidentally dropped the match into a nearby trash can, which started smoking. The smoke detector did its job alerting us, but Kevin had already extinguished the smoldering match. Or, so he and I thought.

We should have carried out the trash can and let it sit outdoors for a while to be sure that the match was out. Well, we didn't. Kevin then left his room to take a shower, and he closed his bedroom door. Kids like privacy, ya' know.

Minutes later, my wife enters his room for an errand, and the bed is ablaze! The match in the trash can had re-ignited, and the fire spread to the adjacent mattress and box springs.

Understandably, my wife emphatically hollered for help. Before I finished saying "Oh \_\_\_!", I was beating out the flames with a quilt. So far, so good, but a small flame was still inside the box springs, out of reach of any quilt.

Now what? "Oh yeah, that fire extinguisher in the kitchen! Wow, it's years old, but I examined it not too long ago. I hope I remember how to use it, and I hope it works."

I did, and it did. Fire completely out. Yes, we watched it for quite a while to be sure.

We spent the rest of the day getting rid of the smoke smell—swabbed the walls, shampooed the carpet, and laundered dang near everything.

Finally, we set up an odor eater—a can of deodorizer that sits on the floor. The odor was completely gone the next day—no kidding.

Damages? New mattress and new box springs. We didn't replace the carpet that had one small burned mark. We let that remain as a reminder.

Another five or 10 minutes would probably have caused us to lose the house. We saved the place with a \$15 fire extinguisher.

I hope you have at least one extinguisher in your house. It's a great investment! ■





# The Firebird

COL HARRY S. WOODSON III  
916 MSG/CC  
Seymour Johnson AFB NC

**H**ave you ever almost lost everything? I have; all that saved my family and me from losing our home, our cars, and possibly our lives, was a little fire extinguisher.

My wife was due home soon, and we had planned to go out for the evening. As I cleaned the garage before she arrived, I decided to get rid of several leftover liquor bottles we had stored in a cabinet, next to where she parked her Firebird. Most of them were at least half-full.

At about 7 p.m., after my wife had come home, we were dressing to leave. Suddenly, my daughter, Melinda, rushed into our room, yelling that there was something wrong in the garage.

The garage was at the opposite end of the house. I ran through the den and kitchen, and opened the door to the garage. It was pitch dark—all I could do was hear and smell. It sounded as if the car were running. I will never forget that sound!

Not knowing what was wrong, I ran back through the kitchen. I remembered the fire

extinguisher I had received as a safety award, while working at Michelin Tire Corp. I grabbed it and ran through the den and into the front yard. I rushed to the garage. Luckily, both garage doors were open.

