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## Water Safety... A Risk Management Approach

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Plus: Battling Summer's Heat with Fluid Replacement Guidelines

# ARMY GROUND RISK-MANAGEMENT PUBLICATION COUNTERMEASURE

**The Official Safety Magazine for  
Army Ground Risk-Management**

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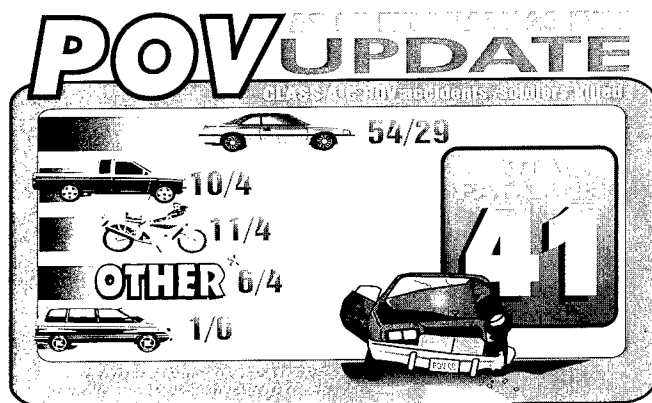
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## Features

## Accident Briefs

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U.S. ARMY SAFETY CENTER

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**Gene M. LaCoste**  
Brigadier General, U.S. Army  
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# Water Safety

## A Risk Management Approach

**W**hen winter starts shedding its frost coat, many soldiers begin planning warm-weather, water-related weekends and vacations. Last summer, four soldiers died in off-duty water-related accidents. Most of these accidents could have been prevented had soldiers included risk management with their maps, guidebooks, and ice chests. The 5-step risk-management process works the same way off-duty as it does at work.

- 1. Identify the hazards.** The hazards are the potential sources of danger: unfamiliar water, unknown water depth and current, fatigue, debris, and changing weather conditions. These hazards can be affected by swimming ability, boating skills, and the condition of the boat.
- 2. Assess the hazards.** Each hazard is analyzed to determine both the probability of its causing a problem and the severity of the consequences should such a problem occur. For example: How fast is the current and what type of underwater debris is present? Is the boat appropriate and seaworthy enough to travel a long distance in this kind of water? Should an accident occur, can the passengers swim and get to safety quickly? Do all passengers have flotation devices, and what can happen to those who don't? Answers to such questions provide a description of the impact of the combined hazards. The result is a statement that quantifies the risk associated with the operation: extremely high, high, medium, or low.
- 3. Make a risk decision.** Weigh the risk against the benefits. Is the trip worth taking if the boat sinks and you haven't enough flotation devices?
- 4. Implement controls.** Controls function to reduce or eliminate hazards. Have flotation devices for everyone on board, and make sure they wear them. Other simple controls could come in the form of a short safety briefing and guidance on emergency procedures.
- 5. Supervise.** Supervision goes beyond ensuring that people do what is expected of them. It includes following up during and after activities to see if all went according to plan and to bring up areas that are red flags in your brain. This also helps anticipate and prepare for unforeseen issues. Lessons learned can be used when planning the next trip. ♦

# Tips For Safe Boating

**B**efore summer's prime time — those hot and hazy days between Memorial Day and Labor Day — commanders and other leaders should brief soldiers on safe boating. Soldiers should be cautioned about renting or buying a boat with the idea that anyone who can drive a car can operate a boat.

Soldiers who are planning to spend a lot of time on the water should take a boating safety course. Your local Power Squadron, Coast Guard Auxiliary, Red Cross, or MWR office offers these courses, and many are free of charge. There are also some short courses that are available on the World Wide Web.

Leaders should brief soldiers on the following controls:

- Know the limit of passengers and weight load for your boat. Don't exceed it.

- A safe boat is a well-equipped boat. Keep all the required and necessary safety gear on board, keep it in good condition, and know how to use it.

- Know how to swim. It just makes good sense. If you don't know how, LEARN. Know the dangers of hypothermia; even good swimmers don't always survive the shock or panic of sudden immersion in cold water.

- Wear life jackets and never make someone feel uncomfortable if they

choose to wear one. Remember, it is the law for all children to wear them.

