• Sandi’s Story
• Just Wear It
• A Moment Of Inattention
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Welcome again! I’m on a schedule here, so I’ll get right to the point. Annotate this moment, for it might never happen again! Here goes. If you’re like me, you’ve probably tried affixing springs to the bottoms of your shoes to see if it would help you jump over buildings. If the similarities continue, you failed miserably, wound up with a sprained ankle, a mouth full of dirt and a ruined pair of previously functional sneakers. This being the spring edition, I thought transitioning into this article with that little anecdote would be appropriate, yet strangely irrelevant. Mission accomplished. Now onto the important stuff: Your safety and how not to compromise it needlessly during the onset of warmer weather.

There are any number of possibilities to talk about with regard to spring safety, such as recreational sports, biking, hiking and generally being healthy, not to mention tidal waves of slush blasted onto helpless elderly citizens by passing car tires. I’d like to focus on some of the more psychological aspects of seasonal safety this time. And don’t worry about my credentials; all Vikings are required to have a psychology degree, along with navigation, sailing, plundering, and eating gigantic turkey legs. We’re a busy lot when it comes to the schooling.

Winter is a tricky season; it’s all depressing and cold and windy. People gain weight, get angry and are generally very happy when it’s over. That’s when a whole new genre of stupid things tends to rear its ugly head. Patience is important, as the urge to rush out and commence with the post-winter activities is often so great that you find yourself standing next to the lake with a beach towel, waiting for the ice to melt. Not a good idea; hypothermia can be a real downer. If you gained weight, not to worry! It’ll melt away like the snow, as long as you go about it slowly and methodically. Don’t try running up the mountain on your first day off the couch. You might make it, but odds are you will loathe that mountain tomorrow, and what did it ever do to you, besides tempt your ego? In the interest of protecting both your physical well-being and your ability to harbor good will toward nature, give
the mountain the respect it deserves.

But that’s just the beginning of spring. Then comes the rest, where all the nice weather and sunburns start to happen. Good thing it waits, otherwise you could have a combination of hypothermia and sunburn … that would really be something to complain about. You know what else sucks? Poison Ivy. Just keep that in mind when you’re out frolicking in the woods. If it’s got three leaves, it’s probably not going to make you very happy. If you run it through a pepper grinder and sprinkle it in somebody’s underwear drawer, that would be mean. If you do it just before your unwilling victim is about to run irresponsibly up the side of a mountain, that would be really mean. We’re dealing with a hemisphere with pent-up cabin fever so volatile that should it explode, it would make ammonium nitrate concoctions look like child’s play. Not really; that’s a little severe. But seriously …

Sincerely,

Bjorn, Your Friendly Neighborhood Safety Viking
Protector of Your Well-Being
Unofficial Sponsor of the 2033 Viking Olympics
Licensed Canoodler
In the following first-person account, Ms. Sandra Bawcum, safety coordinator for Johnson Controls Inc., a contractor that provides sustaining maintenance at Intel Corp. sites throughout the United States, tells the story of a serious occupational injury she sustained and the impact that accident has had on her life.

Twelve years ago, I was working as a construction carpenter and had a second job as a bartender, in Denver. One day about 2 a.m., I was waiting to give a girl a ride home. Another employee at the bar liked to goof around by jumping on tabletops and then doing a flip onto the dance floor. He had been told not to do this, but that didn’t stop him.

I was sitting at a table when he decided to perform his little stunt. However, instead of landing on the dance floor, he landed on my head. The next thing I remember is being strapped down to a bed at the hospital, where I kept trying to get up, saying, “Let me go get my son.” He was only a year and a half old, and it was just me and him. He was at the baby sitter’s house, so I was freaking out. At the time, I didn’t even realize I was hurt. But I was about to find out how bad things really were.

One vertebra had been shattered into 28 pieces, and another one was in 13 pieces. One of the pieces had nicked the artery in my neck, causing extensive bleeding. Doctors tried to stabilize my neck by putting a halo on me, but that didn’t work. The vertebrae were shattered into too many pieces.

The injury caused paralysis on my left side. In my head, I felt myself moving, but I wasn’t. Doctors couldn’t stop the bleeding and didn’t think I was going to survive. A priest read me my last rites. I remember being upset because, right in front of me, they called my dad, who lives in Michigan. They told him that if he wanted to see me alive, he needed to be there before the sun came up.

As a last resort, they decided to do surgery. The problem was there was nobody around who could perform the operation. They called all the hospitals in Denver, and a surgeon who is a specialist in the United States just happened to be in town for a conference, so he volunteered to do it.

The surgery lasted 8 1/2 hours. I was unconscious for two days. Finally, my baby sitter brought my son for a visit, and as soon as he came into the room and started saying, “Mommy, mommy, mommy,” I woke up.

After the surgery, I spent 10 days in the hospital, just laying there. The doctor finally started letting me try to get up, but I had a hard time with my left side, because it was still damaged. Also, my right hip hurt, and I couldn’t walk, because they had taken bone...
marrow from there to fuse the plate in my neck to the other vertebrae.

For the next four months, I couldn’t do anything. It was very degrading. My friends and family had to do everything: feed me, dress me, bathe me, take me to the bathroom, brush my teeth. I couldn’t hug my son; he couldn’t sit on my lap.

I had huge staples on the inside of my neck, and stitches outside. I could whisper, but for about five months, it was very painful when I’d try to talk. It was hard just to breathe.

I went through two years of rehabilitation. The first year was like a regular job, Monday through Friday, eight hours a day. I think that was more painful than actually getting my neck broken. I had to wear a huge body brace, all the way from my chin to my hips. The only part of therapy I liked was when they gave me the electric-shock therapy. That felt good.

