

ARMY GROUND RISK-MANAGEMENT INFORMATION

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BEAT
the
HEAT

SPECIAL HOT WEATHER ISSUE

CONTENTS

- 3 DASAF's Corner**
Decision Making at the Appropriate Level
- 4 Managing Heat Stress**
- 6 You Can Drink TOO Much Water**
- 7 Fluid Replacement Guidelines**
- 8 Protect Your Skin**
- 9 Boating Safety**
- 10 Boat Smart From the Start**
- 12 NCO Corner**
Sergeant's Time
- 13 POV**
Only a Few Seconds
- 14 Investigators' Forum**
Stick to the Plan
- 16 Training & Risk Management**
Mobile Training Teams Come to You...the Price is Right
- 17 Accident Briefs**
- 18 News & Notes**
Small Unit Guide,
AAFES Recalls Dehumidifiers,
Printer Recall
- 19 Bicycle and Helmet Safety**



BG James E. Simmons
Commander/ Director of
Army Safety

COL John S. Warren
Deputy Commander

LTC Scott G. Ciluffo
Publishing Supervisor

Paula Allman
Managing Editor

on the web
<http://safety.army.mil>

Blake Grantham
Graphic Design

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Decision Making at the Appropriate Level

The Army's risk management standard is making an informed decision at the appropriate level of authority. In some cases, we aren't meeting that standard. Units are doing a good job of identifying and assessing hazards, but young leaders—whose experience level is not as extensive as it should be for making medium or high-risk decisions—are sometimes making those risk decisions.

When I was the Assistant Division Commander (Maneuver), 1st Cavalry Division, Fort Hood, Texas, the CG asked me to take a look at risk management in the division. I took scenarios from the risk management chain teaching CD and asked several lieutenants to identify and assess the hazards, determine the level of risk—low, medium, high, or extremely high—and identify who had approval authority for the mission. Most of the lieutenants felt that they or their company commander had approval authority.

I swore the lieutenants to secrecy and gave the same scenarios to battalion and brigade commanders the following day. Battalion and brigade commanders identified and assessed the hazards and determined the risk level. They felt that the risk decision should be elevated to at least the battalion level for approval.

It's obvious that a disconnect existed with the risk decision authority between the lieutenants and the battalion/brigade commanders. Clearly, leaders at the platoon/company level should be given the opportunity to grow and the flexibility to make decisions so they can learn. But at the same time, they must know what their right and left boundaries are. Senior leaders must be involved in supporting and mentoring the platoon and company commanders, and deciding how far to let them go before reining them in.

The intent should not be to micromanage young leaders and stifle their learning and growth process. If the battalion's commander and command sergeant major takes the role of senior observer-controller, they can allow the learning, but STOP the process before the accident! In FY01, we had 10 Class A aviation accidents. Only one of those accidents had the battalion commander present during the planning, preparation, and execution of the training.

I have submitted my personal philosophy to you before and I do so again: ***Units that participate in tough, realistic training—with technically and tactically proficient leaders present—have significantly fewer accidents.***

Two key points to consider: First, if your unit's SOP isn't specific on who has approval authority for each level of risk, then it may need revision. Junior leaders should not have to decide if they have risk decision authority. Spelling out clearly in the SOP who has decision authority for low-, medium-, high-, and extremely-high risk missions is one means of making sure everybody knows their boundaries. Whether it's through the SOP or some other educational process, make sure the risk decision approval authority is clear.

Second, you may want to consider adding an extra step to your SOP. Once the risk decision level is reached, informing the next level in the chain of approval gives an extra look at the process.

Clearly defined risk decision approval authority for each level of leadership will help us ensure that we have combat-ready battalions capable of going out and conducting tough, realistic training without hurting or killing soldiers before crossing the line of departure. If we practice it every day, during every training mission, once we get into actual combat conditions, risk management will be an integral part of how we think and maneuver our way through situations as conditions change instantaneously.

Sometimes it's tough finding the right balance between mentoring/supporting and what some might perceive as micromanaging. It's not necessary to always be loved as a commander, but it's vital to always be respected for technical and tactical proficiency and competence. I challenge each of our commanders to set the professional example of being involved—by word and deed—because each young leader you mentor during the planning, preparation, and execution of missions is your investment in the future of our Army. 🇺🇸

Train Hard—Be Safe!

BG James E. Simmons

All heat injuries are preventable, but in order to prevent heat injuries, it is important to understand them. Heat stress is caused by the interaction of three main variables: the mission, the environment, and the soldier. Each has several variables of their own; together, they can set the stage for causing or preventing a heat injury.

Failing to consider the variables while planning, performing a risk assessment, or determining risk management steps will result in heat injuries.

Mission

How hard are the soldiers going to have to work; e.g., working in an air-conditioned office, building fighting positions at JRTC, or perhaps breaking track in a maintenance bay? What kind of uniform is required (sleeves up, full battle rattle, or MOPP gear)? What kinds of loads will they have to deal with (full ruck, patients on litters, or weapon and Kevlar only)?

Environment

This is the first thing most people think of. Unfortunately, it is often the only thing. How hot is it? How humid is it? Is there a lot of direct sun or is there a lot of cloud cover? Is there any wind or is it calm? What is the terrain like—grassy, jungle, desert, flat, or hilly?

Soldier

Are soldiers acclimatized? Are they able to get adequate rest? How about nutrition and hydration? Are the soldiers fit for the mission? Are any ill or on medications? Finally, have any had prior heat injuries?

Control measures

If you can't answer these questions, you won't be able to take the proper risk mitigation steps and prevent heat injuries. Successful prevention of heat casualties is more important to the unit than their treatment. So, what risk mitigation steps can be taken?

1. Monitor your soldiers! This is probably the most important step. If one soldier becomes a heat casualty, then it means that other soldiers are at risk. If soldiers appear to be dragging, the unit should be evaluated quickly! There's a good chance that they are more than just tired. Make sure special attention is given to soldiers who are ill, taking medications, or have had a prior heat injury.

2. Acclimatization. It takes up to two weeks to become acclimatized. When deployed, leaders must take this process into account when planning missions.

Managing

HEAT

STRESS

HEAT INJURY PREVENTION CHART

Hot-Weather Injuries

Sunburn

Cause

- Repeated exposures to hot environment (even on cloudy days).
- Depletion of body fluids.

Symptoms

- Skin is red and hot.
- Victim may experience headache or nausea.
- Blurred vision.

First-Aid

- Use sunscreen.
- Cover the body part that is being burned.
- Seek medical treatment if there is pain or blistering.