- Learn "the rules of the road" and obey them! Don't drink while boating, for the obvious reasons.

Remember, practice risk management when boating. Read the above tips again. They are, in fact, the risk management process being implemented.

Each tip has identified unwritten common hazard(s) that could impact boating fun. The hazards are assessed and the controls are developed and implemented to reduce the associated risk. Making the risk management process an integral part of your planning before and during your boating adventures will pay off in safer fun. ♦

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## Risk Management Pointer

**T**he boat must contain one life jacket for each person on board, plus a throwable ring or cushion. You should also carry a fire extinguisher, flares, a foghorn or whistle, a strong flashlight, a first-aid kit, and a bailing bucket. ♦



Written by accident investigators to provide major lessons learned from recent centralized accident investigations.

# Investigators' Forum

## Trogedy in the River

**A** unit was conducting a squad-sized tactical mission at an off-post location as part of a battalion-level evaluation exercise. The mission plan called for surveillance and reconnaissance (S&R) of a fixed facility along a riverbank and would include both ground and water movement. The battalion planned on controlling the exercise with observer controllers (OCs) and using opposing forces (OPFORs) to test the unit's actions on contact.

The squad leader's plan called for the unit to conduct a water infiltration to the mission support site and then conduct a dismounted movement to their final destination. After gathering the required data, the team would move back to their mission support site and conduct a water

exfiltration. The squad was issued life preservers for use throughout the mission.

The team began the mission at approximately 2330 on Day 1 and successfully conducted their water infiltration, via inflatable assault boat, to their mission support site. The team used ground movement to their S&R locations and began reconnaissance operations into the morning of Day 2. The team was split into two 2-person reconnaissance teams and a 2-person team at the mission support site. Following a day of operations, the squad leader decided to consolidate the teams in order to implement a sleep plan and provide security.

At approximately 2300, OPFOR

soldiers detected the team. A firefight between the squad and the OPFOR ensued. As part of the scenario for the event, the OCs assessed one member of the squad as a casualty. The squad now had to evacuate this member from the site. After evaluating the tactical situation, the squad leader decided to evacuate by having the team float downstream in the dark until they met up with the other members of the squad. The team

### Mission: Conduct Water Exfiltration from a Special Reconnaissance Mission Site

#### Hazards

- ☐ Floating dock & boat
- ☐ Swift current / tidal effects on river depth
- ☐ Underwater debris

#### Results

- ☒ 2 Fatalities

Entry Point

Departure Point

Swim Route

Boat

Boat

#### Controls

- ☒ Conduct recon of water obstacles
- ☒ Personal flotation devices
- ☒ Swim team / safety boat on site
- ☒ Resuscitation devices / pre-accident plan

constructed an improvised flotation device from their rucksacks, snap links, and nylon tubing to evacuate the casualty. They then placed the simulated casualty on it and inflated their life preservers.

As the squad moved into the river, one of the OCs waded into the river approximately 3-5 feet behind the team. The OC was not wearing a life preserver.

At approximately 30-35 feet from shore, the squad, followed by the OC, got into the current of the river and started to move downstream. The team attempted to swim around some barges and boats that were docked, but was unsuccessful. They struck the floating dock. The squad members attempted to hang on to the front edge, but due to the force of the water and the slope of the floating dock, they were immediately pulled under the surface of the water and under the dock.

Three members of the squad were pulled under the floating dock and surfaced downstream. They were able to pull themselves from the water and onto another dock. The simulated casualty and the OC were pulled under the dock and never resurfaced. The simulated casualty's body was recovered approximately 12 hours later. His body was entangled in the nylon tubing connecting the rucksacks forming the flotation device. The flotation device had snagged on a sunken log. The OC's body was recovered the following day. Both had drowned.

### Lessons Learned

■ The squad conducted a water exfiltration that had not been properly rehearsed prior to the mission. The squad leader did not conduct a risk assessment of his change in plans although he had previously identified the river as a possible escape route. Further, no one in the battalion staff identified the hazards associated with conducting a water exfiltration during the hours of limited visibility, in unfamiliar surroundings, and with a hastily-constructed improvised flotation device.