The only thing that motivated me to work so hard was my son, because it was just me and him, and we really didn’t have a whole lot of support. I went from making a lot of money to making nothing. The only thing we received was a little “workman’s comp.”

I had therapy for every little thing, for two years. I had to learn how to do everything all over again. I lost all my coordination and equilibrium. The doctor had me on 15 different medications for the first year, and I got so sick of taking all those drugs. After a year, I said, “Whatever you can take away that isn’t absolutely necessary for me to survive, get rid of it, because I don’t want to take it any more.”

I had to learn how to sit properly. I had a lot of muscle and nerve damage in my back, from the impact and from the surgery. I used to get huge knots that would give me the worst headaches. You could see the knots in my back — it was creepy-looking. The left side of my body would twitch, bad. My eye would twitch constantly. My cheek would twitch, my mouth, my jaw. My arm would just shake — you could see the muscles vibrating. People used to ask me, “What’s wrong with you? What’s wrong with your eye?” I’m so glad that stopped.

Because the surgery went through my windpipe, I have scar tissue inside, so it’s 25 percent blocked. At first, I was having a really hard time eating food or taking a drink, and not choking. I had to go to therapy to learn how to do that right, too.

I wore that huge body brace for eight months, and then I traded that for a plastic
One of the things that bothered me the most was not being able to run anymore. I was always very into sports, all through school. After the accident, the surgeon said, “Oh, no, running’s out. That’s too much impact on your neck.”

“Even after I’m all healed and better?” I asked.

“Never again, for the rest of your life.”

I’m very much into outdoor activities. I love camping, hunting and water sports. I enjoy going to amusement parks, where they have the bungee chair that slings you up. I’m very adventuresome.

I’m not allowed to do any of that anymore. When family members are doing stuff like that, and I know I can’t participate, I sometimes get angry. But I try not to let things like that get me down. Most of the time, I’m very grateful that I’m alive, I’m walking, and I have all my functions.

I didn’t work for two years. When I did go back to work, there were a lot of things that I couldn’t do for a long time. It took probably a year and a half to two years to get back into it, doing my job fully and being normal. The surgeon told me that being a carpenter was too much of a physical job for me. I told him, “I really like it. It keeps me in shape. It keeps my neck feeling good. I can’t have a desk job. I have to have a physical job.”

After about another year and a half, I was starting to hurt all over. The job began to take its toll on my whole body. We’d had some serious accidents happen because we didn’t have a dedicated safety person. I decided to start learning everything I could and volunteering to take care of safety stuff. I was still being a carpenter, but I was doing safety stuff. That’s how I got into safety.

I still was a carpenter when I got hurt on a job site. I fell into a ditch, because it wasn’t barricaded off. A piece of rebar went through my leg and penetrated to my hip bone. After
that accident, I finally decided to quit carpentry and go into safety work full time.

I changed companies and started taking classes, getting some education in safety. I always had the field experience, but I didn’t have the classroom knowledge.

When you have a serious injury, you go through a lot of emotional stress. For me, the emotional part was harder to deal with than the physical problems. I was very angry for a lot of years — until I had my daughter. When I found out I was pregnant again, I freaked. What would the pregnancy do to my neck and back? I called the surgeon right away. He reassured me that I would be OK.

The pregnancy was very painful, and I ended up being on bed rest for the last three or four months. But, everything turned out all right, and I had a healthy baby girl.

Until I had her, I was extremely angry. I used to wish horrible things on the man who injured me. Part of the reason was he never once apologized to me. He and a bunch of guys had an apartment together, living the party life. His roommates all brought me cards, and they came to see me in the hospital. They’d give me a ride to rehab or pick me up, when my friend couldn’t do it. He never once said, “I’m sorry,” came to see me, or offered to help.

As a much more mature person — I was 24 when the accident happened — looking back on the situation, I don’t think he behaved that way because he didn’t care or that it didn’t bother him. I think he felt so guilty and so bad about almost killing somebody that he freaked out. Now, I tell myself that he’s very sorry, and I’m sure he is. It just would have been nice to hear him say so when I was going through everything.

There are days when I literally cannot move. I call them my “bad neck days.” I get big knots in my neck muscles. I can’t hear, and I can’t move my jaw, and I don’t get the oxygen, so then I’ll get a migraine. I don’t have them very often. Staying active helps. That’s why I don’t like sitting at a desk. I like to be out in the field, walking, being physically active, because it makes me feel better. I’m not in so much pain. I have bad neck days probably three or four times a year, which isn’t bad, considering that I used to have them once a week.

With safety, everybody has their own stories of what’s happened to them, but it’s so personal to me, because if proper safety practices would have been followed in the bar that night, that accident would have never happened to me.

The accident definitely changed who I was and am. I was one kind of person, and then this happened to me, and my whole life did a 180. I started going in another direction. I used to sweat every little thing. I don’t sweat small stuff anymore.

Most days, I’m just so grateful that I’m physically able to be pretty normal. Because of the nerve damage, I have 76 percent use of my left arm. Nobody ever even knows that I can’t lift stuff or that I don’t have full use of my arm. It never fully healed, but the fact that it healed as much as it did was amazing.

About the only time I get frustrated is when I’m in a lot of pain. Your neck affects your whole back when it’s injured. The older I get, the more the pain is in different places in my back. I have a lot of sympathy for people who have serious back problems.

My physical condition affects the way I interact with my kids. Sometimes I forget that not everybody has a broken neck like I do. Not everybody is missing two vertebrae and has a plate in there that’s fragile. I’ll see my daughter doing a headstand or my son rolling around, and I’ll say, “You guys need to be careful of your necks.” They’ll say, “Mom, we’re fine.”

