

Aviation <b>8</b>	Ground On-Duty <b>1</b>	Car <b>6</b>	Motorcycle <b>4</b>	Other <b>7</b>
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*Numbers in fatality categories are subject to change based on final disposition of investigation.*



# COMBATTING THE BLUE THREAT

## COMMANDANT'S SAFETY ACTION CAMPAIGN

### **Our Number One Killer!** **From the Director...**

Marines,

Of the 48 Marines/Sailors lost to senseless mishaps last fiscal year, 29 were killed in Private Motor Vehicle (PMV) crashes and of those, 16 died in PMV-4 (four-wheeled vehicle) and 13 in PMV-2 (two-wheeled vehicle) incidents. Without a doubt, the most reliable killer of Marines/Sailors due to mishaps are our own vehicles. Moreover, since practically everyone drives or rides – everyone is at risk. Investigations of PMV-4 incidents regularly reveal that driver distraction, impairment, excessive speed, and fatigue are the most common contributing or causal factors. On the other hand, PMV-2 crashes are primarily attributed to loss of control in corners, riding too fast, and the rider's inability to simultaneously brake and maneuver the bike when suddenly confronted with the need to do so.

In past editions we've discussed how to identify hazards and ways to mitigate associated risks, but many road hazards have already been identified and mitigation strategies developed to make driving and riding less deadly. Think of posted speed limits, sobriety limits for drivers, and distracted driving laws. Assigning a maximum safe speed to drive is intended to limit your crash exposure and resulting injuries. Traffic safety researchers universally agree that mobile device use while driving increases the likelihood of a crash. **Distracted driving is the number one contributing causal factor of PMV-4 crash fatalities in our Corps.** As for drinking and driving, **DON'T** do it; have a plan before you step off the LOD for the evening! Like in combat, identified threats (distraction, fatigue, speeding, alcohol use) should be avoided!

### Inside This Edition

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During recent detonation testing of Liner Demolition Charges (LDC), a number of M1134 Fuzes (DODIC ML182) were found to contain unconsumed explosive material after firing the LDC. Per Safety of Use Message (SOUM) 151345Z MAR 19, any M1134 Fuze deployed with the LDC and rocket motor (DODIC J143) is assumed to present handling, transportation, and storage hazards.

**Never handle or remove found ordnance items from the range!**

### **The Numbers Say It All** *Marines, make a commitment to reduce these numbers to zero!*



### DID YOU KNOW?

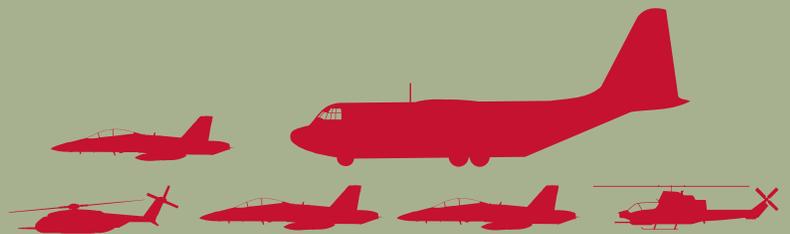
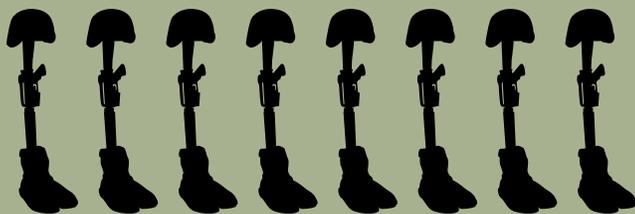
Previous Blue Threat editions can be found at: [www.safety.marines.mil](http://www.safety.marines.mil). You can also contact us with questions or suggested topics by emailing [BlueThreat@usmc.mil](mailto:BlueThreat@usmc.mil).

# FY19 CLASS A MISHAPS

## AVIATION

**4 CLASS A AVIATION MISHAPS** resulted in the **death of eight Marines**.

- 5 December 2018: Class A, Philippine Sea; **F/A-18D and KC-130J** collided while performing fixed wing aerial refueling mission. F/A-18 aircrew ejected with one fatality. Crew of five in the KC-130 were all fatalities.
- 9 December 2018: Class A, MCAS New River, NC; **CH-53E** landing gear inadvertently retracted during ground taxi.
- 28 February 2019: Class A, MCAS Miramar; **Two F/A-18Cs** collided in mid-air while conducting CAS. Both aircraft landed safely with no injuries.
- 31 March 2019: Class A, MCAS Yuma, AZ; **AH-1Z** crashed during a nighttime training mission resulting in two pilot fatalities.



