

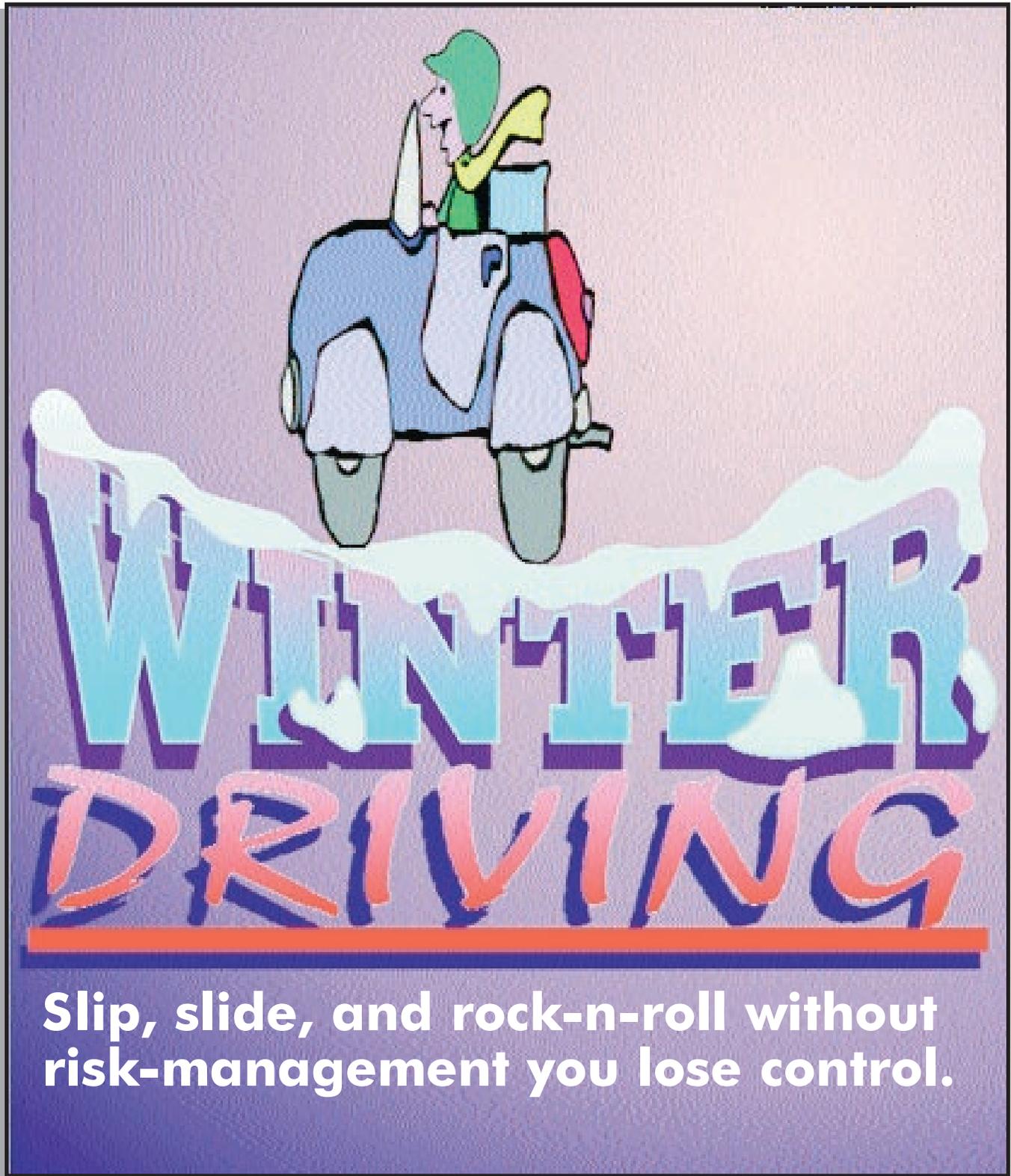
ARMY GROUND RISK-MANAGEMENT PUBLICATION

COUNTERMEASURE

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Slip, slide, and rock-n-roll without risk-management you lose control.