Heat cramps

Cause

- Heavy loss of salt through excessive sweating.
- Vomiting, diarrhea, or urination can make this, and all dehydration injuries, much worse.

Symptoms

- Painful muscle cramps.
- Pale, wet skin; dizziness; extreme thirst.

First-Aid

- Move the victim to shade and loosen clothing.
- Massage affected muscle.
- Frequent intake of water: a cup (8 oz) every 15-20 minutes, not to exceed 1 1/2 quarts per hour.
- Thirst is not an adequate indicator of dehydration.
- If cramps persist, dissolve 1/4 teaspoon table salt in one quart of water, and have the victim slowly drink at least one quart of the salt solution.

Heat exhaustion

Cause

- Prolonged exposure to hot conditions.
- Excessive salt depletion and dehydration.

Symptoms

- Profuse sweating, headache, tingling sensation in the extremities, weakness, loss of appetite, dizziness, nausea, cramps, chills, and rapid breathing.
- Skin is pale, cold, moist, and clammy. Victim might faint.

First-Aid

- Lay victim flat in a cool, shady spot.
- Elevate feet and loosen clothing.
- Pour water on victim and fan to cool.
- If conscious, have the victim drink at least one canteen full of cool water with the salt solution.
- If soldiers do not recover after an hour, evacuate to the nearest aid station or medical facility.
- It may be hard to distinguish between heat exhaustion and heat stroke, if in doubt, assume the worst and start treating the casualty as if it were heat stroke.

Heat stroke

Cause

- Prolonged exposure to high temperatures and failure of the body's cooling mechanism (when the body's temperature rises rapidly, the sweating mechanism fails and the body is unable to cool down).

Symptoms

- Mental confusion or disorientation.
- Throbbing headache; flushed, dry skin; nausea; and elevated body temperature.
- Lack of sweating in the heat.

First-Aid

- **This is the most serious hot weather injury! Heat stroke is a medical emergency and can lead to death! Get the soldier to a medical facility as soon as possible!**
- Start first-aid immediately. Move the victim to shade and cool with ice packs.
- If packs are not available, soak or douse victim with cool water. Do not immerse in ice water.
- Fan body and elevate feet.
- Do not try to give water to an unconscious victim.
- If medics or combat lifesavers are present, start intravenous (IV) fluids.
- Ensure cooling process is continued during transport to medical facility.

Comprehensive information about heat injury and prevention can be found at: <http://usachppm.apgea.army.mil/heat/>

3. Fluid intake. Soldiers should drink adequate fluids before, during, and after the operation or training exercise. During training, fluid intake should be at regular planned intervals to replace the water and salt lost through sweating (see Fluid Replacement Guidelines on page 7).

Remember, hydration is an ongoing process. Waiting until you've already begun exerting yourself to begin proper hydration is like jumping out of an airplane and saying, "Well, I really ought to put on a parachute." Sorry—it's too late.

4. Physical conditioning. Infections, fever, recent illness, overweight, fatigue, drugs (cold medication), older age, and previous heat injuries may increase the risk of heat stress.

5. Work schedules. If the tactical situation allows, heavy work and activities that require strenuous physical exertion (road marches/calisthenics) should be scheduled either for early morning or late evening. Avoid working in the direct sun whenever possible.

6. Loose-fitting clothing. Wear lightweight clothing that allows circulation of air and enhances the cooling evaporation of sweat. If the tactical situation allows, commanders need to consider permitting unblousing of boots, unbuttoning of BDU shirts, or other measures. Removal of BDU

shirts should be done with caution, as this may increase the risk of sunburn.

7. Wet bulb globe temperature (WBGT). The WBGT index is the best means of evaluating environmental heat. Commanders and NCOs must monitor the heat index, and if tactically possible, modify activities and monitor soldiers accordingly.

8. Recognize the early signs of heat injuries, perform first-aid, and have a good, workable, and rehearsed evacuation plan (see Heat Injury Prevention Chart on page 5).

Bottom line: Although commanders and supervisors are responsible for heat injury prevention, every soldier can also do his or her part. The buddy system becomes even more important—each soldier should be an extra set of eyes and ears for the supervisors and commanders. As mentioned, all heat injuries are preventable, but like everything else, a team effort is always the best way to "beat the heat."

Editor's note: Comprehensive information about heat injury and prevention can be found at: <http://usachppm.apgea.army.mil/heat/>.

POC: LTC Robert Noback, Command Surgeon,
DSN 558-2763 (334-255-2763),
robert.noback@safetycenter.army.mil

You Can Drink Too Much Water

The flip side of dehydration is overhydration—or simply, drinking too much water too quickly. When sodium is lost through sweating and water is drunk as the replacement fluid over a period of hours, the sodium left in the blood can become diluted.

This can cause a condition called "hyponatremia," which can lead to damage in certain kinds of tissues in the body. Changes are most noticeable in the nervous system where seizures, coma, and even death can occur.

Recognizing overhydration or hyponatremia is challenging because the symptoms may resemble those of heat stroke or heat exhaustion. Early symptoms can include confusion, nausea, fatigue, muscle cramps, and weakness. More serious symptoms include vomiting, muscle twitching, delirium, seizures, and coma. The main difference between heat stroke and heat exhaustion, when compared to overhydration, is that overhydration doesn't cause the victim's temperature to rise. Because overhydration can be deadly, the final diagnosis must be made at a medical facility where the victim can be properly treated.

If all of this talk about hydration and sodium balance sounds intimidating, relax. To protect yourself, drink one canteen (one quart) of water per hour when working in the heat. You can drink a bit less if you're not exerting yourself as hard or if the heat stress, as measured by the wet bulb globe thermometer (WBGT), is light. If in doubt, check with The Surgeon General's water consumption guidelines outlined on page 7.

FLUID REPLACEMENT GUIDELINES FOR WARM-WEATHER TRAINING

(Applies to Average Acclimated Soldier Wearing BDU, Hot-Weather)

Heat Category	WBGT Index °F	Easy Work		Moderate Work		Hard Work	
		Work/Rest*	Water Per Hour	Work/Rest*	Water Per Hour	Work/Rest*	Water Per Hour
1	78-81.9	No limit	½ qt	No limit	¾ qt	40/20 min	¾ qt
2 (Green)	82-84.9	No limit	½ qt	50/10 min	¾ qt	30/30 min	1 qt
3 (Yellow)	85-87.9	No limit	¾ qt	40/20 min	¾ qt	30/30 min	1 qt
4 (Red)	88-89.9	No limit	¾ qt	30/30 min	¾ qt	20/40 min	1 qt
5 (Black)	>90	50/10 min	1 qt	20/40 min	1 qt	10/50 min	1 qt

* Rest means minimal physical activity (sitting or standing) and should be accomplished in the shade if possible.