As a result, possible control measures for these hazards were not in place. The battalion staff should have incorporated risk management into the planning process and updated their assessments as situational changes occurred. Effective risk management procedures take into account all aspects of an operation to include branches and sequels, thereby setting the unit's soldiers up for success. We must view risk management as a complementary tool for the staff to use during the mission analysis phase of

the decision-making process as outlined in FM 101-5.

■ The OC did not wear a life preserver even though the local regulations clearly required the use of one. Compounding this problem was the fact that no member of the OC team stopped this individual from entering the water without a life vest. Finally, none of the members of the squad questioned the OC's decision even though the use of life vests had been briefed in the mission order. Some members of the unit were not aware of the regulatory requirements. Leaders have a responsibility to ensure they incorporate regulatory guidelines into their operational planning process.

■ The OCs were placed in a position not only to "observe" the squad, but also to "control" the scenario the squad was performing. With this control comes the responsibility to ensure the squad conducts its mission safely. There were several occasions during the accident sequence where the OCs could have intervened to prohibit the squad from entering the river. Further, the OCs had a responsibility to ensure that the proper support equipment was on-site (i.e., rescue boats, lights, emergency equipment). Commanders must ensure that personnel selected to act as OCs understand their responsibilities and are capable of exercising control over the evaluated unit to ensure the safe completion of the exercise.

### Summary

This accident was tragic, not only because of the loss of two outstanding soldiers, but because it was preventable. Leader involvement at several points of the accident sequence could have prevented the accident. Leaders at all levels must ensure their soldiers follow regulatory guidelines and unit SOPs. Further, leaders must apply the principles of the risk management process throughout the planning cycle. Finally, we must ensure that effective control measures are in place to safeguard soldiers and equipment.

These soldiers were training to do a difficult and dangerous mission. They lost their lives during that training. It is our responsibility as leaders to ensure that another such tragedy does not happen. *Leaders learn from mistakes. Leaders plan for the future. Leaders know and enforce standards. Leaders take care of their soldiers. Be a leader...ensure your soldiers accomplish their mission SAFELY.* ♦

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

# Battling Summer's Heat

**S**ummer heat can kill! Heat stress can strike while a soldier is pulling maintenance in the motor pool, while a civilian desperately fans herself in an office with no air-conditioning, or while a family member mows the yard. The symptoms of heat cramps, exhaustion, and ultimately heat stroke can set in with little warning.

Battling heat takes awareness. Knowing the warning signs of heat-related illnesses could prove to be lifesaving.

■ **Sunburn.** Many people do not think of sunburn as a heat injury, but it is a frequent cause of injury to soldiers, and repeated exposures can lead to skin cancers later. Anyone can become sunburned, even on cloudy days. Fortunately, it is totally preventable, either through use of sunscreen, or simply by keeping body parts covered.

⊕ **First-Aid:** Cover the body part that is being burned. If there is pain with the burn, seek medical attention.

■ **Heat cramps** are painful cramps of the muscles caused by a heavy loss of salt through sweating. An

individual may lose more than a quart of water per hour through sweating alone. Vomiting, diarrhea, or urination can make this, and all dehydration injuries, much worse. Generally, the cramps will disappear with treatment.