Are you ready for the winter?

Whether driving your private vehicle(POV) or a military vehicle, there are controls that you can implement to reduce the risk inherent in winter driving. They will also enable you to avoid mission delays and failures and costly POV breakdowns. PMCS on your car is just as important as it is for your military vehicle, especially in the winter months. There are a number of simple inspections and minor repairs which you can do to your car just as we do for our military vehicles, such as checking the fluid level and tire pressures. Other inspections and repairs may require a certified mechanic. You should check the following systems, as a minimum:

- Exhaust system: check for leaks in pipe connections, holes in mufflers and tailpipes. An undetected carbon monoxide leak in a closed car can be deadly.
- Electrical system: check the battery, alternator, lights, etc.
- Brake system: check the front and rear brake shoes, emergency brake cable and fluid level.
- Fluids: check the anti-freeze, water in battery, and windshield washer solvent.
- Hoses and belts: check for cracks.
- Windshield wipers: make sure they are in good condition.
- Tires: use all weather tires and inspect tread wear. Check the tire pressure

Problems can still occur even though you were prepared. Your winter driving kit should include:

- Cellular phone
- Jumper cables
- Flashlight
- Safety vest
- Flares
- Warning triangles
- Shovel
- Extra windshield washer solvent
- Blankets
- Sand or kitty litter
- Gloves

Adverse conditions

Curves: *SLOW DOWN*, before the curve, steer steady and slow when on ice or snow. Don't make abrupt changes in direction.

Intersections: Keep your speed slow, and slow down well in advance of intersections in case they're slick.

Bridges/overpasses/underpasses: Adjust speed for bridges and overpasses, which freeze before other road surfaces because of the air flow both over and under the structure.

Learn how to recognize the hazard. A good rule is to slow down when approaching bridges and places where the road is in the shade, especially late in the afternoon and after dark when temperatures are lower.

TIPS ON DRIVING

- Time is the key: Plan for increased travel times.
- Increase intervals. Allow eight to ten seconds between each vehicle even at slow speeds when driving in snow or icy conditions.
- Turn your headlights on and keep them clean. Don't forget to turn them off when you leave your vehicle.
- Monitor the space in front of the vehicle.
- Use your seat belt at all times.
- If the road is slick, anticipate problems.
- Remember, that there are fewer daylight hours, so adjust your trip when possible.
- Keep air circulating inside the vehicle.
- Anticipate lane changes and turns, and make them gradually.
- Use turn signals well in advance of turns and lane changes, so other drivers know your intention.
- Make sure your vehicle has enough fuel to reach your destination or plan stops to refuel well before the gas gauge reaches empty.
- Always keep your windshield clean.

- Never sleep in your vehicle while the engine running.

Trouble Ahead

Braking procedures are different for vehicles equipped with anti-lock brake systems (ABS). Check your vehicle's owners manual or -10 to see which type of brakes are on your vehicle.

ABS: Do not pump the pedal. Keep constant pressure on the brake pedal. You may experience a slight vibration, this is normal. Continue to hold the pedal down. Letting up on the pedal will deactivate the ABS and prevent it from working properly.

Other: Keep your heel on the floor between the brake pedal and the accelerator. Use your toes to press the brake pedal until the vehicle's tires "lock" up, then ease off the brake pedal until you reach the "threshold" or the point where the tires aren't "locked" up.

Black Ice

When ice forms on an asphalt surface, it is effectively camouflaged. The conditions are right for black ice if you have to scrape frost or ice off your car windshield.

If you find yourself in a patch of black ice—

- **Don't panic.** Keep your cool and take your foot off the gas pedal.

- **Don't slam on the brakes.** This will only make the situation worse.

- **Do not make quick turning maneuvers.** Steer gently in the direction you want the vehicle to go.