Note 1: The work/rest times and fluid replacement volumes will sustain performance and hydration for at least 4 hours of work in the specified heat category. Individual water needs will vary \pm ¼ quart per hour.

Note 2: CAUTION: Hourly fluid intake should not exceed 1½ quarts. Daily fluid intake should not exceed 12 quarts.

Note 3: Wearing MOPP gear or body armor adds 10°F to WBGT Index.

Examples:

Easy Work	Moderate Work	Hard Work
<ul style="list-style-type: none"> • Walking hard surface at 2.5 mph, <30-pound load • Weapons maintenance • Manual of arms • Marksmanship training • Drill and ceremony 	<ul style="list-style-type: none"> • Walking hard surface at 3.5 mph, <40-pound load • Walking loose sand at 2.5 mph, no load • Calisthenics • Patrolling • Individual movement techniques; i.e., low crawl, high crawl • Defensive position construction • Field assaults 	<ul style="list-style-type: none"> • Walking hard surface at 3.5 mph, >40-pound load • Walking loose sand at 2.5 mph with load

Note: Soldiers who are overweight, dieting, or past heat casualties are more prone to heat injuries. As a result, their activities must be closely monitored.

PROTECT YOUR SKIN

If all sunburns were reported, they would probably be the most common heat injury. The simple fact is that sunburn is just that—a burn, and really no different than any other thermal

burn. In the worst cases, you can experience severe blistering. If a large area is burned, you can get fever, infections, and wind up in shock.

A soldier with a minor burn could have serious consequences, especially if the burn made it hard to use or wear required equipment. Let's face it, trying to carry a ruck with a burn on the shoulders and back isn't really going to be much fun.

UVA vs. UVB

Sunburn is caused by exposure to ultraviolet (UV) light. The UV light from the sun that reaches the earth is either UVA or UVB. UVA has a longer wavelength than UVB; UVB is the more dangerous of the two. The amount of UVB that reaches the surface of the earth is variable and depends on many factors; for example, exposure increases with higher altitude and being closer to the equator. Sand and snow reflect light, thus increasing exposure.

On the other hand, ordinary window glass filters out almost all UVB, as will smoke and smog. For the tanning enthusiast, sunlamps and tanning beds are mainly UVA, but there is still some UVB, so they are not completely safe.

It's no surprise, but the lighter your skin, the more likely you are to burn. If you have naturally blonde or red hair, you are more at risk. Some medications may also increase your risk, as can some colognes, perfumes, and soaps.

Aside from sunburns, you can run into other problems. Long-term exposure to sunlight ages the skin prematurely and can lead to wrinkled, mottled, or discolored skin. Actinic keratoses, which are pre-cancerous, are much more common. Every year, there are about 400,000 new cases of basal cell skin cancer, 80,000 new cases of squamous skin cell cancer, and 25,000 new cases of malignant melanoma. Although basal cell is usually cured by removing the cancer, squamous cell and malignant melanoma can spread—there are around 6,000 deaths each year from malignant melanoma alone.

Obviously, the best way to avoid sunburn is to

avoid exposure. No, that doesn't mean you can't go outside. Like anything else, you can take some preventive steps.

- **Cover up.** If you can prevent the sun's rays from getting to your skin, it is harder to get burned. Be careful, it is possible to get burned through some light fabrics.

- **Limit exposure.** Hitting the beach for 8 hours a day after a winter at Fort Drum probably isn't a real good idea. Work up gradually. Start with not more than 30 minutes and work up from there. If you do go outside in most of the U.S. and similar latitudes, UVB is increased between 10 AM and 3 PM. Don't think you're safe in a pool. Often the water just cools the skin enough so that you don't notice you are getting a burn. And don't let an overcast day fool you—clouds aren't much protection either.

- **Use sunscreen.** All sunscreens are not created equal and all suntan lotions aren't sunscreens—you have to read the labels. Look for 5 percent para-aminobenzoic acid (PABA). Sunscreens with PABA should be put on 30 to 60 minutes before going into the sun so that it will have time to bind to the skin, so it doesn't wash off with swimming or through perspiration. Look for a sunscreen with an SPF of at least 15, though some common sense is in order. Remember, the higher the SPF number, the better the protection. An SPF 15 is probably fine to use if you are mowing your lawn on a cloudy day, but not near enough for a full day of volleyball at the beach. If you are allergic to PABA, there are other sunscreens; look for anthranilate or cinnamate; another is benzophenone, but this works better for UVA. Zinc or titanium oxide creams can also be used.

If you do get a burn, get out of the sun! Cold water compresses are one of the best first-aid measures to relieve pain. Over-the-counter steroid creams aren't really useful, but analgesic ointments or sprays may be. Be careful, these can sometimes cause allergic reactions.

There are a lot of folk-remedies for sunburn, whether they work or not is a topic for debate. One thing about them is certain, however, if the skin is broken or if there is blistering, don't put things you don't know about on the burn! When in doubt, check with the medical folks.

Sunburn is preventable. You only have one skin, and it has to last a lifetime—protect it! 🧢

POC: LTC Robert Noback, Command Surgeon,
DSN 558-2763 (334-255-2763),
robert.noback@safetycenter.army.mil

BOATING SAFETY

As leaders, we perform POV inspections before a long holiday to ensure our soldiers' vehicles are in proper operational order and have all the required safety devices. However, we seldom inspect our soldiers' personal watercraft (PWC) with the same enthusiasm.

If your soldiers own any type of PWC, make sure it is also inspected and ready for the coming summer months. Set a day aside to have them bring in their boat for inspection. Ensure all required safety devices are installed and working properly. A sample checklist to assist you in your inspection is provided to the right.

You can check with your post outdoor recreation office regarding their boat rental policy. Inform your soldiers that when renting boats, they must have the required safety equipment mandated by that state to operate the boat on the state's waterways. Most of the time, rental equipment is in pretty good serviceable condition, so inform your soldiers to look at it for any obvious problems before signing it out. This will help them enjoy the day on the water without complications.

Contact your local state marine office for any additional watercraft laws or requirements for the area your soldiers will be boating. Some states may require individuals to have a boater's safety class and card to operate a watercraft. For more information, check out these web sites: <http://www.boatinglaws.com> and www.safeboatingcouncil.org/. 