## GROUND ON-DUTY

**2 CLASS A GROUND MISHAPS** resulted in the **death of one Marine** and the permanent, total **disability of one Marine**.

- 6 November 2018: Class A, Coolidge, AZ; E-4 suffered a permanent total disability during a training course.
- 1 January 2019: Class A, Washington, DC; E-3 died after gunshot during guard company duty changeover.



## OFF-DUTY

**6 CLASS A CAR MISHAPS** resulted in the **death of six Marines**.

- 12 October 2018: PMV-4, Snyder, TX; E-1 drifted onto the shoulder of a highway, over-corrected, and collided head-on with a tractor-trailer.
- 22 December 2018: PMV-4, Newaygo, MI; E-3 was involved in an off-duty vehicle accident and declared deceased on the scene.
- 2 January 2019: PMV-4, Beckley, WV; E-7 died when a garbage truck collided with his vehicle.
- 14 January 2019: PMV-4, El Paso, TX; E-1 died in a head-on collision.
- 16 January 2019: PMV-4, Jeffersonville, IN; E-3 died when a dislodged tire from another vehicle struck her windshield, killing her immediately.
- 20 February 2019: PMV-4, Holly Ridge, NC; E-3 died while operating an automobile in a multi-vehicle mishap

# FY19 CLASS A MISHAPS

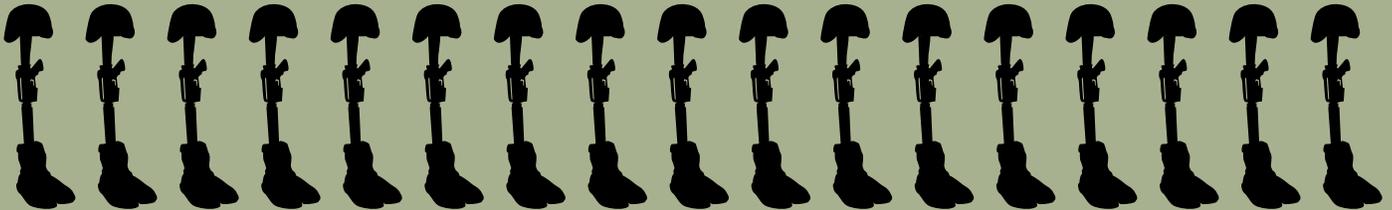
## OFF-DUTY (CONT'D)

### 4 CLASS A MOTORCYCLE MISHAPS resulted in the **death of four Marines.**

- 19 October 2018: PMV-2, Richland, NC; E-3 died in a motorcycle mishap on his way to work.
- 16 November 2018: PMV-2, Temecula, CA; E-5 motorcyclist died when he collided with another vehicle.
- 18 November 2018: PMV-2, Julian, CA; E-4 died on 22 Nov from injuries sustained in a single-vehicle motorcycle mishap.
- 28 December 2018: PMV-2, Garland, TX; E-6 motorcyclist died in a multi-vehicle mishap.

### 7 CLASS A OTHER MISHAPS resulted in the **death of seven Marines, five of which were or may have been alcohol-related incidents.**

- 20 October 2018: Recreational, Havelock, NC; E-3 died when his weapon accidentally discharged while he was cleaning it.
- 18 November 2018: Pedestrian, Philadelphia, PA; E-8 died when he was hit by a vehicle while crossing the street.
- 1 January 2019: Recreational, Wyoming, MI; E-3 could not be revived after passing out on couch.
- 5 March 2019: Recreational, Onamia, MN; E-5 died in a snow mobile mishap involving another vehicle.
- 7 March 2019: Recreational, Independence, CA; A 1st Lt was winter hiking in the High Sierra mountains between 23 Feb and 5 Mar. After missing his 5 Mar extraction date, a search was conducted covering his planned route and all possible "bail out" routes. Despite a well-prepared, coordinated and equipped plan, search and rescue experts speculate that SNO was most likely overcome by winter storms in the early stages of his movement. Category changed from DUSTWUN to deceased on 3 April 2019.
- 10 March 2019: Pedestrian, Huntington Beach, CA; E-3 was struck by a vehicle while crossing the road.
- 31 March 2019: Recreational, Murrieta, CA; E-7 (GySgt) was staying at a friend's house where he was heard to be snoring heavily and choking in his sleep. His friend checked on him and discovered that he was unresponsive. Medics were called to the scene and CPR was attempted for 30 minutes before the SNM was declared deceased.



# FY19 FATALITIES

as of 11 April 2019

Aviation

8

Ground On-Duty

1

Car

6

Motorcycle

4

Other

7

TOTAL

26

Numbers in fatality categories are subject to change based on final disposition of investigation.