Skidding

When your vehicle is involved in a skid:

- Ease your foot off the accelerator or brake pedal.

- Avoid slamming on the brake.

- Down shift if you have a manual transmission.

- Look and steer in the direction you want the vehicle to go.

- Do not over steer. Make necessary steering adjustments smoothly and gradually.

- If you over-correct at first, be prepared for a skid in the opposite direction. Again, remember to look and steer where you want the car to go.

- Continue to steer until your vehicle recovers from the skid

- Once the vehicle is under control again, adjust your speed to the road conditions.

When you are planning your holiday trips this winter, be sure to use all the sources of information available to assist you. The Internet has an endless supply of information to assist in your planning. I found a great, free, trip planner at URL: <http://www.aaa.com>. It includes information on the current weather and construction hot spots. This is not the only web site that is out there, any one of them can help you plan a safe trip.

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The Home Heating Unit

Cooler nights are kicking in, and your furnace will soon be kicking on. For all the comfort it offers, heating equipment is the second leading cause of home fires in the U.S. Each year, home heating equipment results in more than 70,000 fires and 600 fatalities (including carbon monoxide poisonings) across America. With foresight and planning, you can keep your home fires cheery and safe.

Central Heating Units

- Have your furnace, chimney, and chimney connections inspected and serviced at least once a year by a qualified professional.
- Install smoke detectors on every level of your home, including the basement. Place smoke and carbon monoxide detectors outside of every sleeping area, and in rooms with unvented gas heaters.
- Replace (or clean) your furnace filters monthly.
- If your furnace sits in a small room, do not use it for storage.
- Don't hang anything on the gas pipes. The weight puts stress on the joints and could allow gas to escape.
- If you smell a faint gas odor near a heating appliance, investigate, the pilot light may need re-lighting. Be sure to ventilate prior to re-lighting the pilot light.
- If the odor is strong or you hear a hissing noise, immediately leave the house. Leave the door open behind you for ventilation. Don't use anything that can create a spark—even the telephone. Go to a neighbor's house to make the emergency call.

Fireplaces

- Have the chimney inspected by a certified sweep at the start of each heating season. If you regularly use the fireplace more than four times a week, or use soft or green woods, have it inspected more often.
- Block out animals and sparks with a chimney screen.
- Do not use flammable liquids to light or stoke a fire.
- To reduce creosote formation, use well-seasoned hardwoods.
- Never burn paper or pine boughs. The particles can float out onto the roof.
- Keep flammable items, such as papers,

blankets or pillows at least three feet from the fireplace.

- Ashes should be removed only in a metal container.
- Read the instructions before lighting an artificial log. Used incorrectly, these logs can burn unevenly and release abnormal levels of carbon monoxide.
- Don't overload your fireplace. A roaring fireplace can overheat your walls or roof and lead to a roaring inferno.
- Never leave a fire unattended. Be sure the fire is out before you go to bed or leave the house.
- To avoid flying sparks, use a sturdy screen made of metal or heat-tempered glass.
- Clip the branches of overhanging trees back at least 10 feet from the chimney top.
- Keep a fire extinguisher handy, and know how to use it.

Space Heaters

- Buy a heater with automatic shut-off safety features that has been approved by a nationally recognized testing lab.
- Never leave an operating heater unattended, or run it while sleeping.
- Keep heaters at least three feet from anything that can burn, including wallpaper, curtains, bedding, pets, and people.
- Place a smoke detector in each room where you use a space heater.
- Never hang wet clothes over the heater to dry.
- Kerosene heaters are dangerous, and are illegal in many areas. Follow manufacturer's directions exactly if you must use one.

Electric Heaters

- Keep the cord stretched out, not curled. Do not bury the cord under carpets or rugs.
- If the cord overheats while the unit is in use, have the heater inspected and serviced immediately.
- Avoid using an extension cord. If you must use an extension cord temporarily, be sure it is marked with a power rating at least equal to the heater.
- Periodically check for fraying or splitting wires. Take broken heaters to a qualified service center, or replace it. Do not attempt to repair it yourself.