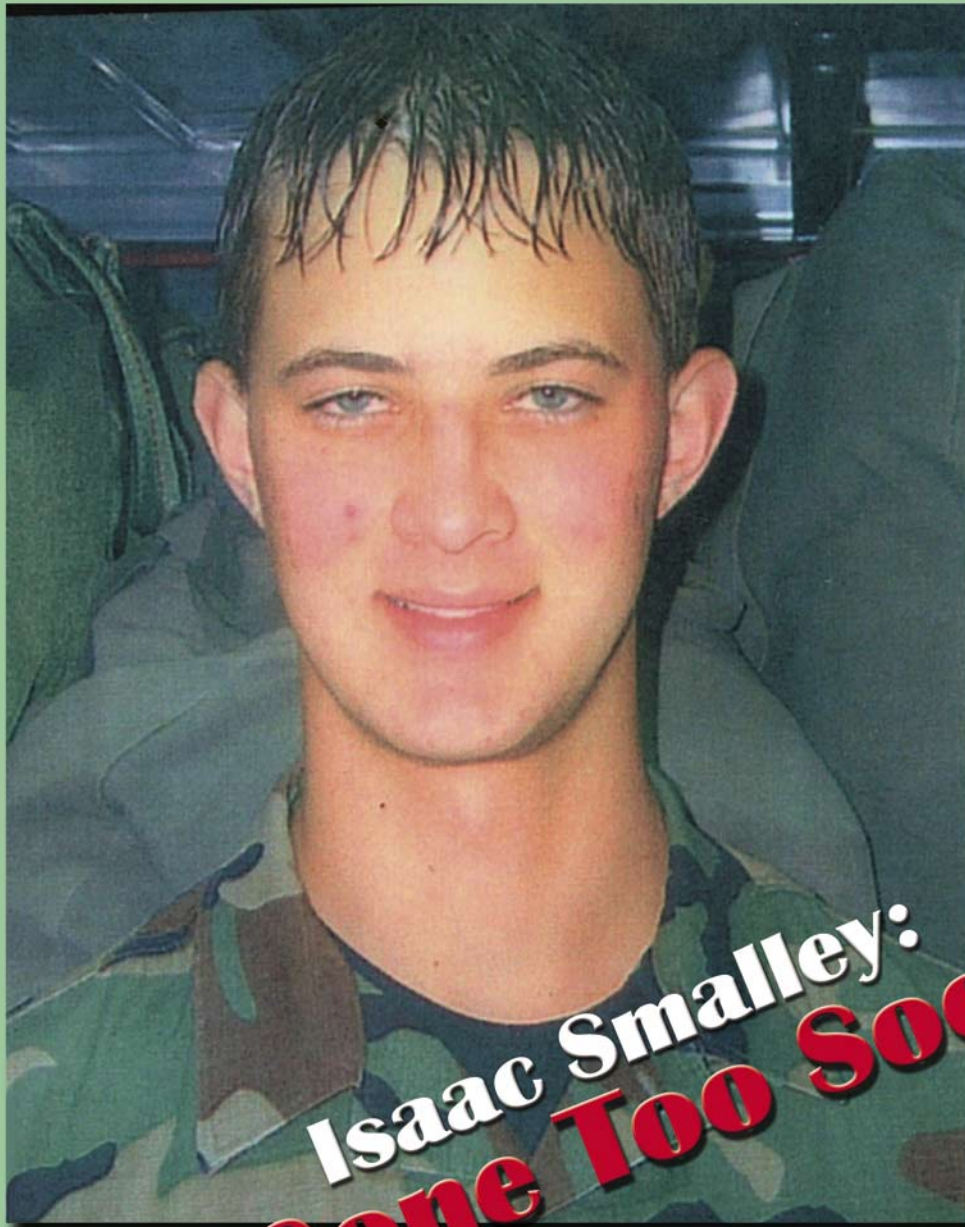
The flames were all over the Firebird! My pulse quickened and my first impulse was to run. My mind was racing! To run was to lose it all, including my new, fully gassed Maxima parked next to the Firebird—not to mention the house. I also didn't know where my wife and daughter were.

Instinctively, I reached for the ring on the fire extinguisher. I will never forget how that little fire extinguisher reduced that fire to nothing, in just a moment. What a relief!

I then got on the floor and looked to see if any flames were under the car. I could see light coming from the engine. I held my breath, opened the car door and released the hood latch. Sure enough, the engine was burning. Fortunately, the fire extinguisher had enough left to finish the job.

Ten minutes later, the fire department arrived. Could they have put out the fire? Possibly, but I doubt we would have saved anything, with two cars full of gas in the garage, not to mention the bottles of alcohol I had moved earlier.

Later that month, I received a letter of thanks from my insurance company. The letter stated that the insurer appreciated my bravery in putting out that fire. What a fire extinguisher! ■



below the zone. A friend to many, in and out of the Air Force. A talented writer, who set down his thoughts in verse. A motorcycle enthusiast. And on April 27, 2002, he became one of 22 Air Force people to die in motorcycle mishaps that year.

His preventable death deprived his family, friends, colleagues, and the Air Force, of his gifts.

### Growing Up In The Heartland

Isaac Smalley grew up in Cordova, Ill., a small town on the Mississippi River, near the "Quad Cities" of Moline and Rock Island, Ill., and Davenport and Bettendorf, Iowa. His father was the fire chief and his mother was the utility clerk/treasurer of his hometown.

After Isaac graduated from high school six months early, in December 1997, he took a job the next month with a glass manufacturing company in nearby DeWitt, Iowa. He worked 12-hour shifts on the production line, where the molten glass comes out in sheets for

windows and other products. The teenager spent his paycheck on "toys," such as a 1998 Ford ZX2, a cell phone, hunting and fishing gear, and CDs.

In February 1999, after working at the glass factory for about a year, he signed up for the Air Force.