POC: MSG Windley L. LaBorte, Risk Management Integration Division, DSN 558-3530 (334-255-3530), windley.laborde@safetycenter.army.mil

BOAT INSPECTION CHECKLIST

NAME: _____ DATE: _____

BOAT REGISTRATION: _____ STATE ISSUED: _____

OPERATORS LICENSE NUMBER: _____

STATE ISSUED: _____ EXP DATE: _____

TRAILER CHECKLIST

	YES	NO
• Trailer Condition	_____	_____
• Trailer Lighting (Operational)	_____	_____
• Rollers (Serviceable & Operational)	_____	_____
• Tires (Serviceable)	_____	_____
• Trailer Hitch (Serviceable)	_____	_____
• Safety Chairs	_____	_____

BOAT CHECKLIST

• State Numbering Display	_____	_____
• State Registration	_____	_____
• Personal Flotation Devices (PFDs)	_____	_____
• Throwable PFD	_____	_____
• Visual Distress Signals	_____	_____
• Fire Extinguisher	_____	_____
• Ventilation	_____	_____
• Backfire Flame Arresters	_____	_____
• Sound Producing Signaling Device	_____	_____
• Navigational Lights (Operational)	_____	_____

NOTE: This is just an example of a boater's checklist. Check with your state marine office and see if your state requires any special equipment for safe boat operation.



BOAT SMART FROM THE START

Before you know it, summer will be here and everyone will be taking their boats out on the water. There will be all kinds of boats—bass boats, speed boats, sail boats, canoes, kayaks, and jet skis—all have become an increasingly popular recreation activity. Unfortunately, soldiers continue to be hurt and killed in boating accidents caused by collisions, falling overboard, capsizing, swamping, and grounding.

Operating a boat is more complicated than driving a car, so the potential for hazards increase. Victims of most boating accidents drown because they found themselves in the water unprepared. Once in the water, a personal flotation device (PFD) is the boater's first and best line of defense against drowning. Many PFDs tend to be bulky and hot, and are therefore disregarded by the boater who is more interested in his macho image than in his safety. Wearing a PFD can mean the difference between rescue and drowning.

Most recreation boat drowning accidents occur close to a shoreline, where other people are available to help. The PFD could keep the boater in a floating position until rescued.

Alcohol is prominent in recreational boating accidents. Operating a boat while intoxicated is illegal and dangerous. Most states define impairment at .10% blood alcohol content (BAC). However, even lower levels of blood alcohol may affect a person's balance, vision, or judgment. This can be especially dangerous when on the water. Alcohol also tends to encourage risk-taking and dulls the recognition of foolish behavior. Mixing alcohol, boats, and water is a lethal cocktail. The following is a good example:

A soldier, his fiancé, and several other friends were at a lake picnicking and drinking beer. Some played in the water near the shore while others rode across the lake in a 4-man inflatable raft. A group of men rode first, followed by women and children.

Several times during the afternoon, the soldier was asked if he wanted to ride. He declined each time, explaining that he could not swim. The soldier had recently attended a safety briefing that included the hazards of swimming and drinking and other water safety hazards. He had also completed water

safety instruction and had participated in rafting operations during Ranger Camp.

Late in the afternoon, the soldier was asked once again if he wanted to ride in the raft. His fiancé decided to go, so the soldier finally agreed to go along. He, his fiancé, and three other men got into the 4-man raft and paddled across the lake (about 300 meters) to the swimming area and turned around to come back.

They were more than halfway back when they passed three women on air mattresses. Two of the men started flirting and splashing the women, then they started jumping from the raft to the air mattresses.

The soldier became nervous, and his fiancé started trying to paddle toward shore. The raft, however, began to go in a circle because one of the jumpers had returned and was hanging onto the side.

The other jumper then returned and tried to climb into the raft. The raft flipped over, throwing the three remaining passengers—including the soldier and his fiancé—into the water.

The soldier grabbed his fiancé, but couldn't hold on. He went under water and didn't resurface. His body was recovered 4 days later.

Wearing a PFD can mean the difference between rescue and drowning.

How did it happen?

When planning their picnic, these soldiers and their friends never gave safety a thought. They spent the afternoon drinking beer, and they had no safety equipment aboard the raft. During the entire afternoon, the whole group went without life jackets, and they continually overloaded the raft. In addition, the horseplay that ended up upsetting the raft led directly to the soldier's death.

After consuming several beers, the soldier let alcohol override his initial good judgment. Since he had paddled that same type of raft in Ranger Camp, he thought he could handle a ride across the lake and back.

How can we prevent it?

Sometimes it seems that it's absolutely impossible to keep soldiers safe. We brief them on the hazards; we give them all the information we have to help them help themselves, and they don't use it. It's these times that we seem to be fighting the "lessons we refuse to learn." Soldiers don't go out with the intention of having an accident. Accidents occur

Leaders need to continually stress—

◦**Water safety during the summer season. Place special emphasis on the hazards of water activities and the possible consequences of horseplay.**

◦**The importance of safety equipment such as life jackets, especially for weak or nonswimmers. In addition, stress the importance of not overloading any equipment.**

◦**The hazards of mixing alcohol with recreational water activities. The mixture can end up being anything but fun.**

◦**That soldiers are their brothers' keepers and they must take care of each other and take care not to put others in danger through thoughtless actions.**

when victims are not familiar with the hazards and controls, or when they are ignored. The risk-management process helps one to identify hazards and take steps to eliminate risk. This process is commonly used in military operations, but can also be applied to recreational water-related activities as well.

So, what can leaders do?

Don't give up. Leaders must implement risk management on every mission, on and off duty. Just because you don't look at a day on the water as a "mission," you can still use this tool for your protection, as well as the protection of your family and friends.

Apply risk management to boating

1. Identify the hazards. Hazards are dangerous conditions that could be encountered while performing a task or mission. For example, what are the hazards in taking a boat out? Hazards could include: cold water, strong currents, high wind and waves, and unseen debris in the water. Reviewing other facts such as boat capabilities, operator and passenger skills, and condition of equipment can identify other hazards.

2. Assess the hazards. Each identified hazard must be assessed to determine the probability of it causing a problem and the severity of the consequences should such a problem occur. For example: calm, warm water, a sturdy boat, and a seasoned crew indicate minimal risk with few controls needed. However, a strong current, cold water and high waves, coupled with a leaky boat

and inexperienced boaters indicate a much higher risk. Such conditions increase the likelihood and severity of an adverse outcome, resulting in losing directional control, getting lost, colliding, swamping, capsizing, hypothermia, or drowning. The hazard with the highest risk determines the risk for the operation: low, medium, high, or extremely high.

3. Develop controls and make a decision.

Controls for low risk may be as simple as conducting a short safety briefing and ensuring everyone is wearing PFDs. More strenuous controls would need to be enforced for high-risk operations. The boat operator would provide each person with guidance on what hazards to look for and instructions on what to do to deal with them.

