



The Safety Corner

From the Marine Corps Center for Lessons Learned
March 2, 2007



Motorcycle Safety

This issue of the Safety Corner highlights lessons and observations about Motorcycle Safety, training, and Personal Protective equipment (PPE).

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From the Director:

For every issue of the Safety Corner, we work to provide up-to-date and relevant safety information. This issue was sparked by the lessons learned from a 31-day period when five Camp Lejeune Marines were involved in serious motorcycle wrecks; three were killed and a fourth lost a leg. Statistics continue to show that Sailors and Marines aged 18-25 outpace other age groups in motor vehicle fatalities. Unfortunately, as the number of riders grows, so do the mishaps.

During the first month of fiscal year 2006, the outlying commands of Marine Forces Atlantic sustained six motorcycle accidents. Of the six accidents, only one of the Marines had completed the mandatory motorcycle safety course required for all Department of Defense personnel. Marine Corps Forces Pacific had 25 serious motor vehicle mishaps occur since the beginning of fiscal year 2006, 11 involved motorcycles.

The primary contributing factors that cause these wrecks are excessive speed, fatigue, improper use of equipment, and failure to use proper personal protective equipment, according to research conducted by the Marine Corps "Ride Right" program. After surviving tours in Iraq or Afghanistan, we cannot continue to allow off-duty motor-vehicle and motorcycle mishaps to remain the biggest non-combat killers. We need to get serious about keeping our Marines alive, whether fighting in the War on Terrorism or driving home to their families.

Log on the to www.mccll.usmc.mil to download previous editions of the Marine Corps Center for Lessons Learned Safety Corner, as well, as our Monthly Newsletters. I look forward to your comments, observations, and concerns.

Semper Fidelis,

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Days of Summer

As summer grows near and the days get longer, motorcycles are dusted off and ridden more often, hence the need for safety increases. The Marine Corps Motorcycle Safety Programs need to be fully implemented. These standards are designed to protect the lives of Marines, Sailors and civilians who work for the Marine Corps. Riders are highly encouraged to take advantage of available resources. Motorcycle safety courses are available at no cost to all DOD personnel. The required Basic Riders Course is a two-day course that involves classroom and ride time and covers basic control of motorcycle skills. The Experienced Riders Course is a refresher course that lasts about five hours. For enrollment details, contact your safety representative

Use the [Naval Safety Center's website \(http://safetycenter.navy.mil/\)](http://safetycenter.navy.mil/) to glean best practice ideas to enhance your command traffic safety awareness program. Engage the services of the local community in providing speakers for stand-downs such as the state and local police, MADD, medical personnel, etc.

Accepting the risk to ride

There are many reasons for wanting to ride a motorcycle - and there are motorcycles and riding styles for almost everyone. But the prime consideration in deciding to ride is a decision to accept the risk inherent to motorcycling. This risk can be lowered, however, motorcycling is still a high-risk activity. In an accident, there is a high chance of personal injury.

The observations and recommendations contained in The Marine Corps Center for Lessons Learned (MCCLL) Safety Corner represent the considered judgment of Marines who have identified safety issues in their units. The purpose of this newsletter is to apprise other Marines of these safety recommendations and to encourage them to enter their own lessons into the Marine Corps Lessons Management System (LMS).



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General credits training and personal protective equipment (PPE) to saving his life

By Kelly Widener

U.S. Army Combat Readiness Center Public Affairs



FORT RUCKER, Ala. (Oct. 9, 2006) – Funny things go through a person’s mind while sliding down an asphalt road. While sliding about 30 meters at about 35 mph, Brig. Gen. Doyle D. “Don” Broome Jr. said the thought that flashed through his mind as he fell off his motorcycle was, “Boy I wish I had invested in those leather chaps.” The unfortunate result of Broome’s accident isn’t that he wasn’t wearing chaps, but that he became part of an increasing Army statistic by no fault of his own. Statistics show that about 60 percent of Army motorcycle accidents involve Soldiers who are 26 and older and are E-5s and above.

The accident of the deputy commanding general of U.S. Army Cadet Command was one of many recorded motorcycle accidents during fiscal 2006. To provide motorcyclists the best chances of surviving an accident in terms of equipment and training, the services mandate wear of personal protective equipment and attendance of a motorcycle safety rider education and training course in accordance with Department of Defense Instruction Number 6055.4,

Traffic Safety Program. This is a good requirement, considering about 37 percent of riders are more likely to survive an accident if they wear a helmet, according to the National Highway Traffic Safety Administration.

The fortunate result of Broome’s accident is obvious — he survived it. But he survived because he managed and controlled every aspect of personal safety he could. Investigators credit his preparedness to saving his life. He said he is not only thankful to be alive after the accident, but he is positive the training and personal protective equipment he was wearing that day gave him another chance to buy those leather chaps he now wears during each motorcycle ride.