### A Military Future

At one point, Isaac had wanted to join the Coast Guard, but on a deep-sea fishing trip with his dad, he suffered a serious bout of motion sickness that lasted two days. He already knew he didn't want to follow older brother Travis into the Marine Corps. The siblings, with four years between them, had always done things differently. The Army wasn't even in the running, so that left the Air Force. The more Isaac looked into the Air Force, the more he knew

**JOHN COCHRAN**  
Managing Editor

*(Editor's note: My sincere thanks to Jill Smalley, Isaac's mother, who provided the background information and photographs for this story. I admire her resilience in facing the loss of her son, and her courage in allowing us to share Isaac's story with Road & Rec readers.)*

**R**obert Isaac Smalley was many things. Beloved son of Chuck and Jill Smalley. Grandson of a World War II U.S. Army Air Forces tail gunner. Kid brother of a U.S. Marine. A student, nicknamed "Eyes" by his second-grade teacher, for his long lashes and striking steel blue-gray eyes. An award-winning young airman, serving in the Honor Guard and promoted



that was what he wanted.

Isaac completed basic training at Lackland AFB, Texas, and tech school at Sheppard AFB, Texas, and then went to his first permanent duty station, at Little Rock AFB, Ark. From June 1999 through February 2002, Airman "Ike" Smalley worked as an aircrew life support systems specialist at the 61st Airlift Squadron.

From December 1999 through March 2000, Isaac went on his first 90-day temporary duty assignment, to Ramstein Air Base, Germany and Prince Sultan Air Base, Saudi Arabia. For this TDY, supporting Operations JOINT FORGE, NORTHERN WATCH and SOUTHERN WATCH, he received the Air Force Achievement Medal and the Armed Forces Expeditionary Medal.

### **Moving And Motorcycling**

In February 2002, Isaac made a permanent change-of-station move to the 9th Physiological Support Squadron at Beale AFB, Calif. That's where he bought his first motorcycle, a 2001 Yamaha YZF-R6, in March.

Isaac's mother said that as a youngster, he had been around friends' motorcycles, but had not owned one himself. Now he was happy and excited about his "awesome" new bike, and the modifications he was making to it.

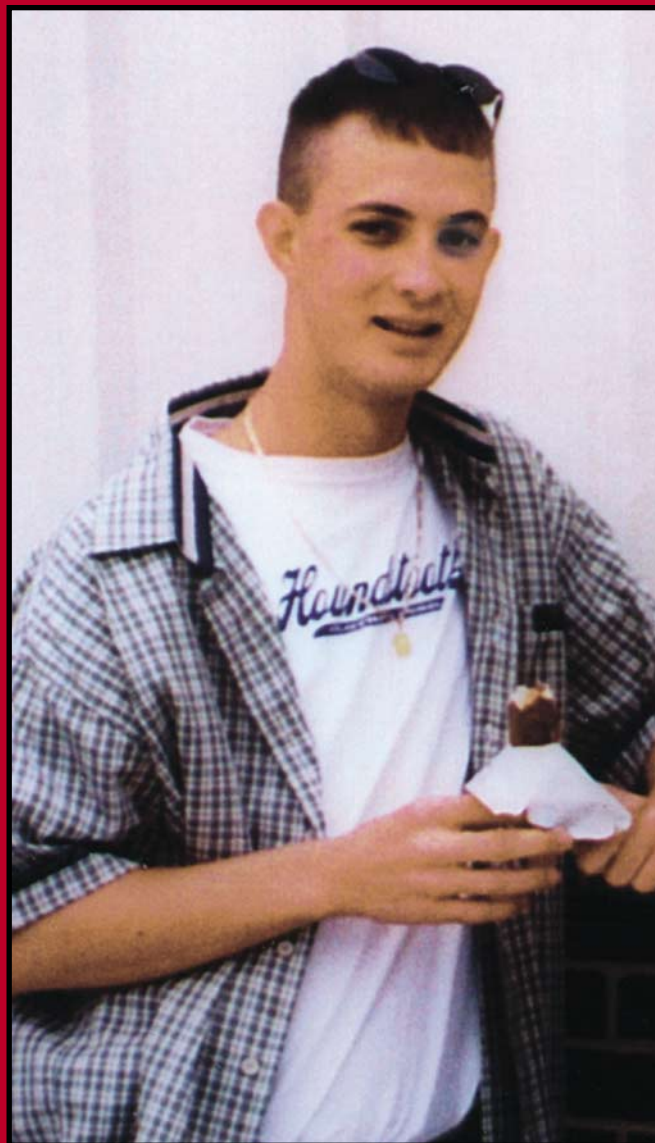
"He bought the most state-of-the-art helmet, gloves, and jacket. He said he could have gotten by with a cheaper jacket, but this one matched the blue and silver on his bike, was more reinforced, and was made by 'Joe Rocket.' I asked him who and what was 'Joe Rocket,' and he just laughed and said, Oh, mama! "Isaac always had to look like he just fell off the front cover of a magazine. Looking sharp was a top priority," Jill Smalley said.