If the operator's instructions are on target and are effectively implemented, then the risk should be acceptably low enough to have a safe boating experience.

4. Implement controls. The controls established are put into effect by the boat operator.

5. Supervise. Supervision goes beyond ensuring that people do what is expected of them. It includes following up during and after an action to ensure that all went according to plan, reevaluating the plan or making adjustments as required to accommodate unforeseen hazards, and incorporating lessons learned for future use.

Have a safe summer! 

POC: MSG Windley L. Laborte, Risk Management Integration Division, DSN 558-3530 (334-255-3530), windley.laborte@safetycenter.army.mil

Sergeant's Time

As a Field Artillery soldier, I was introduced to "Sergeant's Time" in 1990 at Fort Sill, OK. Up until then, I had no idea what Sergeant's Time really was. Let me explain.

Sergeant's Time is when sergeants (section chiefs) were given a scheduled time, normally once a week during the first four hours of the day, to train his soldiers for wartime. That training could consist of first-aid, combat training, weapons qualification, aircraft or enemy recognition, or time on unit equipment, landlines, and so forth.

Many soldiers, like myself, thought this was a waste of time—especially once the information and training material became redundant.

After training at Fort Sill, I was deployed to Germany. As a sergeant, I was put into a section chief slot and required to train my soldiers during Sergeant's Time. Since I had already received training on most of the subjects in the Soldier's Manual at Fort Sill, I was excited about my opportunity to train others what I had learned.

Soon I began to think as many other Section Chiefs did, that we didn't need to teach a subject that we had already trained on. But, we did it anyway. We trained the same subjects over and over, and over again. At times, it did become a bit boring to my soldiers. As for me, I knew the subjects well enough that I could instruct without the manual.

I attempted to make the training more interesting by doing such things as going into a neighboring community for map reading, playing card games with the deck aircraft/vehicle recognition cards, and so on. We continued to present the material through the TASK, STANDARD, and PERFORM method prescribed in the Soldier's Manual.

Yet, it still seemed that we all tried to get out of Sergeant's Time when it came around, or just tried to get through those four hours as painless as possible.

Several months later, on 19 December 1991, our company (B Btry, 2nd/20th Bde, FA) was deployed to Saudi Arabia in support of Operation Desert Shield, which soon escalated into Desert Storm or the Persian Gulf War. There was no time for any Sergeant's Time training. It was during this deployment that I realized that Sergeant's Time was a lifesaver.

A soldier was injured while lighting a submerging tank heater*. As many know, this type of equipment

is dangerous if you don't know what you're doing...as this soldier found out when he attempted to light the heater and was thrown to the ground when the tank exploded.

There was no fire, but the impact of the explosion was enough to knock the soldier out cold. Nearby soldiers came to his rescue and began CPR (first-aid training from Sergeant's Time). Without stopping to ask for help or to read instructions, they provided immediate help to the soldier, then got medical assistance. Luckily, it wasn't fatal, he was just bruised.

It was later attested by the soldiers who were first on the scene of the accident, that it was the training they had received during Sergeant's Time that prepared them for what they had to do during an emergency. They said they never thought about what they should do, they just did it. They were confident in their abilities because they had practiced it countless times before, until it was literally drilled into their heads and became second nature to them.

If it wasn't for Sergeant's Time (peacetime training), many soldiers would not have been prepared for wartime reaction. Sergeant's Time wasn't just for the soldiers, it was for the trainers as well. I should know, because those were my soldiers who provided first-aid to me—the injured soldier.

***Author's note: A submerging tank is a Heater Immersion (old type), NSN 4540-00-2666835, that was used to heat water. We used it to heat our MREs (Meals-Ready-to-Eat). It consisted of a 36-inch galvanized trashcan that was filled with water and equipped with a heating element that had to be manually lit. As fuel dripped from the heater to another part of the system, you used a match to light it, much like lighting a gas furnace pilot light, however, a bit more dangerous, as I personally found out.** 🐾

POC: SFC Edwin D. Robinson, HQ 1/134th FA, OANG, 2825 Dublin-Granville Road, Columbus, Ohio 43235-2789, DSN 346-7097 (614-336-7097), edwin.robinson@oh.ngh.army.m



Only A Few Seconds

It only takes an average of three seconds to fasten your seatbelt. Three seconds are a very small part of the 86,400 seconds in a day. If buckling up can make a difference between being carried to a hospital or walking away from an accident, then I'll take a few seconds to hear and feel that reassuring "click."

About two years ago, I witnessed a single vehicle accident in which the driver lost control and rolled his vehicle. Both passengers, who were not wearing seatbelts, were ejected from the vehicle during the course of the accident. I arrived at the first victim at almost the same time as a police officer. The officer was so shocked and revolted by what he saw that he had to turn and walk away from the casualty. Think about that. If you are hurt so badly that you shake up a cop, you have achieved a whole new level of hurt. Cops tend to be tough folks.

Those of you who have had medical training should know the first two things you do with any casualty is to establish an airway and stop the bleeding. I could not establish an airway, because at some point during the accident sequence, the victim had suffered major trauma to his lower throat and chest.

I could not stop the bleeding because he was bleeding from

everywhere. I knew he was dying, and so did he. The only first-aid I could really give was to hold his hand and talk to him as he died. When the ambulance arrived, it was more of body recovery than a medical evacuation.

Tough love, people! Do what you have to do to get your soldiers to wear their seatbelts. It will save their lives. Many people think that wearing a seatbelt is not "cool." If that is true, then every racecar driver on the planet is "uncool."

If you establish and enforce seatbelt use as the standard among your soldiers, then you will complement and re-enforce everything that the Army, federal, and state regulations are trying to accomplish, and it won't matter if it is "cool" or not. It is really not that hard: If you are in a vehicle, then you should be wearing a seatbelt. No exceptions.

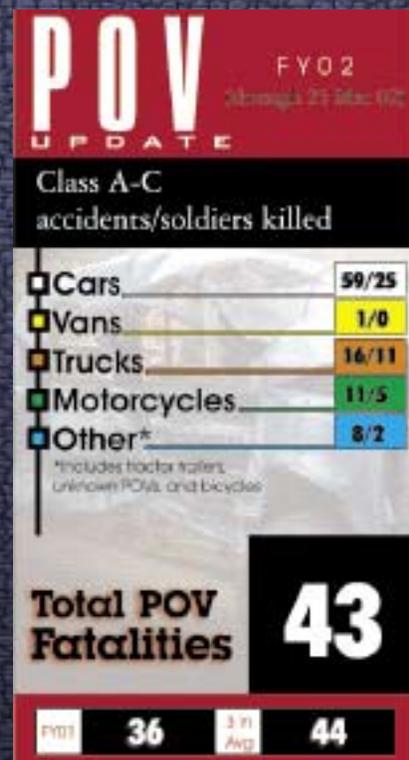
I would also like to take a moment and talk about sport utility vehicles and pick-up trucks. There are no seatbelts in the cargo areas of these vehicles, so if you have passengers back there and you have an accident, they become human projectiles. I have to be honest here; I have ridden in the back of pick-up trucks before and I have had friends ride in the back of my pick-up. Now I know better.