—Adapted from *Safety Times* publication

Ingredients for a successful mission



The right mix every time

Cold-Weather Injuries

Frostbite

Cause	Symptoms	First Aid
Freezing of tissue, normally due to exposure below 32°F.	<p>Numbness in affected area. Tingling, blistered, swollen, or tender areas.</p> <p>Pale, yellowish, waxy-looking skin (grayish in dark-skinned soldiers).</p> <p>Frozen tissue that feels wooden to the touch.</p>	<p>Warm affected area with direct body heat.</p> <p>Consult medical personnel as soon as possible.</p> <p>Do not thaw frozen areas if treatment will be delayed.</p> <p>Do not massage or rub affected areas.</p> <p>Do not wet the area or rub it with snow or ice.</p> <p>Do not expose affected area to open fire, stove, or any other intense heat source.</p>

Chilblain

Cause	Symptoms	First Aid
Repeated exposure of bare skin for prolonged periods to temperatures from 20° to 60°F (for those not acclimated to cold weather).	<p>Swollen, red skin (or darkening of the skin in dark-skinned soldiers).</p> <p>Tender, hot skin, usually accompanied by itching.</p>	<p>Warm affected area with direct body heat.</p> <p>Do not massage or rub.</p> <p>Do not wet the area or rub it with snow or ice.</p> <p>Do not expose affected area to open fire, stove, or any other intense heat source.</p>

Immersion foot (trench foot)

Cause	Symptoms	First Aid
Prolonged exposure of feet to wet conditions at temperatures between 32° and 50°F. Inactivity and damp socks and boots (or tightly laced boots that impair circulation) speed onset and severity.	<p>Cold, numb feet may progress to hot with shooting pains.</p> <p>Swelling, redness, and bleeding.</p>	<p>Rewarm feet by exposing them to warm air.</p> <p>Evacuate victim to a medical facility.</p> <p>Do not massage, rub, moisten, or expose affected area to extreme heat.</p>

Dehydration

Cause	Symptoms	First Aid
Depletion of body fluids.	<p>Dizziness</p> <p>Weakness</p> <p>Blurred vision</p>	<p>Replace lost water. Water should be sipped, not gulped.</p> <p>Get medical treatment.</p>

Hypothermia

Cause	Symptoms	First Aid
Prolonged cold exposure and body-heat loss. May occur at temperatures well above freezing, especially when a person is immersed in water.	<p>Lack of shivering.</p> <p>Drowsiness, mental slowness, lack of coordination. Can progress to unconsciousness, irregular heartbeat, and death.</p>	<p>Strip off wet clothing and wrap victim in blankets or a sleeping bag.</p> <p>Get victim to a heated location and medical treatment as soon as possible.</p>

The identity of a hazard

A keen sense of the obvious is necessary to properly identify a hazard. Or is it? Often repetitive chores done around the home don't throw up the red flag of a hazard. Some hazards are buried so deep in our routines that we don't even realize that there is a significant risk involved. To illustrate my point, let's discuss yard work. I know that if we started to identify the hazards associated with making our yards look good, we'd come up with a list of obvious hazards. We all would top that list with things like: Rocks and debris kicked up by the lawn mower, line trimmer and edger. Of course to manage that hazard we would say, wear proper clothing and eye protection. But how many times do we hear about an eye injury or loss?

Another obvious hazard is coming in contact with the cutting instrument. Almost all these instruments have safety shields or devices built in to prevent injury. Why then do people remove them or figure out a way to get around them? Are they asking to get injured? Probably not, but still there are accidents every year where people have not identified even these obvious hazards, or failed to implement the necessary controls.