Isaac had a valid automobile driver's license, received a California motorcycle drivers permit, and had put in for Beale's motorcycle safety training course in late April, but a lack of available instructors canceled the class. He then signed up for the May course, but didn't live long enough to take it.

### **The Final Ride**

At about 5:30 p.m. Saturday, April 27, 2002, Isaac left Marysville, Calif. on his new motorcycle, traveling alongside two friends. They were on the way to Bullards Bar Dam, on Marysville Road, which winds through the foothills of the Sierra Mountains. In the late afternoon, the road was in the shadow of mountains and trees on its west side. One of Isaac's riding companions said that he had already ridden his new bike several times by then, but this was the first time he had been on that road. He sped ahead of his friends,

continued on page 29



### **Fireworks On The Fourth**

In 2000, Isaac gained some high-level attention for his actions at the National Capitol Fourth of July celebration in Washington, DC. Mr. Lawrence B. Ryan, an Army veteran and the brother of Gen Michael E. Ryan, then-U.S. Air Force Chief of Staff, commended Isaac for defusing a potentially volatile situation.

"Along with many other people, I was seated in front of the steps that lead down from the West Front of the Capitol Building, facing the Washington Monument and the stage where the show was being performed. One large and very intimidating-looking young man remained standing, blocking the view of the stage for many people seated behind him, despite repeated—and increasingly angry—requests that he sit down. Considering the mood of the crowd, especially in hot weather, when some people

continued on page 29

## Family And Friends Remember ...



"The hardest part for him was not yet being certified to launch and recover, although that didn't stop him from going out on the line to observe his squadron mates: 'Can I just go out and see the jet? I'll work earlys, days, and nights if you need me!' On the day he left us, Isaac had been volunteering with a (U-2 pilot's pressure) suit demonstration at the Bear River Junior High School Community Fair in Wheatland. One of the first to arrive, he helped prepare our booth for the kids visiting the fair. I observed a young man who stood tall, representing the United States Air Force and his unit, mingling in crowds, interacting with children and adults ... all the while demonstrating a high level of military bearing. Not standoffish, but an example young people can look up to. We are challenged every day to strive for our greatest potential, and although we will never know how far Isaac Smalley would have gone, we can pick up from where he left off and pledge to ourselves that we will reach for the stars. That's Isaac's vantage point now."

**Isaac's flight commander,  
Maj Andrew Woodrow**

"I had thought that Isaac and I were invincible. We had many close calls in the past, but always came away unharmed. I thought we would live to be one hundred, but life has a way of unexpectedly turning things around. All it took was one mistake, one split-second decision, one accident to forever change my life and the lives of all that knew him. Every day I think about Isaac. If I could have one wish, it would be to talk to him again, give him a hug, and tell him how much we miss him."

**Isaac's friend since childhood,  
Anthony Garcia**

"He loved to hunt, fish, camp and be in the outdoors. He and I spent many hours together in the field and made trips to northern lakes to fish and enjoy pristine settings in the outdoors together. I remember Isaac best during the fall, when I am in the field hunting, and spring, when I fish. It has been extremely difficult for me to continue these sports since, when even at four years old, he went afield with me. We miss him terribly and will always feel a great loss."

**Isaac's father, Chuck Smalley**

"My last contact with him was Thursday night, April 25, 2002. He called, after I hadn't heard from him for more than 10 days. He had always called me every day in the past. Isaac had never been without a cell phone since he first purchased one in 1999. I found out later that his cell phone had been disconnected, because it (California) was too far for them to maintain his number there in Little Rock. When he did call, we only had a few minutes to talk, since he was due to be at work ... "

"Oh, how I miss his calls. Just to hear his voice again, to touch his face once more, to kiss and hug him, to smell him, just to be able to look at him ... Oh, how I wish none of this was true, that it's been all a horrible dream ... please let me have my Isaac back. Please ... " ■

**Isaac's mother, Jill Smalley**



*Far left:* Isaac (right) on a hunting trip with his father, Chuck Smalley.