Think you are a tough guy and can hold yourself in

the vehicle in the event of a crash? Let me throw some simple physics at you. If the truck is going 30 mph and runs into something, you will be subjected to about 15Gs. That is 15 times the force of gravity. This means that if you weigh 180 pounds, your effective weight during the accident will be 2,700 pounds. Tell you what, head down to the gym tonight and see if you can curl 2,700 pounds. Think you can do it? Cargo areas are for cargo, not people.

Privately owned vehicles (POVs) are the number one killer of our soldiers. You are our first line of defense; let's make it stop. 

POC: MSG Sean M. O'Brian, Risk Management Integration Division, DSN 558-2845 (334-255-2845), sean.obrian@safetycenter.army.mil



"Drive to Arrive" Videos Are Here! Military moviegoers can now see the new "Drive to Arrive" POV country music video clips at their local Army and Air Force Exchange Systems (AAFES) theater. You can preview the videos on our web site at <http://army.safety.mil/>.

Stick To The Plan

A soldier was shot and seriously injured while conducting night live-fire training. This training was not uncommon—it was training that every soldier performs annually. The following is a summary of the events and causal factors that led to this unfortunate, but preventable accident.

The exercise was planned a year out. A range reconnaissance was done approximately six months prior and then the concept was completed. The range OIC submitted his plan and risk assessment with a risk management worksheet to the commander. After minor modifications, the company commander approved the concept and considered it right on target to the unit's required training tasks. The company commander looked forward to watching his teams execute live-fire scenarios...what combat arms leader wouldn't?

Since the training included night maneuver live-fire, a high-risk training event, the commander submitted the training plan to the battalion commander for approval. After reviewing the risk management worksheet, both commanders discussed the associated risks and controls that the unit was to implement to mitigate those risks. For example, the company commander was to be present on the range; Kevlars and flak vests were to be worn; pneumatic machine guns would provide an enemy signature for the teams to orient on; and the range OIC was to conduct a talk-through, dry-fire walk-through, and blank-fire run-through prior to every live-fire scenario.

Considering the experience of the soldiers involved in the training, these controls seemed adequate to both commanders. The battalion commander, who was the appropriate authority,

made an informed decision and approved the plan.

That's when the plan started to unravel

First, the battalion commander was pulled away from visiting the training by a change of command ceremony. He then directed the company commander to attend another military event. This left the training and the supervision of the range up to the A-Team commander.

This should have presented no problem since the training was properly planned and the associated risks were being dealt with through rehearsals and on-site safeties. The A-Team commander only had to follow the plan.

The company conducted an airborne insertion into the training area, followed by a 10-mile forced march to the range. When all teams had closed on the range, the range OIC gathered the team commanders together for a recon of the range complex. The team members grabbed a few winks and conducted mission preparations.

Following the leader recon, the OIC provided each team time to walk through the range to share information from the recon. These recons began prior to dusk and continued into the night until all teams had an opportunity to take their turn downrange. *(Editor's note: The A-Team involved in the accident conducted their recon during darkness.)*

The following morning, training began as scheduled. The teams conducted talk-throughs, walk-throughs, blank-fire run-throughs, and finally live-fire run-throughs. Two safeties and the range OIC escorted all teams. The day's events went as planned.

Prior to the night portion of the training, the range OIC gathered the detachment

MISSION: CONDUCT MOVEMENT TO CONTACT, RAID AND HASTY DEFENSE

Hazards

- Modified the accepted plan.
- No risk management implementation.
- Improper rehearsals.

Controls

- Conduct proper rehearsals.
- Conduct risk management IAW FM 100-14.
- Leaders supervise actions.

commanders together and they decided to forego the night walk-throughs and blank-fire run-throughs. The rationale was they had gone downrange already and did not need to spend any more time on what they already knew.

They also decided to alter the scenario a little bit for the night fire to make it more manageable. Unlike during the day, the snipers moved with the A-Team and provided illumination with star clusters, instead of being stationary in a support-by-fire position. The snipers also did not have any live ammo for their rifles, and the pneumatic machine gun position which provided a signature and aiming point was not used. Neither the battalion commander nor the company commander was informed of these changes.

What went wrong?

Night live-fire began at 2000, and the accident team began their mission preparations by drawing ammo and moving into the bleachers for the OIC's safety brief. Once this was completed, the range safety officer discussed weapons safety. The team conducted one more internal safety brief and moved into position to begin the night live-fire event.

At approximately 2200, the team crossed the road in a file and moved with members approximately 2-3 meters apart. Soon, the team was completely across the road and the point man was abreast the target area (located at his two o'clock). The range OIC raised two-

silhouette targets. The team reacted by yelling "contact front" and turned to the right front, got down in either the prone position or the kneeling position, and engaged the target.

Once the targets were down, the team commander ordered "cease-fire" and "continue movement." The team got up and turned to move out when the number two man told the point man to get up and move out. When the point man did not respond, the number two man noticed that something was wrong. The point man had been shot.

Lessons learned

Now as we look back on how this accident occurred, we have to consider the risks associated with night maneuver live-fire training. These risks were addressed on the risk management worksheet and controls were implemented to ensure the range's safe operation.

The worksheet identified one hazard as "being shot by a fellow assaulter." The controls that were to be implemented to reduce this hazard included conducting talk/walk/blank-fire/run throughs prior to live fire. By assuming the range recon and admin walk-throughs were adequate for tactical walk-throughs and dry-fire run-throughs, the leaders did not meet the risk acceptance authority's intent for the conduct of the range.

Summary

Proper risk management was conducted. Hazards were identified and controls were approved and implemented. Unfortunately, they were then inappropriately removed. This accident is an example of how modifying a sound plan without approval by the appropriate authority can lead to unacceptable risks—risks that lead to disaster. 🐼

POC: Ground Systems and Accident Investigation Division, DSN 558-3562 (334-255-3562)



RESULT - 1 SERIOUSLY INJURED

MOBILE TRAINING TEAMS COME TO YOU... AND THE PRICE IS RIGHT!