“Fortunately, I was wearing all my PPE,” Broome said in reference to the full-face helmet, leather gloves, long-sleeved shirt, leather jacket, ballistic eye protection, heavy jeans and steel-toed riding boots he was wearing the day a car passed him and then cut him off to make a right turn. “He did one of those snap lane changes people like to do now, when they think they’re NASCAR drivers,” Broome explained. “He snapped right over in front of me, and the only thing I could do was grab the front handbrake. It was either that or run into the back of his car because he made an immediate turn right in front of me.”

As soon as he stopped sliding, the general said he was up and moving out of traffic to ensure he didn’t get hit by following traffic. The asphalt and friction burned through the knuckles of his leather gloves and the left forearm of his long-sleeved shirt and leather jacket. He suffered second- and third-degree burns on the arm as well as a softball-size area on his left knee. Something had also cut through the leather down to the steel cap of the toe on his left boot. “Lessons learned are that: One, no matter what your rank or riding experience level — you can be put into a bad situation and two, your personal protective gear saves your life,” Broome said.

“Even though I got buggered up in this thing, if I hadn’t been wearing my PPE, the outcome would’ve been eminently worse. Your PPE ‘pre-ride checklist’ should include: Full fingered gloves, leather or ballistic jacket, ballistic eyewear, chaps, over the ankle riding boots and a high-quality DOT certified helmet. As a friend of mine says, ‘If you’ve got a ten-dollar head, then you should wear a ten-dollar helmet.’ The only thing I have done differently since then is that I went out and bought those leather chaps, and I wear them even in the summer when I ride.”

Secondly, Broome said he credits his training to saving his life. Though he started riding motorcycles when he was 14 years old, he has taken the Motorcycle Safety Foundation Course twice. “Even though I wound up laying it down, the training is invaluable. Situational awareness is critical, and I am even more aware now of cars driving around me than I was before,” Broome said. “I ride now with the belief that drivers aren’t going to see me or they are going to do something stupid to put me in a position I don’t want to be in. It is a high threat environment, and you have got to have your head on a swivel and be constantly aware.”

The roadways are full of automobile drivers who are not looking for motorcyclists or are not aware of riders around them, he said. There are cell phone users who are distracted, elderly drivers who don’t have the situational awareness they once did, or there are the NASCAR ‘wannabees.’ “I try to ensure I have reaction space and time from all of them,” Broome said.



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Check Your Equipment Before You Ride

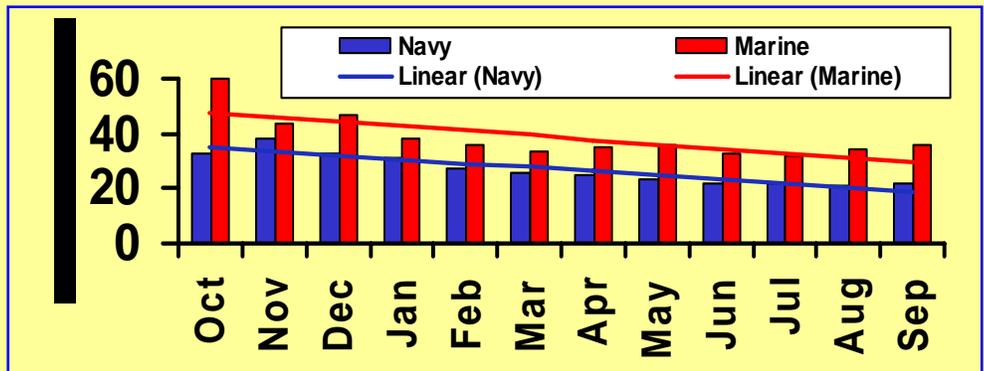
Motorcycle Operator Checklist

- Ensure you have the proper endorsement on your license to operate a motorcycle.
- Ensure your motorcycle has a current registration, state inspection, insurance and base stickers.
- Ensure you have and use all the REQUIRED personal protective equipment:
 - DOT or SNELL approved helmet
 - Long trousers
 - Long-sleeved shirt (minimum requirement)
 - Jacket designed for the motorcycle rider (preferred)
 - Full-finger leather gloves
 - Hard soled shoes with heels that protect the ankle
 - Protective eyewear
- Before each ride, remember the pre-ride check: lights/horn, tires/wheels, fuel/oil, cables, and suspension.
- Remember that tire pressure is a critical part of suspension. Inflate to manufacturers recommendation.

Just the Facts

- Safety records show that more American troops have died on U.S. roads in off-duty motorcycle accidents after they returned from Afghanistan than have been killed fighting there since Sept. 11, 2001.
- Military commanders say these deaths are largely the result of boredom, bonus pay, and adrenalin after troops return from wars in Iraq and Afghanistan.
- Nearly 350 troops have died on motorcycles since the 2001 terrorist attacks. That's compared to 259 killed while serving in Afghanistan.
- Nearly 1,000 more troops have been injured on motorcycles.