I’m grateful that I’m alive, and I’m happy. I try really hard every day not to take anything for granted, especially watching my kids grow up. Being able to hug them and walk across a room with them — I try not to take that for granted.
Call for Articles and Imagery

What's your story? Road & Rec needs your stories! Reach out to your peers with your "There I Was" safety tales. Any subject that relates to occupational, recreational or vehicle safety is fair game for publication.

Imagery

We prefer jpegs of 8 x 10 inches at 300 pixels per inch (ppi), with a file size of 3.2 Mb, but jpegs of 5 x 7 inches at 300 ppi, with a file size of 1.5 Mb, will work. These photos show the problems that arise from trying to reproduce the low-resolution images associated with Web pages or PowerPoint®.

This preferred image is printed actual size. It is 5" x 7", 300 ppi, and about 2.5 Mb, when compressed to JPEG (Joint Photographic Expert Group) file format.

This is the same image, reduced to 96 ppi, (typical resolution on the Web and PowerPoint® briefings), showing how it appears at 300 ppi in print. It now has a file size of 945 Kb, and is unusable for print unless shrunk to these dimensions.

Higher-resolution photos are highly prized for print use. Ideal images are 8" x 10", 300 ppi JPEGs that are about 4.5 Mb (compressed from 20 Mb).

Contact Us

To discuss a story idea or submit an article, send an e-mail to the editor at afsc.semm@kirtland.af.mil, or call DSN 246-0983 or commercial (505) 846-0983. The postal address is:

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These two images are enlargements of the same area, revealing what happens when the low-resolution image’s available data is enlarged to the size of the high-resolution image. Scaling degrades the available data, subsequently blurring the image.
The Department of Defense has launched an aggressive approach to meet the Secretary of Defense’s goal of reducing mishaps 75 percent by Fiscal Year 2008. Toward this end, the Air Force is applying the principles of the Occupational Safety and Health Administration’s recognition program, called the Voluntary Protection Programs. The Air Force is merging VPP principles into the Air Force Occupational Safety and Health program to enhance mishap prevention. The Department of Defense established the VPP Center of Excellence to support DoD organizations in administration and guidance, and to provide experts in aligning elements of VPP.

CLYDE CRAWFORD
HQ AFSC/SEG

How & Why We Started

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Defining VPP

In 1982, OSHA formally announced the VPP, and approved the first corporate site. In 1998, federal worksites became eligible for VPP. The VPP requires a partnership of management, labor, and OSHA to establish cooperative relationships at worksites to implement a comprehensive safety and health management system. The programs promote an effective incentive-
based system that amplifies the principle of “employee involvement.” Approval into VPP is OSHA’s official recognition of the outstanding efforts of employers and employees who have achieved exemplary occupational safety and health. Most required VPP elements already exist within current AF safety and health programs; however, to have world-class programs, change is necessary.

**How VPP Works**

In practice, VPP sets performance-based criteria for a managed safety and health system, invites sites to apply, and then assesses applicants against these criteria. OSHA’s verification includes an application review and a rigorous on-site evaluation by a team of OSHA safety and health experts.

**OSHA Approves Qualified Sites Into One Of Three Programs:**

- Star
- Merit
- Star Demonstration: (for worksites that address unique safety and health issues)

Sites that make the grade must submit annual self-evaluations and undergo periodic on-site re-evaluations to remain in the programs.

**How Has VPP Improved Worker Safety & Health?**

Statistical evidence for VPP’s success is impressive. The typical VPP worksite has a lost-workday rate 52 percent below the industry average. Reductions in injuries and illnesses begin when the site commits to the VPP approach to a safety and health management system.
How Will VPP Help The AF?

Fewer injuries and illnesses will mean greater productivity and combat capability. It also will reduce the dollar amounts spent on medical care, recruiting and training replacements for Airmen unable to work. The entire service will benefit as VPP sites evolve into models of excellence, positively influencing safe practices AF-wide.

Mentoring To Help Reach The Goal

Qualifying for “VPP Star,” the highest level of recognition, is the AF goal. Once the service has met all objectives, it can submit an application. The AF intent is to improve safety and health processes and mirror program elements required by OSHA. Full participation at all levels, eliminating “dumb” mistakes, and reducing mishaps will put the AF safety and health system in an elite group of military agencies, setting the standard for others to emulate. An understanding of VPP principles and elements of VPP will be addressed during all phases of implementation. The process will be presented and explained during the training phase, as VPP makes its debut into the Air Force. Each installation is individually assessed and assigned a contractor mentor throughout the process. A “VPP Star” status site will mentor each AF site, providing assistance as needed. The mentor site helps the candidate improve its safety and health management system, and assists managers and employees in preparing for participation in the VPP.

Where We Stand

The AF VPP process began in 2006, with several sites assessed. The Air Force Safety Center (AFSC) was assessed as the corporate standard for all Air Force safety and health systems. Each subsequent site visited was assessed based on those criteria. However, each site had slight variations in program systems, based on mission requirements. Nine sites from five commands were assessed in Fiscal Year 2006. Nine sites will be assessed in FY07. The previous assessments served as learning opportunities, as commanders and agencies presented new ideas to improve the process. It is imperative for each command to focus on the advantages of VPP, rather than viewing it as another safety program.

Looking Ahead

2007 will be a busy year for the AF VPP effort. We’ll look at lessons learned and recommendations from site assessments, develop training tailored for each level of participation, create vectors specific to each site’s mission, establish timelines to provide roadmaps to success, and install a better tracking and feedback mechanism. We’ll also share VPP success stories. The challenge will be to develop a web of communication throughout the AF that will support our global mission and reduce preventable mishaps, both on- and off-duty.

The U.S. Consumer Product Safety Commission estimates that 12 children age 10 and younger die each year, and more than 4,000 are treated in hospital emergency rooms, for injuries related to window falls. Most of the deaths and injuries involve children younger than 5.