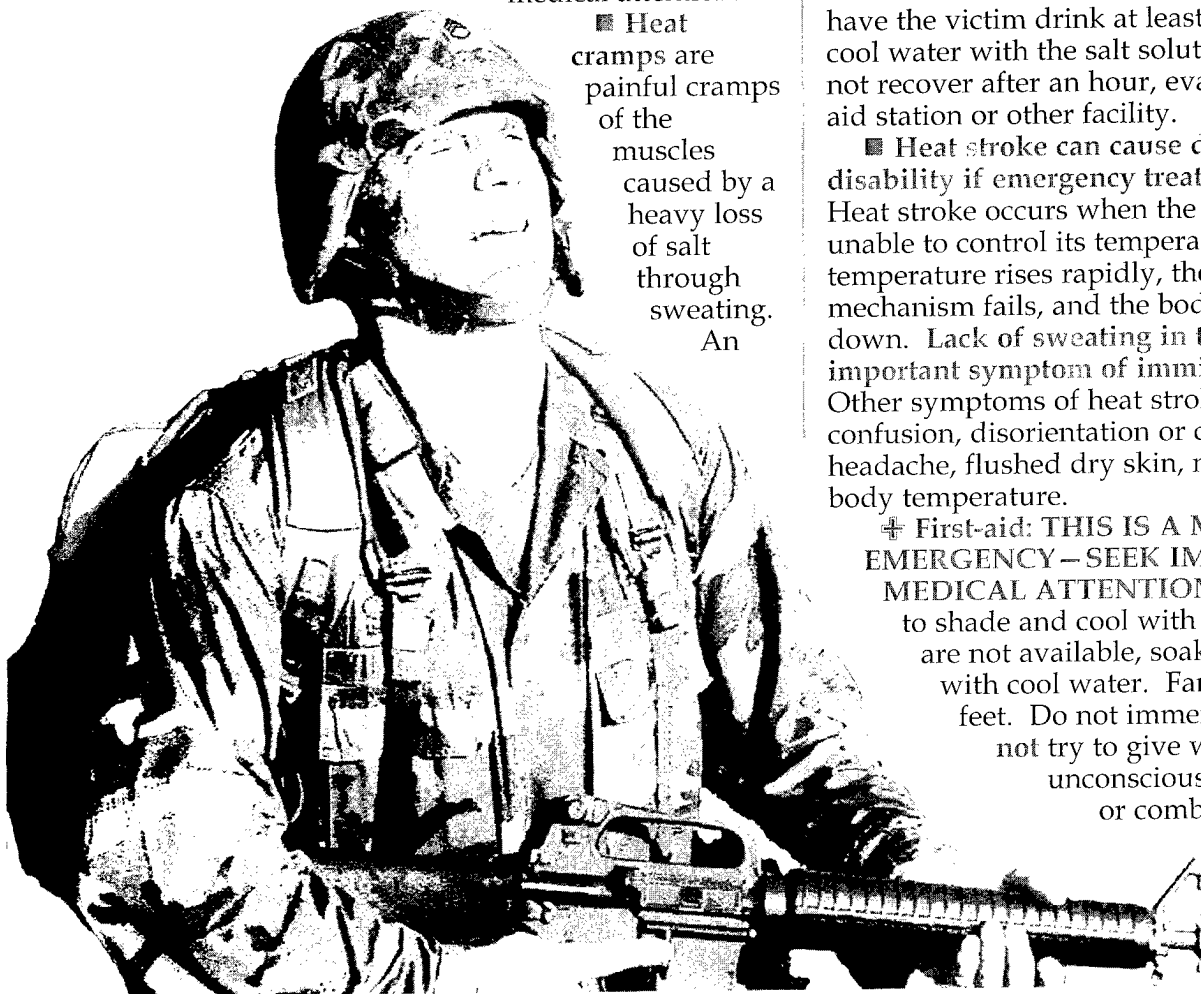
⊕ **First-aid:** Move the victim to shade and loosen clothing. Treatment includes frequent intake of water, a cup (8 oz) every 15-20 minutes, not to exceed 1½ quarts per hour. Thirst is not an adequate indicator of dehydration. If cramps persist, dissolve ¼-teaspoon table salt in one quart of water, and have the victim slowly drink at least one quart of the salt solution.

■ **Heat exhaustion** is caused by excessive salt depletion and dehydration and characterized by symptoms of profuse sweating, headache, tingling sensation in the extremities, weakness, loss of appetite, dizziness, nausea, cramps, chills, and rapid breathing.

⊕ **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 other facility.

■ **Heat stroke** can cause death or permanent disability if emergency treatment is not given. Heat stroke occurs when the body becomes unable to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. Lack of sweating in the heat is an important symptom of imminent heat stroke. Other symptoms of heat stroke are mental confusion, disorientation or coma, throbbing headache, flushed dry skin, nausea, and elevated body temperature.

⊕ **First-aid:** **THIS IS A MEDICAL EMERGENCY—SEEK IMMEDIATE MEDICAL ATTENTION.** Move the victim to shade and cool with ice packs. If packs are not available, soak or douse victim with cool water. Fan body and elevate feet. Do not immerse in ice water. 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.