*Near left:* Isaac (right) at home with childhood friend, Anthony Garcia

*Below:* Isaac (center) at his high school graduation with father, Chuck, and mother, Jill.



### **Isaac Smalley: Gone Too Soon**

continued from page 27

eventually moving out of their sight.

The mishap occurred suddenly. Two witnesses, in a car going the opposite direction, said they first saw the rider leaning into the curve, then saw him go upright, with the motorcycle wobbling. Finally, the witnesses reported seeing the rider go off the road and hit a tree. The force of the impact caused Isaac's death.

The California Highway Patrol investigator's report explained that as Isaac entered a 25-degree left turn, he lost control of the bike. One of his companions estimated that if he had kept his speed at 10 mph over the posted limit, as he had previously, he would have been going about 65 mph then. The curve's posted limit is 55 mph, with a recommended speed of 45 mph. The CHP investigator wrote, "(His) entrance speed (into the turn) was too great for him to maintain control ... While in the curve, (he) let up on the throttle, in an attempt to slow and maintain control. This deceleration caused the centrifugal force pushing against (the motorcycle) in the curve to upright it as it was exiting the curve, causing it to wobble and (him) to lose control. The motorcycle traveled across the ... shoulder without (him) applying his brakes."

### **The Takeway**

What lessons can we learn from Isaac's death? Bill Slutter, Los Angeles AFB Motorcycle Safety

### **Fireworks On The Fourth**

continued from page 27

have been consuming alcoholic beverages, the situation could have grown ugly, and there were no police officers in view.

At this point, A1C Smalley approached the standee, and while I could not hear what was being said, it was clear he was addressing the other man in a reasonable and polite fashion, to which the man responded by sitting down. Everyone's mood immediately relaxed, and we were able to enjoy the remainder of the performance.

Afterward, my guests and I thanked A1C Smalley for his actions; we also caught up with the other gentleman and thanked him for taking a seat. A1C Smalley was suitably modest in accepting our compliments and simply implied that he saw an action that needed taking and he took it. Frankly, it was the kind of situation where older men like me should have intervened but failed to do so, and I am grateful to A1C Smalley for stepping in.

A1C Smalley showed initiative, courage, courtesy and tact at the Fourth of July celebration—leadership qualities that I am convinced will serve him well in his military career. I hope that the Air Force will recognize his ability and excellent character with appropriate advances in rank. Please give him my regards and tell him how much the Ryan clan and I enjoyed meeting him, and how much we appreciated his wisdom and maturity ... "

The commanders of Air Mobility Command, the 463rd Airlift Group, and the 61st Airlift Squadron echoed Mr. Ryan's sentiments, praising Isaac for his quick thinking and positive influence on the situation. ■

Instructor since 1987, made the following points.

"First, no matter how eager you are to get in the wind, make sure you take a Motorcycle Safety Foundation course before you ride. The Air Force will pay for you to take the course, and won't even charge you leave to attend. A new rider isn't aware of the theory of motorcycle operation, or much more important, the muscle memory response to react correctly to a perceived crisis. That's why it's paramount to that individual rider's survival to take a motorcycle safety course, where you learn theory and technique.

"Second, think about your ability to handle a powerful machine on public roads. Beyond your limits as an operator, road and weather conditions are often less than ideal, and could compromise your safety in a matter of moments.