Although only 5 percent to 10 percent of children who fall from windows die as a result, another 5 percent to 10 percent receive severe permanent brain injuries from the fall, and 30 percent suffer temporary severe brain injuries, said Dr. Karen Sheehan, pediatric emergency medicine attendant at Children’s Memorial Hospital in Chicago.

In 1991, musician Eric Clapton’s 4-year-old son, Conor, died after he fell from an open window on the 53rd floor of a New York City condominium. Condos were exempt from the city’s requirement for residential window guards. Clapton co-wrote the song, *Tears in Heaven*, as a tribute to his child. The recording was featured in the 1991 film, *Rush*, and won two 1992 Grammy awards, including Song of the Year.
In 2000, the CPSC announced new safety standards for window guards. The industry standards, developed at the urging of CPSC, ensure that guards are strong enough to prevent falls, and that those for single-family homes and the lower floors of apartment buildings can be opened easily for escape, in the event of a fire.

“Whether you live in a high-rise or a single-family home, a window guard can help prevent a tragedy,” said then-CPSC Chairman Ann Brown. “Don’t depend on a screen alone to keep children safe.”

Window guards can be easily installed to prevent a child from falling through an open window. They mount into the side of a window frame, and have bars no more than 4 inches apart. The guards are available in different sizes, and adjust for width. The devices must meet requirements for spacing and strength, and those that allow for escape in case of emergencies must be difficult for very young children to open. Window guards are priced between $10 and $30, and have different configurations. Compare features to determine which guards best suit your needs.

You can also buy window stops, which attach to the window frame to keep the window from opening more than 4 inches. Window stops, available at hardware stores, cost about $2. Some new windows come with stops already installed.

The CPSC issued guidelines for preventing window falls:

- Install window guards to prevent children from falling out of windows. (For windows on the 6th floor and below, install window guards that adults and older children can open easily in case of fire. For windows on the 7th floor and above, permanent window guards can be installed.)
- Guards should be installed in children’s bedrooms, parents’ bedroom, and other rooms where young children spend time.
- Install window stops that permit windows to open no more than 4 inches.
- Never depend on screens to keep children from falling out of windows.
- Whenever possible, open windows from the top — not the bottom.
- Keep furniture away from windows, to discourage children from climbing near them.
What’s Wrong With
We don’t know the identity of the young man in this photo, taken on a public road in Florida. We are able to make out a few things about him, though.

- He can operate his motorcycle with just one hand
- He can multitask
- He has a motorcycle helmet with him

On other points, we can only speculate.

- He may be a superhero, impervious to harm, and therefore not need to wear PPE
- He may be taking a very important phone call

From a safety point of view, there’s a long list of things wrong—probably at least 10. See if you can identify them all.

Photo by Alfredo Viti. Used by permission.
ACROSS
1. Sprint competitor
4. Army equivalent to SPs
7. Health resort
10. Red or Dead
11. Auto support org.
12. Possible injury from carelessness
13. Dangers
15. Mock
16. Accident
18. Italian motor scooter maker
21. Mishandle
24. Hint
25. Opening
26. Copy or duplicate, in short
28. Utters in pain or grief
29. More bubbly
31. TSgt or SSgt
33. Driving safety equipment
37. Tire need
38. ___ Aviv
39. Lament
40. Strike lightly or gently with some thing flat
41. Before, poetically
42. Hurricane center

DOWN
1. Burn residue
2. Afternoon drink in London
3. Bugs’ pal
4. Tennis star Sharapova
5. Safety gear to protect knees and elbows
6. Skating star Cohen
7. Shoulder blade
8. Young dog
9. Dined
14. Base unit of electrical current
17. Soak up spill
18. Video recording device
19. Deep Impact subject
20. Safety item for backs
22. Male offspring
23. LES block
27. Speak
28. Singer Haggard
30. Row
31. Quick rest
32. Spy org.
34. ___ we there yet?
35. Family ___
36. Observe

answers on page 25
U.S. Transportation Deaths Rose in 2005

Transportation fatalities in the United States increased from 45,092 in 2004 to 45,636 in 2005, according to the National Transportation Safety Board. Highway transportation accounted for the largest portion of fatalities, rising from 42,836 in 2004 to 43,443 in 2005.


(Source: National Safety Council)

Car Crashes Top Killer

Motor vehicle crashes are the number one cause of accidental injury death in the United States, on and off the job. Car wrecks remain the No. 1 killer for people between the age of 16 and 24. Twenty-five percent of all crashes involve some kind of driver distraction. An average of one person every two minutes is injured in an alcohol-related crash in the U.S.

(Source: National Safety Council)

Cost of Crashes

The economic cost of motor vehicle crashes in 2004 totaled $240.6 billion in the United States. Each fatal motor vehicle crash cost an estimated $1.13 million.

(Source: National Safety Council)

NHTSA: Seat belt use holds at 81 percent

As of June 2006, 81 percent of American motorists were buckling up—relatively unchanged from 2005—the National Highway Traffic Safety Administration recently announced. NHTSA’s 2006 National Occupant Protection Use Survey also showed that states with primary enforcement laws had an average seat belt usage rate of 85 percent, compared with 74 percent in states that have secondary enforcement laws. Primary enforcement means officers can cite motorists for not wearing a seat belt without citing them for any other offense. Secondary enforcement allows officers to cite seat belt violations only if officers have stopped a driver for another offense, such as speeding or running a red light.

(Source: National Safety Council)

Off-Duty Mishap Stats

In 2006, 44,100 workers in the United States died from off-the-job injuries. Nationwide, four people die in homes every hour, as a result of an accidental injury. One in 36 suffers a disabling injury every year.