## Contributing Factors

### Fatigued Driving

After being on duty and working a long shift, you've just been released for leave. Even though it's late on a Friday night, you change, grab your coffee, and hop in the car. No big deal, right? Getting behind the wheel when you're not well rested could be more dangerous than you think. According to new research, fatigued driving can be just as dangerous as driving while intoxicated. Fatigue results in thousands of motor vehicle fatalities a year, and it's estimated to be a factor in 20 percent of fatal crashes.

How can you combat the risks of driving while sleep deprived? Take a break every two hours or 100 miles, travel with a passenger who can keep you awake and help share the driving responsibilities, and avoid medications that cause drowsiness. If all else fails and you find yourself dozing at the wheel, pull off the road and take a nap.



zzz

### DRIVERS AGE 18-29

drive fatigued more often than other age groups

56%



45%

**MEN** drive fatigued more often than **WOMEN**



### LACK OF SLEEP

leads to a higher risk of crash. In other words, the more you crash out, the less likely you are to CRASH!



### HIGH-SPEED, LONG, OR RURAL HIGHWAYS

are where people are most likely to fall asleep.



**ALMOST 25%** of U.S. adults know someone who fell asleep at the wheel.

### ONE TEXT OR CALL COULD

# WRECK IT ALL



### Texting While Driving

In addition to the Marine Corps, 47 states, including the District of Columbia and Puerto Rico, have a texting ban. Only Arizona, Missouri, and Montana allow texting while driving. In 2018, 4,637 people died in car crashes as a result of cell phone use and 14% of distracted driving deaths were specifically attributed to the use of mobile devices, as opposed to other forms of distracted driving.

**PUT THE PHONE DOWN!**

### TEXTING WHILE DRIVING CAN COST YOU!

The average insurance premium rate increase after receiving a texting while driving ticket was 23%, which is an annual average of \$346. In some states, such as California, where penalties are more severe, the rate increase can be as high as 45%! These added costs can cause hardships, not just for you but for your family as well. Mandated traffic school after a violation can be between \$100 and \$150 each time it's required, adding to the potential financial hardships.

### DID YOU KNOW?

Most cellphones have a feature to mute all incoming texts while driving and drivers can choose an automatic text response that lets others know they are in the car.

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## This Happened To Me...

LDO Captain Vo, Long N.  
Deputy AC/S G6  
Communication Electronics Maintenance Officer  
3D Marine Air Wing G6

### SUMMER 2018

I was on a group motorcycle ride on Palomar Mountain, CA, and as I was riding up the mountain through a turn, two vehicles were traveling down the mountain through the same turn. One of the vehicles was traveling so fast they swerved into my lane. Attempting to escape hitting the car head-on, I remembered my training and changed course to avoid hitting the car. The car still managed to clip my lower right leg and rear wheel. The impact forced my motorcycle off the road and over a 10 foot embankment. I was still seated on the motorcycle when it hit the ground, and the compression of the suspension upon impact caused me and the motorcycle to spring upward a flip multiple times, in separate directions, before I impacted the ground head first.

Thank goodness my only injury was a broken finger and bruises.

**I owe my life to the intensive training I have taken and the full personal protective equipment (PPE) I was wearing that day. I am positive that is the only reason I was able to walk away from the mishap with only minor injuries.**

#### Q. What type of PPE were you wearing?

A. I was wearing a leather riding suit with neck brace, helmet, full length reinforced leather gloves and ankle high armored riding boots.

#### Q. What training have you taken?

A. I have taken several training courses offered at USMC locations that include Basic Riders Course, Advanced Riders Course, Total Control, and Military Sportbike Rider Course.