Do your soldiers need training on risk management and other important safety-related force protection issues? If your answer is "Yes," then we have the courses for you!

The NCO and Junior Officer Professional Development Mobile Training Team (MTT) is a group of officers and senior NCOs that travel around the world to Army locations to teach soldiers on the following topics: the Army Safety Program, Unit Safety Programs, Accident Investigation and Reporting, Risk Management, Weapons and Range Safety, Tactical Safety, Army Motor Vehicle Safety, Occupational Safety and Health, and Privately Owned Vehicle Safety. This is great training for those

leaders that are down on the ground doing the Army's business day in and day out.

The first course is a 5-day session consisting of 45 hours of instruction. The target audience is NCOs. Homework and multiple practical exercises will be given, and you will be expected to complete a Standard Army Safety and Occupational Health Inspection (SASOHI) survey, as well as complete a 50-question exam.

Upon completion of the course, the soldier will not only receive a U.S. Army Safety Center Certificate and three hours of college credit, he/she will also obtain a greater knowledge of the Army Safety Program. The course is accredited by the American Council on Education and accredited through Texas A & M University.

The second course that we offer is geared toward young officers and warrant officer technicians. This 25-hour course is focused on hazards identification, risk management, the Army Safety Program, and leader responsibilities. This course will also go through a SASOHI survey and will typically run for 3 days from Tuesday to Thursday.

The best part about these two courses is that it is free training to all command levels, to include Active Army and Reserve Component personnel. The Safety Center will provide these services at no monetary cost to corps, division, or brigade-sized units and installations. The only cost to the unit is a commitment of time and selected personnel for 3 days or a single week, based on the course selected.

The goal is to have at least 40 personnel attend the training. The Safety Center will do everything possible to accommodate the unit's training schedule and any other issues that the unit may have. For more information, visit our website at <http://safety.army.mil> and select the On-Site Training icon or give me a call and we can go over your questions in more detail.

POC: CW4 Anthony Kurtz, MTT Team Chief,
DSN 558-2908 (334-255-2908),
anthony.kurtz@safetycenter.army.mil



NCOPD

- NCOs taking skills back to unit
- Hands-on training in workplace
 - 5 day (45 hours)
 - 3 hours of college credit

3,132
Trained
as of 21 Mar 02

JOPD

- Risk Management at Captain & Lieutenant level
 - Risk Management application and responsibilities
 - 3 day on-site

443
Trained
as of 21 Mar 02



Personnel Injury

Class A

■ A SPC was struck and pinned by a large piece of derelict machinery as he was attempting to dismember it with a cutting torch and clear it from the premises. Soldier was MEDEVAC'd for treatment and surgery, but his injuries proved to be fatal. (Pending investigation).

■ A SSG was participating in Special Weapons Technical Group (SWTG) Phase IV Robin Sage when he was fatally injured.

■ Local law enforcement opened fire on two soldiers conducting/enacting a special operations training scenario. One soldier died and the other sustained serious injuries.

Class B

■ While working on an addition to his house, a CW3 cut off his small finger with a circular saw.

■ A SSG was operating a paper shredder with his spouse and child present. The soldier's 6-year old son attempted to feed paper into the shredder to help his Dad, when his right hand was caught by the feeder mechanism. The child had to have four fingers amputated.

■ A SSG suffered a severe injury to his right hand when he attempted to reposition an M1101 ¾-ton trailer onto a vehicle. When the tongue leg support of the trailer reportedly failed, the tongue pinned/crushed his middle and ring fingers, resulting in permanent partial disability (PPD).

■ While operating a table saw, the SSG severed the tip of his right index finger.

■ A SPC sustained injury to his left hand when the M21 cartridge

he was attempting to load into a Hoffman Device detonated. The soldier suffered a broken middle finger and loss of the tip of his index finger. Cartridge was the third in a series he had been loading.



POV

Class A

■ A SSG sustained fatal injuries when his motorcycle struck a tree.

■ A CPT and his mother were killed when another vehicle crossed the centerline and hit them head on. His father survived the crash.

■ A 23-year old SPC was killed when he ran a red light and struck another vehicle. His vehicle subsequently struck the median and rolled, coming to stop on its roof. The soldier was partially ejected from the vehicle and crushed during the rollover. He had been driving his POV from his second job to an unknown location at approximately 0500. Speed, fatigue, running a red light, failing to wear a seatbelt, and possible alcohol impairment were cause factors for this accident.

■ A SPC was killed when the car he was driving crossed the centerline and struck a tractor trailer. The passenger in the same vehicle was treated and released.

■ A SSG was involved in a 14-vehicle traffic mishap while traveling between unit locations for official duty. A grass fire in the median reduced his visibility, causing him to lose control of his vehicle and wreck. He was trapped in his vehicle when it caught fire.



AMV

Class A

■ An M925 Tractor/M105A2 Trailer was struck by an oncoming

civilian vehicle when it was negotiating a U-turn. The AMV was part of a convoy movement that was reportedly executing U-turns to correct direction of travel. The civilian operator sustained fatal injuries when the left front portion of his windshield frame was caught by the AMV, thereby separating the roof from the car. AMV operator/soldier has reportedly been charged with having executed an illegal U-turn at this time.

■ U.S. Army recruiter (SSG) was using his POV to transport an enlistee (DEP) and an applicant to the Pittsburgh MEPS for deployment for basic training and in-processing, respectively, when they were involved in a multi-vehicle collision. Both the DEP and applicant sustained fatal injuries as a result. The recruiter was treated and released for bruises.

■ Four soldiers were traveling in a TMP van, when the driver swerved right to avoid a disabled vehicle in his lane. As a result, he struck and fatally injured the civilian driver of the disabled vehicle, who was standing outside in the roadway near his vehicle.

■ A SGT was killed when he lost control of his 5-ton truck, ran off the road, and collided with a tree. Soldier was in AD/SW status.



Other

■ A total of 14 soldiers sustained injuries when two 105MM rounds fired from a towed Howitzer and struck the mess tent in which the soldiers were located. Two soldiers died from sustained injuries, two were listed in critical condition at press time, and as many as six soldiers sustained injuries that could result in permanent partial disabilities. (USASC Investigation continues.)