(Source: National Safety Council)
SAFETY RESEARCH UPDATE

The following information is courtesy of SafetyLit, a service of the San Diego State University Graduate School of Public Health. Information about the occurrence and prevention of injuries is available from many sources and professional disciplines. SafetyLit staff and volunteers regularly examine and summarize 2,600 scholarly journals from 35 professional disciplines, and scores of reports on safety research from government agencies and organizations. We’ve included these summaries in Road & Rec for their interest to the Air Force community. For more information, go to www.safetylit.org.

Half of Vehicle-Crash Deaths Preventable

A U.S. researcher examined the potential for a lower risk of death compatible with increased fuel economy among 67 models of 1999-2002 model-year vehicles during calendar years 2000-2004. The odds of death for drivers and all persons killed in vehicle collisions were related to vehicle weight, size, stability, and crashworthiness. The calculated fatality rates would have been 28 percent lower, and fuel use would have been reduced by 16 percent, if vehicle weights had been reduced to the weight of vehicles with the lowest weight per size (measured by the lateral distance needed to perform a 180-degree turn). If, in addition, all vehicles had crashworthiness and stability equal to those of the top-rated vehicles, more than half the deaths could have been prevented.


Primary Seat Belt Laws Could Improve Public Safety

State seat belt laws have increased use rates and reduced traffic fatalities, but tremendous variation exists in the laws. New Hampshire does not have a law, and 30 states have only secondary enforcement laws. Whereas primary enforcement allows a police officer to issue a citation for any infraction, secondary enforcement permits a citation only if a motorist is stopped for another infraction first. Researchers performed a cross-sectional time-series analysis of the impact of upgrading to primary enforcement on belt use rates for 47 states and the District of Columbia, from 1991 to 2003. The results suggest that states with secondary enforcement laws could increase belt use by 10 percentage points and improve public safety considerably by upgrading to primary enforcement.


Fluorescent and Reflective Materials May Reduce Pedestrian and Cyclist Injuries, Deaths

Pedestrians and cyclists account for nearly one in three of all road users killed and seriously injured in traffic crashes. Late detection of other road users is one of the basic driver failures responsible for collisions. Aids to improve pedestrian and cyclist visibility have been used to avert potential collisions. However, the impact of these strategies on drivers’ responses, and on pedestrian and cyclist safety, is not known. A study’s authors found no trials assessing the effect of visibility aids on pedestrian and cyclist-motor vehicle collisions and injuries. They identified 39 trials assessing the effect of visibility aids on drivers’ responses. Fluorescent materials in yellow, red and orange improve detection and recognition in the daytime. For night-time visibility, lamps, flashing lights and retro-reflective materials in red and yellow increase detection and recognition. Retro-reflective materials arranged in a ‘biomotion’ configuration also enhance recognition. Visibility aids have the potential to increase visibility and enable drivers to detect pedestrians and cyclists earlier.

(Source: Kwan I, Mapstone J. Cochrane Database Syst Rev 2006; (4): CD003438. Copyright © 2006, John Wiley and Sons.)
It was a bright, sunny Thursday in July 2006, and the radio in my office was busy, indicating lots of activity out on the flightline. Using it as an excuse to escape some paperwork for a while, I went out and joined the expediter in his truck, cruising the flightline. On one aircraft, two crew chiefs were changing a tire. The right landing gear was supported by an axle jack, meaning the jack ram and its reservoir were pressurized. I looked over at the tire-change job as we drove slowly past, and I noticed some spray coming out of the axle jack. One of the two crew chiefs also looked at the jack to see what was happening, just as the quick disconnect (QD) fitting from the axle jack pump/reservoir to the jack ram completely gave way in a huge cloud of vaporized hydraulic fluid. The crew chief got a face full of it. I jumped out of the truck with the eyewash bottle (glad we had one handy) and ran to the aircraft, fully expecting that we would be hauling the crew chief to the emergency room with hydraulic fluid in his eyes. When I got there, he was removing the safety glasses he had been wearing, and was wiping off his face. Other than a messy uniform, he was fine, thanks to the safety glasses. Eyewash or any medical care was not needed, much to my (and the crew chief’s) relief. Safety glasses are very good things! They were the difference between some momentary excitement, cleaning up a mess, and a little more complicated task than bargained for, or having a serious mishap, including possible blindness. You can bet I’ve used this example to preach the benefits of PPE to my folks.

Investigation indicated that the QD fitting was cracked and had failed. The two crew chiefs were doing everything right, safely, by the book, and stuff still happened.

One additional note on this incident is that the safety glasses weren’t even required by the job guide for that task. They were safety sunglasses, issued by the unit. I never asked the crew chief if he considered the safety aspect when he chose to wear them, or if it was just because it was a bright day and the sunglasses were free. I’m just glad he had them on that day.

The two lessons I see here are for people to use their PPE even if it may not necessarily be required for a task, and for supervisors to do all they can to provide PPE for their people and encourage their use, even if it means spending limited unit funds. Workers can’t use what hasn’t been provided, and safety isn’t a luxury.
"Dad! DAD! The House Is On Fire!"
“Dad! The house is on fire!” It was a lazy Saturday morning and I had just finished dressing when these words shocked me out of my reverie. I rushed downstairs.

My wife awoke before I did that morning, and had decided to melt some paraffin wax on the stove for a hobby project. You already know where this is going, don’t you?

She was trying to heat the paraffin carefully, but it caught fire anyway. Quickly using the small Freon fire extinguisher we kept by the stove, she attempted to put it out, but every time she stopped spraying, it flared up again. Concern for burning the cabinets prompted her to move the pan to the sink, but the stress of the moment caused her to forget the lace window curtains above the sink.