What about the not so obvious or hidden hazards? Recently, a man was using a line trimmer to finish up his yard. All the proper safety guards were attached to the apparatus. His daughter was playing on a swing set nearby. When he noticed that his daughter fell off the swing he

put down the trimmer and went to check on her. He found his daughter fatally wounded by a piece of the string that went through her temple and into her brain. A piece of the line. Now I don't know about you, but, I have used these contraptions for a number of years and the string has never even crossed my mind. The line! We all know that it breaks off, but who ever thought about where it went? The poor man in this accident probably never thought about it either. Make sure that when operating yard tools that everyone, including your animals, are a safe distance away. One thing is for certain though, if you have children and you use one of these trimmers, you will

probably never forget that you need to know where the string goes. ♦



Holidays—happiness and celebration

Unfortunately, for some families, they will be a time of remorse

It's no secret that the Thanksgiving and Christmas holiday periods can be joyous or deadly. This is as true for soldiers as it is for the rest of the population. The Army, and the other services, are simply a small reflection of our society. Accidents just seem to happen indiscriminately. But can we prevent them?

Here are some numbers to think about:

Number of Army POV Fatalities

	Thanksgiving	Christmas
FY92	5	9
FY93	1	6
FY94	1	6
FY95	0	8
FY96	1	3
FY97	0	3
FY98	?	?

Whose name will get added to the rolls? Will it be yours? Will you leave a legacy of remorse and regret for your family to remember every year during the holidays? Or will one of your soldiers not return to the unit after the holidays? I wonder if we as leaders had to visit the family every year after a preventable accident if we wouldn't take more time to ensure that our soldiers are well protected.

Each of these numbers represents a soldier who never returned to the unit following the holiday period. It's likely that some received a safety briefing, and others did not.

The numbers do not include family members, reserve component soldiers not on active duty, or DA civilians. If we could see those numbers, we would likely find that even more members of our extended Army family died on the highways during the holiday periods.

You say you always tell the soldiers to be careful before dismissing them for the holiday? Is that enough? How do these accidents happen anyway?

Top Causes of Holiday Army POV Fatalities, 1992-1997

- Failure to use seat belts
- Fatigue, alcohol, failure to stay alert
- Excessive speed/Too fast for conditions
- Abrupt control/steering
- Failure to yield

If these represent the root causes of fatalities, then our question is answered. These fatalities could have been prevented. I know you say, "but I can't control what they do when they leave the unit." If that were true, how effective is your unit going to be in combat? Are our soldiers not charged with the responsibility of conducting battle in our absence? If we can't influence their decision to buckle up, how can we believe that we as leaders can influence their behavior when the bullets are flying.

There are tools available to assist leaders and soldiers to evaluate driving profiles and estimate the risk levels each soldier will face on the highway.

One of these tools, the Privately Owned Vehicle Automated Risk Assessment and Controls Program (POV-ARAC), is available for download from the Army Safety Program web site at <http://safety.army.mil>.

The program is DOS-based, will run on any IBM compatible computer 286 or above, and can be used by individuals or units. The program suggests control options that leaders or soldiers can select to help lower the risk of traveling our nation's highways during the holiday seasons.

I haven't forgotten about all of you who might be driving POVs overseas...I had a POV in Korea for 3 years and I know that soldiers face some "theater unique" challenges due to cultural differences.

While our POV ARAC does not address those "unique" circumstances, your local safety office likely has information about command unique driving risks and controls.

There is no magic about these tools. They are simply things that leaders can use to help their soldiers increase awareness of the dangers they face on the highways.

The Safety Center does not operate a risk-management psychic hotline. The bottom line is that leaders must care enough about their soldiers to spend a little time preparing them for the holiday

driving season.

So for a holiday present this year, let's give our soldiers the gift of life.

One final thought: Our soldiers are currently deployed in many countries around the world. Many of them are without their families, in strange places, some away from home for the first time. If there's anything you can do during these holidays to make their lives a little brighter...even for a moment...why not do it? Send a

letter, a small gift, an e-mail...or a thought, meditation, or prayer...for the men and women who stand at freedom's frontier in service to America this holiday season.