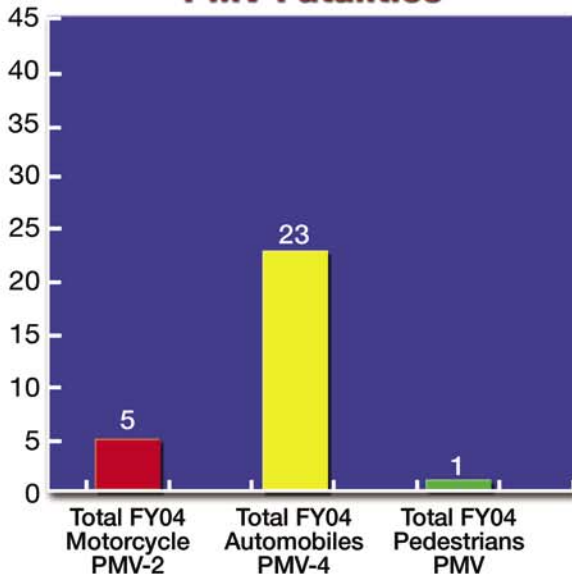
"Third, consider the people who care about you, and what your death would mean to them. There are no 'do-overs' after a fatality." ■



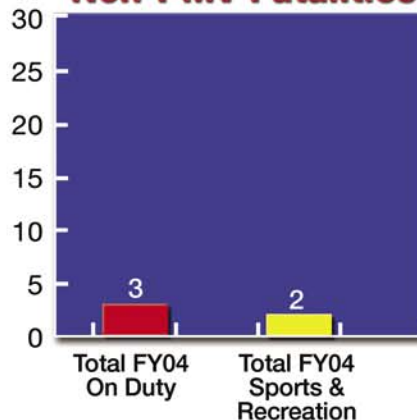
# Snapshot on Safety

## 2nd Qtr FY04 Update

### PMV Fatalities



### Non-PMV Fatalities



**A**utomobile mishaps continue to take more Airmen's lives than all other causes combined. Below are a few examples of how our Airmen are dying. Most of the mishaps were preventable—there were several chances to break the mishap sequence chain. A friend, a relative, a supervisor, and the individuals involved all had a chance to influence the outcome of the mishap. In many cases, people need to be more persistent in dealing with their friend's unsafe behavior, and supervisors need to know what actions they can take to correct risky behavior.

### AUTOMOBILE FATALITIES

#### Fatigue Is Not Your Friend

The day before the mishap, an Airman and his girlfriend drove about 375 miles to another town. They departed at about 3 p.m. and arrived at their destination at approximately 8:30 p.m. After only five hours of sleep, our Airman and his friend woke up at 3 a.m. and departed for the airport about 200 miles away. The drive to the airport takes about three hours. They arrived at 6 a.m. Our Airman dropped his friend off and departed the airport for his return trip at 6:30 a.m. Thirty minutes later, he failed to stop at a red light and his vehicle was struck on the passenger side by another vehicle. He was wearing his seatbelt, and the airbag deployed, but unfortunately, he sus-

tained fatal injuries. Both vehicles were traveling within the posted speed limit. Alcohol was not involved.

**Lesson learned:** Why would this Airman drive 375 miles, sleep five hours, and then back-track 200 miles to the airport? Poor risk decisions is the best guess. Doing the math—375 miles divided by 5.5 hours = over 68 mph. Averaging 68 mph is very difficult having to go through several small towns. That kind of driving alone will tire a person. The Airman should have better planned this trip, to allow more

time—fatigue likely cost him his life.

#### Distracted Driving

An Airman was returning home. Upon approaching an intersection, our Airman pulled into the left turn lane and came to a stop as she waited for the light to turn green. While waiting, she was using her cell phone, talking to her mother. When the arrow turned green (protected turn), she initiated her turn while still talking to her mother. Just before her light turned green, there were several vehicles traveling east within the posted speed limit. A vehicle in front of the tractor-trailer slowed to stop for the light. The tractor-trailer veered to the right to avoid striking the vehicle in front of him. The tractor-trailer continued into the intersection, where it struck the Airman's car. Our Airman was wearing her seatbelt, the vehicle's airbag deployed, and her headlights were on. Investigation concluded she probably observed the vehicle in front of the tractor-trailer slowing down and determined it was safe to proceed on the green arrow, without realizing the truck behind the car was not slowing. She didn't have any time to react by the time the tractor-trailer entered the intersection. Toxicology tests were not accomplished.







**Lesson learned:** Protected green turn lights at an intersection don't mean you're protected. Intersections are one of the most dangerous traffic environments requiring multi-tasking decisions. They are not the place to add another task by talking on the cell phone. Intersections require your full attention. Eliminate cell phone use before you are eliminated.