I entered the room just in time to see the curtains catch fire. I grabbed the chemical fire extinguisher from its mount by the doorway, and it did its thing. Powder was everywhere, but the fire was out. There was a small amount of smoke damage to the ceiling and the loss of the curtains, but otherwise, no harm done. However, the story doesn’t end there.

As soon as we realized we were safe, we looked around and then at each other.

“Where are the kids?”

We called for them, and on a hunch, I looked outside. There they were, all gathered around the mailbox at the street. You see, we have a family emergency plan. Our meeting place in the event of a home emergency is the mailbox by the street. Right after our 9-year-old daughter warned me of the fire, she gathered her three younger siblings and herded them all out to the mailbox. Had we not been able to contain the fire, everyone else was already safe outside. Our family emergency plan worked (except for Mom and Dad forgetting to trust the kids to follow it).

What did we learn from that experience?

- We never replaced the Freon fire extinguisher. The chemical type is our choice of defense now. You should consider all the aspects of each type of fire extinguisher so you understand their limitations.
- Discuss what to do in various fire scenarios. People often act irrationally under the stress of a true emergency.
- Have a family emergency plan and, more importantly, PRACTICE it. We even try to practice setting off the fire alarms in the middle of the night, occasionally.
- As the children have grown and left home, we encouraged them to have their own family emergency plan.
The following short articles are derived from actual Air Force Class C and D mishaps. Our intent is not to make light of anyone’s pain, even if it is sometimes self-inflicted; it’s the questionable decisions and behavior we’re pointing out. This is just a different approach to getting people to read—and think—about safety. Check ‘em out—you just might get a laugh, and learn something, too.

**The Multi-purpose Tool Is Not For That Purpose**
Those multi-purpose tools can be really handy. Say, for example, that you’ve just bought a new entertainment center, and you’re setting out to put it together. The first step is to cut away the plastic wrap surrounding the box. The tool’s serrated knife will handle that task in a jiffy. That blade is so good at cutting that it doesn’t stop with the plastic—it goes right for your wrist. This part of the procedure is not addressed in those inscrutable assembly instructions. Taking a break from the project, you depart from the scene to the friendly confines of the nearest medical center, where you get five stitches as a token to remember the occasion.

**Hammer Time**
An aircraft maintainer is removing some sheet metal from a big bird, using a hammer and chisel. All’s well until her left hand slips, putting the innocent thumb smack (and I do mean “smack”) in the path of the aforementioned hammer. Tool and tissue then collide, resulting in a colorful bruise, and I would think, some colorful language, too.

**Thumb-thing’s Wrong**
In this tale, another aircraft maintainer trashes another thumb. He’s using a drill to install a shim on a pylon rib. Sadly, this task has nothing to do with barbecue. The shim offers too little resistance, and the hungry drill bit chews right through it and his thumb. After this unintended grand opening, he gets a week of limited duty.

**Food Coma Follies**
Sometimes after a good meal, a nice nap is just the thing. That’s what our subject is thinking. After eating lunch at his desk, the guy dozes off. His visit to the Land of Nod is rudely interrupted, though, when he slips out of the chair, straining his back.

**Porta-Pow!**
The extra-manly way to enter a portable toilet is to punch your way in. You get that satisfying sound, and impress the bystanders with your physical prowess. In this case, you also get a fractured hand. Those doors are no pushovers, you know.

**Getting to The Far Side**
This story reminded me of a Far Side cartoon by Gary Larson, in which a young boy is standing at the entrance to a school for the gifted. He’s pushing on the door with all his might, trying unsuccessfully to get inside. The door is clearly marked “Pull.” In this case, an employee is seeking access to a controlled facility. He puts his ID card into the card reader, and goes to push his way through the turnstile. Apparently, there’s a hiccup in the system, because...
the turnstile stays where it is, while his advancing noggin plows into it. Chalk up yet another score for inanimate objects, in their age-old conflict with humans.

**Tool-Using Human**

Humans are such ingenious inventors and users of tools. Take the guy who’s using a folding knife to open a bottle. Why is he opening a bottle this way? Because he can. Sort of. During this delicate operation, he’s surprised to discover that the blade folds up before he’s ready to put it away, slicing a reminder into his hand.

**A Whiz at Work**

When nature calls, we have to answer. Such is the case with this worker, who’s about to enter the restroom when locomotion suddenly becomes impossible. That is to say, she slips, sustaining a fractured upper arm and sprained ankle. A check of the area rules out a wet or slick floor, and a check of the worker rules out dizziness or dysfunctional footwear as factors. As Sherlock Holmes might say, “The mystery is afoot.” The unknown cause means that this incident remains in the files of “Unsolved Mishaps.”

**The Dangers of Hanging Out**

A couple of otherwise unoccupied troops are hanging out in their dorm’s dayroom. They’re young and energetic, and left to entertain themselves. (How many mishaps begin this way?) Soon, the idle hands are engaged in tossing a plastic soda bottle back and forth. It’s a lot of fun until somebody gets hit in the eye. A quick trip to the ER for a checkup leads to a diagnosis that sounds really bad in clinical terms, but the patient gets much better after three days on quarters.

**The Eyes Have It**

We in the publishing business truly appreciate readers taking a keen interest in our products. It makes us feel needed. We do hope, though, that the young lady in this tale isn’t reading *Road & Rec* when she goes to get a better look at the material, and sticks herself in the eye with the paper. The ER doc calls it a corneal abrasion. We call it yet another action to avoid, if you don’t want to be publicly mocked in this column. No offense; we kid because we love. After all, if people weren’t hurting themselves like this, we’d have no minor mishaps to make fun of in this magazine.