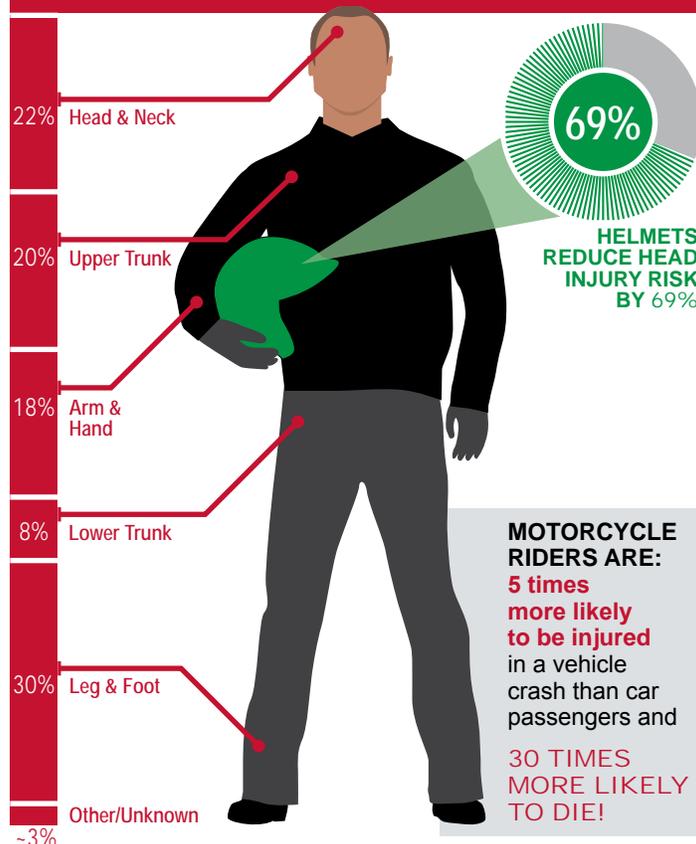
#### Q: Are you a member of the unit's Motorcycle Mentorship Program?

A. Yes. I have been actively involved in the each of the MMPs I have been assigned to and am also a member of the San Diego Riders Club.

#### Q. How long did it take you to ride again?

A. It took one month for me to get back on a motorcycle, but it took several months before I returned to the level of comfort I had before the accident.

### MOST COMMON MOTORCYCLE INJURIES



### Motorcycles By The Numbers

**NEARLY 50%** of all motorcycle fatalities involve **JUST THE MOTORCYCLE** and no other vehicle.

**↑ RIDER FATALITIES** have been **INCREASING** since 2008.

**LOSS OF CONTROL** is the number 1 most common cause of motorcycle fatalities, especially among Marines.

**5,172** MOTORCYCLISTS NATIONWIDE DIED in crashes in 2017.

Drivers of cruisers, standards, touring and sport-touring motorcycles have the lowest fatalities rates, while **SUPERSPORT MOTORCYCLES FATALITIES** are about **4 TIMES HIGHER** than those who rode cruisers or standards.

<https://www.iihs.org/iihs/topics/t/motorcycles/qanda>

Infographic Sources:

[http://afteramotorcycleaccident.com/infographics/common-motorcycle-injuries/CDC Motorcycle Safety Handbook](http://afteramotorcycleaccident.com/infographics/common-motorcycle-injuries/CDC%20Motorcycle%20Safety%20Handbook) • <https://www.cdc.gov/motorvehiclesafety/mc/> • <http://rideapart.com/2013/05/what-the-latest...motorcycle-safety/> • <http://www-nrd.nhtsa.dot.gov/Pubs/810982.pdf> • <http://www-nrd.nhtsa.dot.gov/Pubs/811208.PDF>

...And It Could Happen To You 5

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## Technology Keeping You Safe

Technology doesn't only have to be about function and style; it can help keep you safe. The National Highway Traffic Safety Administration (NHTSA) reports that 13 cars out of every 100,000 are involved in a fatal accident, but motorcycles have a fatality rate of 72 per 100,000. For every mile traveled, motorcyclists have a risk of a fatal accident that is 35 times greater than a car driver.

How is technology improving motorcycle safety? **With AUGMENTED REALITY.**

### What is Augmented Reality?

Augmented Reality (AR) technology has been widely accepted in the car industry. More cars offer a Head-Up Display (HUD) every year. The AR projection on the windshield reduces distraction by allowing you to see the navigation and driving indicators in front of you, instead of looking down at a traditional navigation panel or your phone. Several companies like Skully Technologies and Livemap are creating motorcycle helmets with this technology to reduce the risk of a motorcycle accidents the way the HUD does for a car.

### Technology Across Branches

The AR Technology being developed for motorcycle helmets is the same technology being used in fighter pilot helmets, allowing virtual navigation and targeting. Whereas fighter pilots once checked a head-up display on a windscreen for information such as airspeed, heading, altitude, rate of climb, and information about other aircraft, pilots now see all of this and more on their helmet visor — like the technology being incorporated into the new motorcycle helmets.

### How Does It Work?

The AR interface will allow you to view a projected image directly on your visor instead of using cumbersome and inconvenient displays. With the fully-integrated, intelligent, AR helmet that automatically adjusts output, you will get information about the route and important parameters, while still remaining fully focused on the road so you can arrive at your destination safely.



### What Will I See?

This new AR technology will not only help you keep your eyes on the road, but it will also help you stay more focused and avoid distractions. It allows you to see what is going on around you, ultimately making you a better, safer motorcyclist!