### Designate A Good Driver

Three Airmen went out for an evening of fun at about 6 p.m. They shot pool for several hours and then went to another nightclub shortly after midnight. There they socialized until about 3 a.m., when one of the Airmen went looking for the other Airman and found him asleep in the back seat of his car. The other two Airmen decided it was to go home and got in the car and headed back to the base. They were traveling at a high speed and the driver entered a right curve, lost control and went into a clockwise skid, hit a guardrail and then a tree. The operator was not wearing a seatbelt and was ejected through the front windshield. The other Airman, asleep in the back seat, was not wearing his seatbelt, was partially ejected out the back, and sustained fatal injuries. The Airman passenger was wearing a seatbelt and unbuckled his seatbelt to help the others. Speed, alcohol, and fatigue were contributing factors in this mishap. The weather was clear.

**Lesson learned:** The driver drank only non-alcoholic beverages during the evening—good judgment. The driver's friends, coworkers, and supervisor said he was not a safe driver—bad judgment. He was known to drive fast and to be a risk taker. His first-time supervisor said he did not know what actions he could take to change the driver's behavior. A more experienced supervisor might have addressed the behavior problem. Had this supervisor addressed his concerns to leadership, actions could have been taken to possibly correct the operator's behavior. The other two Airmen drank alcohol all evening, which is probably why one Airman went to sleep in the car and didn't put his seatbelt on. The Airman who wore his seatbelt said he didn't question the other two Airmen not wearing seatbelts, because they were his friends, and to his knowledge, they never wore seatbelts.

## MOTORCYCLE MISHAPS

Motorcycles can be a great form of transportation and entertainment, but they must be respected. Lately, our Air Force members have been involved in a high number of motorcycle accidents, many of which were fatal. In FY03, we lost 24 Airmen to motorcycle accidents, most of which involved unsafe operation of single vehicles, and operators who

practiced poor risk management or operated beyond their abilities, and lost their lives in the process. Now is the time to emphasize motorcycle safety. Mid-April to the start of "101 Critical Days" is when we experience most of our motorcycle fatalities. The riding season has just started, and the Air Force has already lost seven Airmen in motorcycle mishaps this year.

### Speeding, Sliding

An Airman was riding his motorcycle on a two-lane paved road when he lost control at a high speed (estimated between 80-100 mph). A witness said he saw the front tire begin to shake violently from side to side. Our Airman attempted to stop and locked the rear tire. Then the rear tire came out of alignment with the front tire and slid to our Airman's right. He released the brake and the motorcycle immediately righted itself, at which point our Airman was ejected onto the road, slid across the centerline and was struck by another vehicle. Our Airman was trained and wearing the appropriate personnel protective clothing. The weather was clear, the road was dry, and alcohol was not a factor.

**Lesson learned:** Riding a motorcycle at 80-100 mph is risky business, at best. Nevertheless, the Airman forgot what was taught to him during his motorcycle safety training course. The course teaches that once you lock the brakes, keep them locked as long as you have traction. If you release the brakes, you get "high-sided"—exactly what happened to our Airman—the motorcycle leaps forward and leaves you hanging. The takeaway points: Manage risks—don't add more. Do a pre-ride check to ensure you and your motorcycle are in top riding condition. Always ride within the limits—the rider, the ride and the environment.

## PEDESTRIAN MISHAPS

### No Spare Life, Either

An Airman had a flat tire and was walking to get help at night, on an unlit two-lane asphalt road, when he was struck from behind. According to the police report, the Airman was walking in the right lane—in the same direction as traffic. He did not have a spare tire. The space normally used for the spare was used for a car radio component. The trunk was full of military clothing and other gear, since he was preparing to deploy. The Airman was wearing faded blue jeans, blue/green shirt and a non-reflective light-colored jacket.

**Lesson learned:** Most state laws require pedestrians to walk facing traffic. Common sense dictates using a flashlight or wearing reflective material clothing when walking at night. A spare tire is a must! ■





*Library of Congress, Prints & Photographs Division, WPA Poster Collection, LC-USZC2-1106*

W P A FEDERAL ART PROJECT PENNSYLVANIA

Philadelphia-based artist Robert Lachenmann created this driving safety poster in 1936 or 1937, as part of the Federal Art Project. This was part of President Franklin D. Roosevelt's Works Progress Administration, which put Americans to work during the Great Depression of the 1930s. For more, visit the Library of Congress Web site, at <http://www.loc.gov>.