**Melon Masher**

Even if you’re not on the softball field, you can still be a team player, by sitting in the stands and cheering for your team. That’s the case with our subject, who has the misfortune of being a victim of the space-time continuum, physics and geometry. In other words, he’s in the wrong place at the wrong time. A foul ball flies back behind the spectator stands, bounces off a power pole, and smacks Booster Boy right on the noggin. The resultant impressive swelling earns him a free ride to the hospital for a once-over by the doc.

**Rampaging Rodent**

Let’s say you have a pet gerbil that you’re taking out of its cage. Let’s say the gerbil sees this as an opportunity to take a nip at your finger, for reasons known only to itself. You first say, “Ouch!” Then you say, “It’s no big deal,” until your finger becomes infected a few days later, and you need to go for some antibiotics to clear it up.
I will always remember May 30th, 2001. It was the summer of my junior year in college, and life was great. I had received a pilot slot through AFROTC and was beginning the long road to becoming a pilot. I had decided to start Introductory Flight Training that summer, because I just couldn’t wait any longer. I was flying the mighty Cessna 152, and appreciated the stable platform it provided. I was only a few hours away from my solo flight, and was catching on quick. I was scheduled to fly that afternoon, and the weather forecast predicted a beautiful day. My best friend was also going through IFT at the same time, and we spent our summer days working at a gutter-cleaning business he started, and the afternoons learning to fly. I went to bed that night thinking about what a great life I had—my only real job was to learn how to fly, and I loved it.

The ringing of the phone rudely awakened me. The news I received changed my life forever: My mom was dead. In a daze, I remember riding home with friends, and doing everything I could to keep my mind thinking about other things.

She was a great mom; somehow, she always had time to do the little things that made us appreciate her so much. She would write us letters, pack meals, and just make time to talk with us. I could go on for so much longer, but I believe everyone can think of their own mothers and the wonderful things they did. She was a great example for me and my brothers.

After what seemed like forever, we arrived at my parents’ house and received more details. She had gotten up early to go running, like she had been doing for the last 20 or so years. My
mom was in fantastic shape. She had run six
days a week for as long as I could remember.
Nothing could break her habit pattern, and
she loved to exercise. It calmed her mind and
prepared her for the hard work that being a
mother could be. She only made it about 100
yards from our driveway when she was struck
by an oncoming car and instantly killed.
The motorist was distracted by something he
had dropped in the car, and allowed himself
to drift right of his lane and collide with her. I
never found out his name or what happened
to him. Somehow, I just couldn’t handle it at
the time, and besides, it won’t bring my moth-
er back. I don’t think that he was much differ-
ent from you and me. How often do we allow
ourselves to become distracted while we’re
driving? Every one of us is guilty of it, wheth-
er fiddling with the radio, the cell phone, or
taking care of the kids. A little slip in concen-
tration can be fatal. I do not believe that the
man driving the car started out his day think-
ing that he was going to kill someone; he and
my mom were just victims of carelessness.
When we read these articles, we always
think, “It won’t happen to me or my loved
ones,” but it can and it does. So many people
fear getting onto an airplane, but far more
people are killed every day on America’s
roads. It sure hurts a lot when one of those
statistics is near and dear to your heart. My
mother was a strong believer in God, and I
have no doubt that she is in heaven, but I sure
wasn’t ready for her to go. At age 57, she had
a long life ahead of her.
Since the accident, I’ve paid more attention to
the way I drive. I don’t allow myself to become
distracted, and I try to observe the speed limit.
If only that driver had been doing the same,
maybe my mother would be here today.
So, there I was, as every good safety story starts, after I wrecked my motorcycle and went DNIF (Duties Not Involving Flight) for three months. Like many of you, I’ve read all of these safety articles and attended the briefings, learning about bad things that happened to people and thought, “Glad I’m not that guy.” Inevitably, this person wasn’t doing something he was supposed to do and/or didn’t have on the correct safety equipment. Then the article/briefing takes every opportunity to tell you how it could happen to you, and tries to prove to you that safety equipment and proper training would have saved him. I usually stop reading at about that point. Therefore, this is an article that is not entirely like that. It has a similar, but different, message.

I’m 28 years old and fly the mighty Viper (F-16). I’ve been riding motorcycles for more than 10 years, and consider myself a skilled and experienced rider. My bike is a 2005 Honda 919. It’s what they call a “naked sport bike.” It is a 900cc crotch rocket without all the fairings. Since I bought the bike in July of ‘05, I’ve put more than 4,000 miles on it, so I am very familiar with how the bike handles and its power. I’ve completed a motorcycle safety course and have my motorcycle license. At the time of my accident I was wearing what I normally ride with—a full-face DOT-approved helmet, a motorcycle jacket with built-in armor, thick leather motorcycle gloves, jeans, and leather boots. The reason I tell you all this is so you don’t think this is a standard story about a 19-year-old wearing shorts and a T-shirt, with too big of a bike and no business on it.

It was a nice February ‘06 Super Bowl Sunday. Since I had some stuff to do after the squadron party I was going to, I decided I would ride my bike because I wouldn’t be drinking. I rode to the party to watch the game. Just to be clear, I had one beer right when I got there. I was at the party for about four hours, so alcohol was not a factor.

After the game was over, I put on all the gear and jumped on the bike. As I pulled out of the driveway, I put on the gas as I normally do, not thinking this ride would be different from any other ride. I couldn’t have been more wrong. As I put on the gas, the back tire immediately began to squeal. This doesn’t inspire a good feeling. Since a motorcycle doesn’t have four wheels, when that happens, the back tire starts to move to the left, as mine did. When the back tire caught traction, it sent the bike into a violent oscillation that I wasn’t able to recover. A few seconds later, I was thrown head-first from the bike. The bike kept going, falling to its side and skidding to a stop. I ended up doing a dive roll upon hitting the ground.