### Common Sense Approach to Battle the Heat

- **Acclimatization.** It takes up to two weeks to become acclimatized. When deployed, leaders must take this process into account when planning missions.
- **Fluid intake.** Soldiers should drink adequate fluids before and during the operation or training exercise (see chart below).
- **Physical conditioning.** Infections, fever, recent illness, overweight, fatigue, drugs (cold medication), and previous heat injuries may increase the risk of heat stress.
- **Work schedules.** If the tactical situation allows, heavy work and activities that require strenuous physical exertion (marches/calisthenics) should be scheduled for early morning or late evening. Avoid working in the direct sun, whenever possible.
- **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 jackets, or other measures. Removal of BDU jackets should be done with caution, as this may increase the risk of sunburn.

- **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 soldier monitoring accordingly.

Remember to be alert to early signs of dehydration and heat illness. They forewarn of more severe casualties to come without intervention. Virtually all heat injuries are preventable; successful prevention of heat casualties is more important to the unit than their treatment. ♦

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### Fluid Replacement Guidelines for Warm-Weather Training (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<br>(Green)  | 82-84.9       | No limit   | ½ qt           | 50/10 min     | ¾ qt           | 30/30 min  | 1 qt           |
| 3<br>(Yellow) | 85-87.9       | No limit   | ¾ qt           | 40/20 min     | ¾ qt           | 30/30 min  | 1 qt           |
| 4<br>(Red)    | 88-89.9       | No limit   | ¾ qt           | 30/30 min     | ¾ qt           | 20/40 min  | 1 qt           |
| 5<br>(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 ± 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"> <li>● Walking hard surface at 2.5 mph, &lt; 30-pound load</li> <li>● Weapon maintenance</li> <li>● Manual of arms</li> <li>● Marksmanship training</li> <li>● Drill and ceremony</li> </ul> | <ul style="list-style-type: none"> <li>● Walking hard surface at 3.5 mph, &lt; 40-pound load</li> <li>● Walking loose sand at 2.5 mph, no load</li> <li>● Calisthenics</li> <li>● Patrolling</li> <li>● Individual movement techniques; i.e., low crawl, high crawl</li> <li>● Defensive position construction</li> <li>● Field assaults</li> </ul> | <ul style="list-style-type: none"> <li>● Walking hard surface at 3.5 mph, ≥ 40-pound load</li> <li>● Walking loose sand at 2.5 mph with load</li> </ul> |

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.

# "In All Things, Moderation. . ."

## Too Much Water Can Be Deadly

**A**s soldiers, we are repeatedly cautioned against the dangers and the serious problems that can develop from dehydration. The main defense against dehydration is, of course, water; but too much water can be just as deadly. The common term for this problem is water intoxication, technically known as hyponatremia.

Long known to be a problem in tri-athletes and marathon runners, the Army's first known death that attributed to hyponatremia occurred in 1997. Still, two years later, the problem remains neither widely recognized nor understood by most troops and trainees.

✱ It was a hot July afternoon and a soldier was in his fourth week of basic training. Unit training was moved to the rifle range where the heat category rose to level 5 (WBGT > 90°). The soldier complained of headache, nausea, dizziness, and feeling overheated. Weather and symptoms suggested heat stress, so he was moved to the shade, his clothing was loosened, and he was given water. Over the next 1½ hours, he drank approximately four quarts of water and vomited repeatedly. The soldier required assistance in walking and was again placed in the shade and instructed to drink more water. Over the next two hours, he drank an estimated 10-14 canteens of water and continued vomiting. By mid-afternoon, he was physically incapacitated and transported to the hospital. Despite intensive medical care, the soldier never regained consciousness and died of hyponatremia.

### How does this happen?

Hyponatremia is defined as not having enough sodium in the blood. Although there are some medical conditions that can cause this, the main cause is simply drinking too much water while not taking in enough sodium. Basically,

sweat consists of water and salt. This salt is essentially the same as table salt—simple sodium chloride—this is why your eyes sting when sweat gets in them. Most soldiers have at one time or another, either from a road march or a deployment to someplace like JRTC or NTC, had a chance to become drenched in sweat, and later seen the white deposit on uniforms or load-bearing equipment (LBE). This white deposit is salt. Sweat contains between 2 and 3 grams of salt per liter; therefore, under the right conditions, the body can lose one liter (about a quart) of sweat an hour. As you can see, if the soldier is just replacing water and not salt, the conditions are perfect for developing hyponatremia.