Small Unit Guide

It's here—the latest version of DA Pam 385-1, *Small Unit Safety Officer/NCO Guide*. It provides guidance for commanders and additional duty safety officers and NCOs to apply policies, procedures and information to develop and execute a unit safety program. The publication, dated 29 November 2001, is being distributed Armywide. The electronic version can be found at the Safety Center web page: <http://safety.army.mil>; click GUIDANCE, then SAFETY, and scroll down to find the link to DA Pam 385-1. 🖨️

POC: Dennis Keplinger, Chief of Strategic Programs, DSN 558-3367 (334-255-3367), dennis.keplinger@safetycenter.army.mil

AAFES Recalls Dehumidifiers

The Army and Air Force Exchange Service is voluntarily recalling about 1.4 million dehumidifiers that can overheat, posing a fire hazard. The dehumidifiers were sold under the Whirlpool, Kenmore, and ComfortAire brand names. They are white plastic, about two feet high, and have a front-mounted water bucket. Serial numbers begin with QG, QH, QJ, QK or QL. The serial number is on a label on the wall behind the water bucket, or on the white tag on the box of the dehumidifiers. AAFES, along with department and appliance stores nationwide, sold the dehumidifiers from February 1997 through December 2001. Customers living in the continental United States should contact Whirlpool at (866) 640-7139 to arrange for a free repair. Overseas customers should contact Whirlpool at <http://repair1.whirlpool.com/summary.htm> or contact a local Whirlpool service representative. Local exchanges can assist in locating the Whirlpool service representative. 🖨️

Printer Recall

For Immediate Release, March 7, 2002; Release #02-115

In cooperation with the U.S. Consumer Product Safety Commission, (CPSC), Longwell Electronics, of Brea, CA, is voluntarily recalling about 2.5 million power cord sets sold with inkjet printers from Hewlett-Packard (HP) Company. The connector can break, exposing electrical contacts and posing a shock hazard to consumers.

No injuries or incidents have been reported. This recall is being conducted to prevent the possibility of injury. The gray, two-wire power cord sets with a LS-7C connector were sold with the following HP printers: HP Deskjet 800 series and 900 series, HP Photosmart 1000 series, 1100 series, 1200 series, and 1300 series inkjet printers. The name "Longwell" is molded on the plug between the blades.

Department, computer, office and electronic stores including Best Buy, CompUSA, Costco, Office Depot, Office Max, Staples and Wal-Mart stores sold the printers with the Longwell cord sets nationwide between April 2001 and February 2002 for between \$100 and \$400.

Consumers should stop using these printers immediately and contact Hewlett-Packard for a free replacement cord. For more information, consumers can contact HP at (877) 917-4378 anytime or visit the firm's web site at www.hp.com

To see a picture of the recalled product(s) and/or to establish a link from your web site to this press release on CPSC's web site, link to the following address: <http://www.cpsc.gov/cpscprerel/prhtml02/02115.html/>. 🖨️

POCs: CPSC Media: Scott Wolfson (301) 504-0580, Ext. 1189; HP Media: Jennifer Boggs (858) 655-4289; or HP Recall Hotline: (877) 917-4378

BICYCLE & HELMET SAFETY

With fitness on everybody's mind these days, more people are turning to bicycling as a way to get into or stay in shape. It is a popular fitness activity for health-conscious adults and provides an alternative means of commuting for the environmentally conscious.

With millions of cyclists on the roads—the same roads occupied by millions of motor vehicles that are larger, heavier and faster than bikes—defensive driving applies to both cyclists and drivers.

Each year, 900 bicyclists are killed and 600,000 suffer disabling injuries. Obviously, taking precautions in traffic and wearing protective equipment are a cyclist's best defense against unintentional injuries. For this reason, a helmet is essential, and a certified helmet can greatly reduce your chance of head injury.

Tips for safe biking

■ **Wear a helmet.** Head injuries cause about 75 percent of all bicycling fatalities. The first body part to fly forward in a collision is usually the head, and with nothing but skin and bone to protect the brain from injury, the results can be tragic.

Look for helmets with Snell Memorial Foundation or American National Standards Institute approval stickers.

■ **Obey traffic rules.** Cyclists must follow the same rules as motorist.

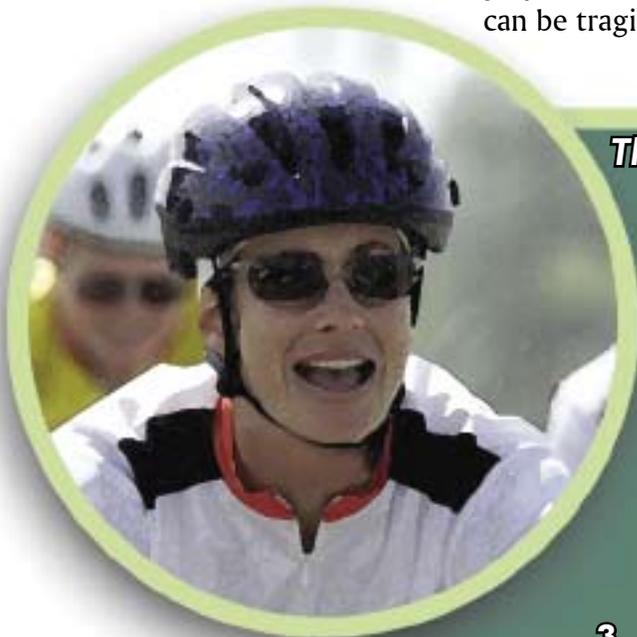
■ **Know your bike's capabilities.**

■ **Go with the flow. Ride in single file with traffic, not against it.** Bicycling two abreast can be dangerous. Bicyclists should stay as far right on the pavement as possible, watching for opening car doors, sewer gratings, soft shoulders, broken glass and other debris. Remember to keep a safe distance from the vehicle ahead.

■ **Stay alert. Always look in all directions before riding into traffic.**

■ **Always be seen.** During the day, cyclists should wear bright clothing. If riding at night is necessary, retro-reflective clothing designed to reflect motorists' headlight beams will make cyclists more visible.

■ **Make sure your bicycle has the right safety equipment:** a red rear reflector; a white front reflector; a red or colorless spoke reflector on the rear wheel; an amber or colorless reflector on the front wheel; pedal reflectors; a horn or bell; and a rearview mirror. A bright headlight is recommended for night riding. 🚗



The Snell Foundation urges that you—

1. Make sure your helmet fits your head.

- Try the helmet on before you buy it.
- Adjust the chin strap firmly but comfortably.
- Try another helmet size or design if simple hand pressure shifts or tilts a helmet significantly or forces it off your head.

2. Wear your helmet correctly.

- Wear it every time you ride a bicycle.
- Wear it low on your forehead just above your eyebrows.
- Always fasten the chin strap firmly.

3. Read and follow all directions carefully.

- Use only manufacturer-approved decorations and cleaners.
- Replace your helmet if it has been damaged.
- Replace your helmet at least every 5 years.

Helmets Prevent Injuries



and
SAVE LIVES!



U.S. ARMY SAFETY CENTER