Traffic Fatality Rate by Month, FY06



FY02-06 Marine Military Fatalities in Marine PMV Mishaps

	4-Wheel*	2-Wheel*	Pedestr/ Bicyclist	Total
FY02	50	11	4	65
FY03	34	17	2	53
FY04	35	7	4	46
FY05	29	13	3	45
FY06	41	17	7	65
FY02-06	189	65	20	274

We did a great job from March through June 2006 in reducing our monthly PVM mishap fatalities, but July - September has seen an increase similar to what happened to us in the summer of 2005. Our statistics continue to show that Sailors and Marines aged 18-25 outpace other age groups in motor vehicle fatalities. This group historically has the lowest seat belt use rate and is most likely to engage in risky driving behavior that includes speeding, driving while alcohol impaired, and driving while fatigued. During FY06, there has been an increase in the number of motorcycle fatalities, the majority in the 18-25 age group. We are also seeing a growing trend among older riders just becoming involved or returning to motorcycling after several years.



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Do it right: Get licensed. Be legal. Be smart.

The statistics show that unlicensed riders are more likely to be involved in a crash.

The real reason licensed riders are less likely to crash is because of their attitude, not their drivers license status. Riders who take motorcycling seriously, ride legally, [ride sober](#), and try to continuously improve their riding skills are more likely to have long and happy riding careers. It's all about attitude.

You need training, but your best friend probably isn't your best teacher.

Often, it's easier to learn from a professionally trained stranger than from even the best-intentioned friend or relative.

It's not just the motorcycle, it's also the equipment.

Personal Protective Equipment (PPE)

Per MCO 5100.19E, The following PPE is mandatory for all people operating or riding as a passenger on a motorcycle on all DoD installations, and for all military personnel operating or riding on a motorcycle off installations, on and off road, in uniform or in civilian clothes:

Eye Protection - Impact or shatter-resistant goggles (enclosed on the sides) or fullface shield attached to the helmet. A windshield, eyeglasses, or fairing alone is not considered proper eye protection.

Helmet - A properly fastened protective helmet (under the chin), which meets the standards of Snell Memorial Foundation, the American National Standards Institute (ANSI), or the Department of Transportation (DOT).

Full-fingered gloves or mittens.

Long legged trousers.

Long sleeve jacket - It is encouraged that the jacket be a protective motorcycle safety jacket (recommended with shoulder and elbow pads). This is authorized for wear by Marines in uniform.

Footwear - Hard-soled shoes, or boots with heels are required. The shoe must come to a height to cover the ankle. Leather is the preferred material for the boots or over the ankle shoes.

An approved reflective vest, which is a mesh/fabric vest that is bright yellow, international orange or lime- green with reflective strips front and back shall be the outermost garment. Black reflective vests are no longer authorized.

When backpacks are worn it is recommended that a reflective running belt be wrapped around the backpack.

KEY TAKE AWAYS

1. Get trained and licensed.
2. Wear protective gear.
3. Ride unimpaired.
4. Ride within your limits.
5. Be a lifelong learner



Helmets are estimated to be 37% effective in preventing fatal injuries to motorcyclist.

Many activities or sports have their own suitable protective clothing and equipment. Motorcycling is no exception. Every rider and passenger should wear over-the ankle footgear, long pants, a good jacket, gloves, and above all, a Helmet. Let's look at what a helmet really does for you. First, it is the best protective gear you can wear while riding a motorcycle. Think of it at the same time you think of your ignition key. You pick up the key, you pick up the helmet, they go together. Helmet use is not a "cure-all" for motorcycle safety, but in an accident a helmet can help protect your brain, your face, and your life.

Below are a few helmet myths:

MYTH - Helmets cause neck or spinal cord injuries.

Fact - Research has proven this untrue. Five studies reviewed by the General Accounting Office all reported a higher incidence of severe neck injuries for unhelmeted riders. An Illinois study found that helmets decrease the number of significant spinal injuries.

MYTH - Helmets impair hearing and sight.

Fact - "The helmet affects my peripheral vision" and "I can't hear as well" are two common myths neither of which is supported with scientific data. Normal peripheral vision is between 200 and 220. Federal safety standards require that helmets provide 210 vision. Over 90 percent of crashes happen within a range of 160 (with the majority of the remainder occurring in rear-end collisions), so it's clear that helmets do not affect peripheral vision or contribute to crashes. Hearing is not affected either. Helmets reduce the loudness of noises, but do not affect the rider's ability to distinguish between sounds. The University of Southern California conducted 900 on-scene, in-depth investigations of motorcycle crash scenes, and could not uncover a single case in which a rider could not detect a critical traffic sound. Some studies indicate that helmets are useful in reducing wind noise and protecting hearing.

MYTH - Motorcycle helmet laws are unconstitutional.

Fact - The highest courts in more than 25 states have held motorcycle helmet laws to be constitutional. The Massachusetts motorcycle helmet law was affirmed by the U.S. Supreme Court in 1967.