### What are the symptoms of hyponatremia?

Unfortunately, they are similar to dehydration: nausea, muscle cramps, disorientation, and a lack of coordination. Ultimately, what can happen is there can be swelling of the brain, which can lead to seizures or death. Telling the difference between dehydration and hyponatremia can be difficult, even for trained medics. Key items to tell the two apart are that the soldier with hyponatremia is more likely to be vomiting and usually is known to have been drinking large amounts of water.

### What do you do with a suspected case?

Get medical help. If the soldier is conscious, dissolve ¼-teaspoon salt in a quart of water and have the soldier slowly drink the solution. Remember, the body can only absorb about 1½ quarts of water per hour by mouth. If a medic or combat lifesaver starts intravenous (IV) fluids and the soldier vomits more than once and isn't

improving in an hour, evacuate the soldier immediately to the nearest aid station, troop medical clinic, or hospital.

### **How can hyponatremia be prevented?**

The average person, with an average job and with no problems like high-blood pressure, should take in about 2.4 grams of sodium a day. Daily sodium intake is usually from food or salt put on the food.

If you are in garrison, working indoors at a desk, obviously this is more than enough. However, as mentioned earlier, that 2.4 grams can be gone in an hour during a road march or even performing heavy maintenance outdoors, if the weather is right. If you know that you are going to be in a position where losing salt is a problem, you need to increase your salt intake. This can be done by using the salt packet in MREs, adding ¼-teaspoon salt (this is about 1½ grams) per quart of water, or simply eating salty snack foods, such as pretzels.

Sports drinks are also useful, but must be used carefully. On average, to get one gram of salt, you would have to drink about a half gallon. Another important

tip to remember is NOT to use salt tablets! First, they are absorbed more slowly by the body, and secondly, it is easy to take too many.

### **What else can be done?**

Water discipline. Some people think water discipline means restricting water, whereas this used to be true, it isn't today. Water discipline is the most successful, proven means of preventing all heat-related injuries, either in training or actual operations. In practice, what it means is the monitoring of all members of a unit—commanders and senior NCOs are not immune—to detect symptoms early and to ensure that the right amount of water is being consumed. The Office of the Surgeon General has recently issued revised fluid intake and work/rest guidelines for soldiers and should serve as the basis of a water discipline SOP. See the chart on page 7.

Remember, we are NOT saying you should not drink water; the bottom line is that you should consume water at regular, planned intervals. ♦

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## **Fort Drum Safety Office Submits Best Answer**

**T**hank you for responding to the January issue of "You Make the Call." As you recall in the January issue, a light infantry unit was conducting an exfiltration exercise on foot. The exercise was to be conducted at night and it involved crossing a stream 30 meters wide and 15 feet deep to reach a tactical assembly area. You had to decide what was the safest way to conduct this exercise. All answers were excellent; however Mr. Ernest Caltenback submitted the best response. Congratulations, Mr. Caltenback! You will receive a Safety Center coin and a letter of congratulations from the Director of Army Safety for the following answer.

The platoon leader must recognize the hazards of conducting water operations at night. Limited visibility, water crossing, water exposure, water depth, running water (speed), and personnel training are but a few of the dangers involved in crossing rivers or streams at night.

The use of night vision devices, waterproof rucksacks, water survival training, ropes, and

safety personnel downstream to include a Zodiac boat (if a big waterway) are some control measures needed to safely perform this training exercise. A review of water survival manuals to include TC 21-305-2, TC 21-21, and FM 21-305 is at hand. Lastly, conduct a leader's exercise safety brief and supervise, supervise, supervise.

**POC: Mr. Ernest Caltenback, Command Safety Office, Fort Drum, NY.**

# Motorcycle Safety

## Leading to a Good Ride

**S**ummertime. It's almost here. When the sun comes out, so do the motorcycles. Motorcycles provide an economical means of transportation to and from work, and provide off-duty transportation and recreation as well.

When controlled by careless or inexperienced drivers, motorcycles can be lethal. In fact, the Army experienced 79 recordable motorcycle accidents involving soldiers in FY99. Of these 79 accidents, 21 Army personnel lost their lives.