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These tools are simply things that leaders can use to help their soldiers increase awareness of highway dangers.

POV FATALITIES



POV Fatalities	FY97	FY96
Thanksgiving Holidays	0	1
Christmas Holidays	3	3

FY97 FOCUS

- Command Emphasis
- POV ARAC Program Fielding
- POV RM Program

- The sharp statistical decline may be attributable to a high visibility media campaign & Commander's direct involvement.
- POV fatalities will most likely continue to be the primary killer of Army Soldiers in FY97.
- Bottom Line: Command involvement to integrate RM will reduce accidents, prevent fatalities, and conserve combat power.

Arsenal's forge earns award

ROCK ISLAND, IL -- A worldwide trade group has given its top safety award to Rock Island Arsenal, IL., for RIA's outstanding safety record in its forging operations.

The Forging Industry Association selected RIA for its 1996 First Place safety award in its size group. RIA is a member of the Forging Industry Association, which is made up of hundreds of major manufacturers involved in forging in the United States and overseas. To earn the safety award, the Arsenal had to compete with forgers of all types from the private and public sectors.

The award was based on a nomination which asked for statistics for 1996 and three previous years in nine safety-related areas, including job-related deaths; OSHA reportable incidents; lost days due to injuries; and days of restricted work activity due to injuries. Statistics had to be compiled for all employees involved in forging operations, including forgers, heat treaters, die sinkers and planners.

During 1996, the Arsenal's forge scored a perfect "zero" in all nine

categories. Zeroes and low numbers had also been achieved in the previous three years.

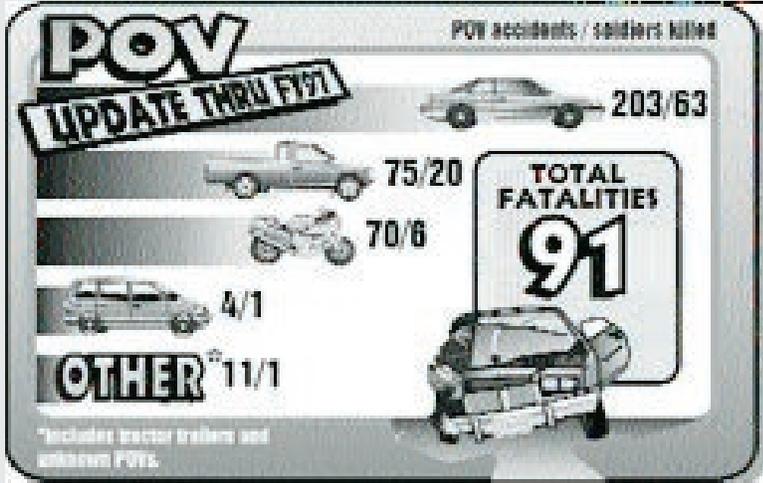
The perfect record in 1996, combined with the near-perfect record compiled in the recent past, earned the award for the Arsenal. The forge's good safety record has continued into 1997.

The dangers of forging are obvious even to a casual observer. In RIA's forge shop, metal parts are heated to temperatures of up to 2,300 degrees Fahrenheit and struck with hammers at forces of up to 207,000 foot-pounds.

Dennis Haut, coach of the Forge and Heat Treat Team in the Arsenal Operations Directorate, attributed the team's outstanding safety record in the face of such danger to awareness and teamwork.

"We have experienced, skilled employees who know how to work with this equipment and operate it safely," Mr. Haut said. "We pay attention at all times, and we don't take anything for granted when it comes to safety."

"We also use the buddy system," he said. "The people in the forge are a team who look out for one another. That's the key to safety, here and anywhere else." ♦



POV
UPDATE THROUGH FY97

POV accidents / soldiers killed

Car	203/63
Truck	75/20
Motorcycle	70/6
Other	4/1
OTHER*	11/1

TOTAL FATALITIES
91

*Includes tractor trailers and unknown PVs.



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