As I lay on the ground watching my bike skid to a stop, I was in utter disbelief. “Did that really just happen?” I went to pick up my bike and realized that there was a much bigger problem than my bike. I couldn’t lift the bike because I had broken my right wrist. Some buds picked up the bike and another took me to the emergency room.

By the next afternoon, I was released from the hospital after surgery to install a pin in my broken wrist. I was in a cast for six weeks, and went through three months of rehab to get a functioning wrist again. I was DNIF for three months because of this accident. As a pilot, this was obviously not a good thing, but I’m lucky that was the worst of it.

After the accident, I looked at my equipment and realized it could have been much worse. The back of my helmet was cracked. The side and the chin were really scraped up. Even with a full-face helmet, I had a small cut on my chin. The right shoulder of my jacket had a cut in it and the sleeve was scuffed up. My right glove had a hole in it. My boots were scraped up and I had a small scrape on my hip. Now that I’m back to flying again, I believe all that “safety gear” really made a big difference.
This sounds like the standard safety article. This one is different because I was doing everything right. All the safety squares were filled and I wasn’t doing anything stupid. If that is the case, then how did it happen? There may have been something in the road I didn’t see, but I don’t really know. Whatever the reason, it happened even though I had taken every precaution to preclude something like this from occurring.

As much as I hate to admit it, there’s some rhyme behind the reason. Before this accident, I wore all that stuff because I had to, and because I knew I would be up a creek without a paddle if something happened and I hadn’t covered the Air Force safety requirements. I’m sure that statement is going to make someone cringe, but that’s why I’m writing this article. I want to get this point across: It can happen to you, and probably when you least expect it; on the short trip, where you think it will be fine.

I say this with deep sincerity: take the extra few moments to put all that stuff on. I’ve always done it before, but now I do it knowing why. I learned the hard way why it’s important. No matter how good you are, you can’t control everything. So just wear the stuff; it’s not that bad. Ask yourself if the risk of not gearing up is really worth it, because you think you don’t look cool or you’re going to be a little hot. I can tell you, it is not. I’ll have a messed up wrist the rest of my life, but that surely is a lot better than the much grimmer alternatives.
During the first quarter of Fiscal Year 2007, the Air Force experienced 17 fatalities. Ten involved motor vehicle operation; four motorcycles and six four-wheeled vehicles. Others included two pedestrians, three sports and recreation (two on-duty and one off-duty), none in combat training, and two miscellaneous off-duty.

Most mishaps are preventable. Risk management plays an important role in preventing mishaps. The wingman concept must be taken seriously and can be an effective tool in our fight to reduce mishaps.

Below are some mishaps that could have been prevented with proper risk management.

Bad Habits, Fatigue and Speed Don’t Mix
An Airman completed basic training and had checked in at his new duty location. His specialty school would be about a year. Upon his arrival at
his new training location, he received the required traffic safety briefing. One Saturday, he stayed up partying until about 2 a.m. The next day, at about 10 p.m., he dropped off his wife at a restaurant, then returned home and studied with a friend until she called at about 12:30 a.m. The Airman told his friend he was tired, and looked fatigued, but he still drove about 6 miles to get his wife. At about 12:45, the Airman lost control of his vehicle and struck a guardrail, causing the vehicle to roll over several times and ejecting the Airman. He landed on the railroad tracks about 100 feet away. His legs were shattered and he suffered massive, fatal head injuries. The highway patrol estimated his speed at impact at more than 100 mph. The Airman was not wearing a seatbelt. Toxicology tests were negative. Peers indicated that the Airman did not wear his seat belt on a regular basis.

**Lessons Learned:**

Extreme fatigue and vehicle operation don’t mix. The wingman concept includes off-duty activities, as well. When your wingman fails to make rational decisions, it’s time for you to intervene.

**Drinking and Walking: A Bad Combination**

After paying a large bar tab on a cold fall night, an Airman left a club at about 1:50 a.m., got in his car and drove off. After he drove about a quarter-mile on a dirt/gravel road, the vehicle left the road, entered a marshy area and became stuck. The Airman got out and began to walk through the marsh, toward the club. When the Airman did not arrive at home, his vehicle was found near the club. Family members notified law enforcement officials and a search began. The Airman’s body was found in the marsh four days later. The cause of death was drowning due to hypothermia.

**Lessons Learned:**

Drinking, mixed with any activity, is never a good combination. In such a case, where a person is unable to make rational decisions, others should intervene and make a solid judgment call. Blame is not the answer; knowing when to allow a person to leave an establishment unescorted is.

**Physical Conditioning**

During physical training, an Airman collapsed while running on a treadmill at the base gym, and later died at a local hospital. He was performing a vigorous cardio workout and fell, striking his head on the floor. Witnesses attempted resuscitation until emergency services arrived. Medical authorities later determined that the Airman suffered a cardiac arrest due to undiscovered coronary-artery disease. His use of herbal dietary supplements was not a factor in this mishap. However, he had gained about 30 pounds over a year, and was considered obese by the Air Force. The Airman had been treated for tobacco use, but was not identified as at risk of heart disease.

**Lessons Learned:**

Being able to identify risk factors for heart disease is an important assessment all Airmen involved in physical fitness training must consider. If family history and other risk factors are contributors, engage with medical authorities before beginning or increasing workouts.
Why Is This Man Screaming?

He missed an issue of Road & Rec. Don’t let this happen to you! Subscribe to the Air Force’s quarterly magazine of ground safety. All you have to do is call DSN 246-1983, or e-mail afsc.semm@kirtland.af.mil. Just tell us your organization, mailing address, duty phone number, and the number of copies you want. That’s all there is to it!

“The Scream”, Edvard Munch, 1893