These accidents and deaths should provide the impetus for leaders to stop and ask themselves three important questions:

### **Am I providing enough training for my soldiers?**

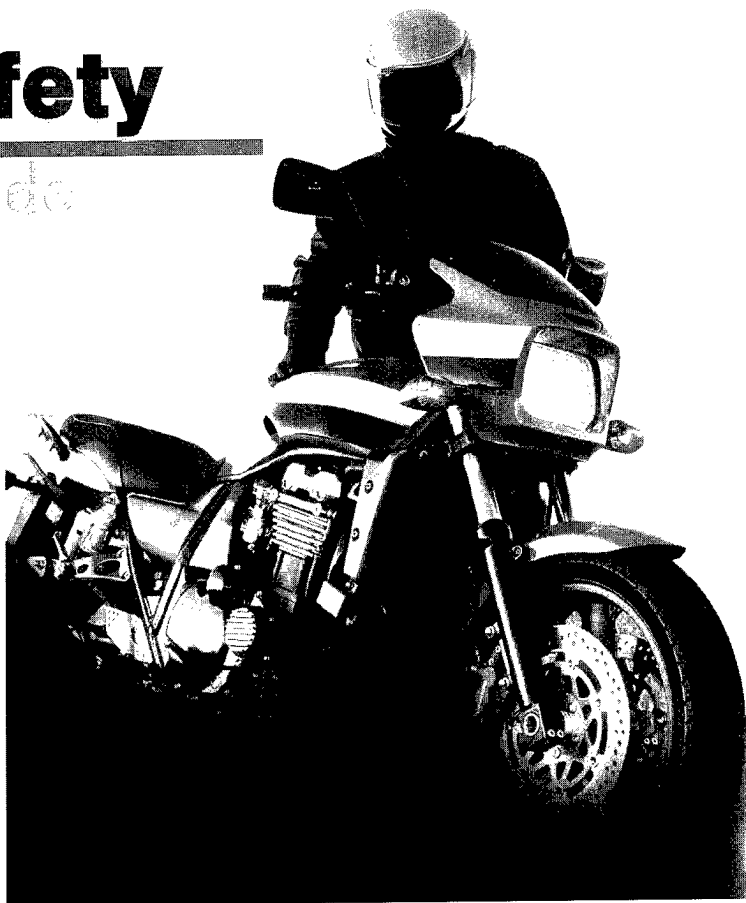
To answer this question, it is first necessary to reiterate the regulatory requirements for motorcycle riders. Paragraph 3-2a(2) of AR 385-55, *Prevention of Motor Vehicle Accidents*, states the following: "Each driver of a military or privately owned motorcycle or moped who is authorized to operate on an Army installation will be required to complete an Army-approved motorcycle safety course. The course will consist of classroom instruction, hands-on training, and successful completion of a written evaluation." Many installations experience problems regarding training simply because they are unsure what constitutes "Army-approved."

According to the U.S. Army Safety Center (USASC), the best motorcycle safety training program available today has been developed by the Motorcycle Safety Foundation (MSF), which is a nationally recognized organization and is Army-approved.

In fact, 31 state licensing agencies use one of four different MSF skill tests, 41 states use the MSF motorcycle operator's manual, and 29 states incorporate the supporting knowledge test. For more information on the Motorcycle Safety Foundation, check out their web site: <http://msf-usa.org/pages/MAIN1.html> or for the nearest rider course location, call (800) 446-9227.

### **Am I relaying POV accident data to my soldiers?**

As all of us within the safety community know, the primary purpose of accident investigation and reporting is to develop countermeasures to



prevent similar accidents from occurring. Besides ensuring that soldiers understand and adhere to regulatory guidance regarding motorcycle safety requirements, leaders must also make every effort to share both Armywide and local POV accident experience with their soldiers. This can be done through safety council meetings, stand down days, safety alerts, unit formations, long holiday weekend briefings, and articles published in the installation newspaper. Armywide POV accident data can be obtained from the USASC web site at <http://safety.army.mil>. Local accident data is available to leaders from their installation safety office.