### Technological Features:

- Rearview camera
- Turn-by-turn navigation
- Smart phone integration
- Hands-free music control
- Situational awareness (Front & side view safety zone)
- Automatic emergency calling



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## Accountability

### It starts with you, but doesn't end there...

Drivers must start by holding themselves accountable, not just to policy, but to your family, your unit, and most importantly, yourself.

ACCOUNTABILITY

BEHAVIORAL CHANGE

FEWER MOTOR VEHICLE RELATED MISHAPS

Not getting enough sleep



Driving late at night



Mishap or fatality



Lost days at work and financial hardship for your family

Alternatively...

Getting enough sleep



Following your trip driving plan



Safe arrival / Avoidance of a mishap or fatality



No burdens on families or lost work days

THINK

PLAN

COMMUNICATE

REVIEW PROCEDURES

ARRIVE SAFELY

## Consequential Burdens

Recovery from a motorcycle or vehicle accident can create a multitude of physical, financial, and psychological burdens. Some burdens to consider are:

- **The physical recovery process** – Pain, hospital bills, and lost days at work. Recovery from an accident requires costly medical assistance and physical disabilities often make it impossible for the patient to work.
- **Psychological and emotional effects** – Need for counseling and fear of driving again. People can suffer from post-traumatic stress from being involved in the accident or from losing a loved one due to a traffic accident.
- **The cost of repairing or replacing a vehicle** – The Insurance Institute for Highway Safety estimates the average cost to repair a car after an accident was just over **\$4,000**. That does not include days lost from work or insurance increases.
- **The cost of repairing or replacing a motorcycle** – The average cost of a new motorcycle can be anywhere from **\$5,000 to \$35,000**. Motorcycles are more likely than cars to be totaled, leaving you not only replacement costs, but higher insurance premiums.

*Consider the toll that a crash could cause you, your family, and your wallet.*

## Maintenance Can Save Your Life And Your Wallet

There are several maintenance activities you can perform to make your PMV-2 or PMV-4 driving experience safer. Proper maintenance can not only **save you time and money, it can save your life!**

1



Acquaint yourself with your **owner's manual**

2



Change your **oil and oil filter** as needed

3



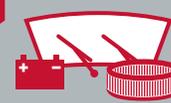
Check your **tires** at least monthly

4



Inspect **all other fluids** as needed

5



Inspect your **wiper blades, battery, and air filter** monthly

6



Perform a **basic pre-trip inspection** every time

*Get in the habit of conducting regular vehicle maintenance and you'll avoid potentially costly breakdowns, extend the life of your vehicle, and even potentially **prevent mishaps!***

## DID YOU KNOW?

From FY08 to FY18 Marines were involved in **163 motorcycle and 178 car fatal events.**

**MAYBE...  
YOU DRANK TOO MUCH  
DON'T MAKE IT WORSE**



**EVERY  
48 MINUTES**

someone died because of a drunk driving crash in 2017.<sup>1</sup>

**\$44 BILLION**



...is the annual cost of alcohol-related crashes.<sup>2</sup>



**17%**

of traffic fatalities involving children 0-14 (1,233), involved a drunk driver.<sup>2</sup>

1. [https://www.cdc.gov/motorvehiclesafety/impaired\\_driving/impaired-driv\\_factsheet.html](https://www.cdc.gov/motorvehiclesafety/impaired_driving/impaired-driv_factsheet.html)  
2. <https://www.nhtsa.gov/risky-driving/drunk-driving>

 **BEER**



Effective ways to avoid driving under the influence of alcohol:



**Designated Driver:** Have one person commit to not drinking, or arrange for someone else (not drinking) to pick you up when the party is over.



**Public Transportation:** If you need a ride home, public transportation—such as buses, subways, and trains — is an effective alternative to driving under the influence.



**Ridesharing:** Ridesharing companies like Lyft\* and Uber\* also offer a safe, affordable alternative to driving under the influence.

\*No DoD or Federal endorsement implied.



**USMC Arrive Alive Program:** The Marine Corps Arrive Alive Program allows Marines and Sailors to contact participating taxi companies that drive them to a predetermined location where payment will be provided for the fare. Although there are differences in the program at participating units, cards are usually available through the company headquarters.



**IF YOU SEE A MARINE OR A MEMBER OF THEIR FAMILY IN TROUBLE**  
Binge Drinking | Excessive Gambling | Relationship on the Rocks  
Uncontrolled Anger | Bullying or Hazing

**GET OFF THE SIDELINES!**



**DO SOMETHING ABOUT IT!**  
Text OWNIT to 555-888 or visit your  
Community Counseling Program.