### **Am I enforcing AR 385-55 and local SOPs?**

Providing education to soldiers regarding proper equipment and safe riding techniques is extremely important; however, enforcement of the regulatory requirements may be the most critical element in reducing motorcycle accidents. Many installations ensure these requirements are met by integrating them into the local motor vehicle operator regulations that are enforced by the installation provost marshal. Enforcement of these requirements by installation military police and chain of command sends a clear message to soldiers that leadership will not tolerate

violations and is concerned about the well-being of their soldiers.

In addition to the training requirements we have discussed, Appendix B of AR 385-55 specifies additional requirements for motorcyclists. These consist of the following:

- Operators must be currently licensed to operate a motorcycle.
- Motorcycles and mopeds must have headlights turned on at all times except where prohibited.
- Soldiers must wear properly fastened DOT-approved helmets when operating a motorcycle

or riding as a passenger.

- Soldiers will wear eye protection (clear goggles/face shield).
- Soldiers will wear appropriate clothing including long-sleeved shirt or jacket, long trousers, full-fingered gloves, leather boots or over-the-ankle shoes, and high-visibility garments (bright colored for day and retro reflective for night). ♦

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## Accident Briefs

### Flip Breaks Neck

A soldier was on the beach talking to fellow soldiers when a female soldier walked by. In an attempt to impress her, the soldier ran towards the water at full speed and when he got to about ankle-deep water, he attempted a somersault. Unfortunately, he did not get enough lift to complete the flip and landed on his neck, resulting in a broken vertebrae and paralysis. The soldier died on the way to the hospital.

### Diving Into Trouble

The temperature was hot (over 100°F) and a soldier was swimming with friends in a river. The group had just arrived and decided to dive from an overhang. One youth dove from the ledge and came up to tell the others that there was a pipe submerged. As he was beginning to tell this to the others, another soldier was already in mid-air. The soldier dove with both arms above his head and landed directly over the pipe. The soldier was paralyzed from the neck down.

### Ocean Takes Life

Two soldiers unfamiliar with the ocean were enjoying the surf late in the afternoon. The tide was changing and the undertow carried the soldiers down the beach and out over their heads. One of the soldiers, a poor swimmer, panicked and cried for help. His friend tried to save him and nearly drowned himself because the panicking soldier could not follow orders. One soldier drowned because he panicked—his friend could not save him. Neither was wearing a life jacket!

### Sometimes Size Does Matter!

The Coast Guard HH-65 was returning from a MEDEVAC mission when it was diverted for a search and rescue mission—a boat had radioed that they were out of gas. After a search of about 30 minutes in the approximate area, the boat was located. The boat was basically a shallow hull bass-fishing boat with a small motor. The question was: What was it doing 20 miles offshore?

All boats are not made for all waters. Fortunately, the seas and winds that day were calm. With more than 3-5 foot seas, the boat would have foundered, especially without a working (or powerful enough) motor to maintain heading and steerageway.

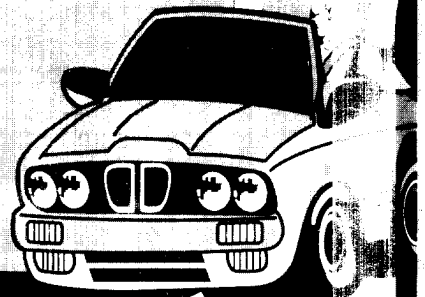
After the helicopter orbited for 30 minutes, a Coast Guard cutter arrived on station to give fuel and escort the boat to shore. Because these “sailors” had the wrong boat in the wrong water, and didn’t bother to do any trip planning or take emergency supplies or fuel, they tied up a Coast Guard helicopter for over an hour, and a Coast Guard cutter even longer.

Before anyone flies anywhere, a flight plan is made. Do the same for your boat trip—give it to someone reliable who can report if you don’t return or check in on time. Nobody knew where these guys were. By dumb luck, they had a CB radio and were able to relay a distress call. These guys were lucky; don’t repeat their mistakes. Make sure your boat is appropriate for where you want to take it, do your preventive maintenance checks and services (PMCS) on all equipment, and plan your trip! ♦

# The accident-free way

Wherever the road  
takes you...

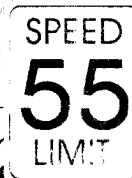
Buckle up!



Don't  
drink  
and drive.



Drive posted  
speed limits;  
slower in  
bad weather.



Drive no more than  
6 hours. Stop for  
the night when tired.