



# FORCE PRESERVATION

*newsletter*

WINTER 2018

## IN THIS ISSUE

- Message From The Director . . . 1
- Blood Test For PTSD . . . . . 1
- Spiritual Fitness . . . . . 2
- Marines, Put Down Those Smartphones! . . . . . 3
- Marine Corps Reserve Force Preservation . . . . . 4

## Message from the Director



HQMC G-10 Executive Director,  
Dr. Michael Bermes

What words do you want other Marines to use in describing you? Are you a readiness detractor or readiness enhancer? What do you stand for when it comes to your honor, courage, and commitment to our Corps, Nation, and community? A legacy isn't only about what you've earned, it is also what you are learning. Are you leaving our 2017 Marine Corps in a better place as you move into 2018? Be mindful of what is important to you, your values, your contribution, your place in our Corps. Considering your legacy gives you a compass to help you move with purpose and determination even in the most challenging times. Let us move into 2018 with the resolve and grit to make our great United States Marine Corps a better place. Semper Fidelis!



## MISSION STATEMENT

*Provides the Commandant of the Marine Corps objective analysis and integrated policy solutions leveraging cross functional partnerships to inform Force Preservation initiatives and maximize total force readiness.*

## Blood Test for PTSD

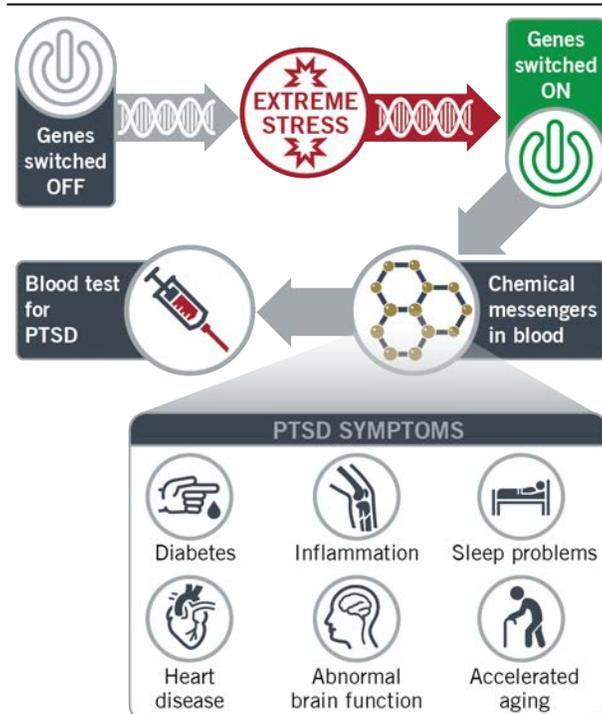
By Dr. William Nash

One of the greatest challenges for Force Preservation is recognizing which Marines are not full-up rounds because they have been injured by life stress (in the Orange Zone according to MCRP 6-11C) or made ill by stress (in the Red Zone), and which are perhaps just not as motivated as they used to be (still in the Yellow Zone at worst). Until now, we have had no objective tools to make that distinction, to discriminate between Yellow Zone on one hand, and Orange and Red Zones on the other.

A massive research project funded by the Defense Health Agency (DHA) on the Systems Biology of Posttraumatic Stress Disorder (PTSD) may soon change that. Led by Charlie Marmar, a psychiatrist at New York University, and Marti Jett, a systems biologist at the US Army Medical Research and Materiel Command (USAMRMC) at Fort Detrick, Maryland, the DoD PTSD Systems

*continued on page 2*

### How extreme stress can produce chemical messengers in the blood related to PTSD



## FOR MORE INFORMATION

Email [HQMC\\_G10@usmc.mil](mailto:HQMC_G10@usmc.mil) or at 703-692-5374.

If you have an item of interest for the Newsletter, please email SSgt. Chloe Honjiyo at [chloe.honjiyo@usmc.mil](mailto:chloe.honjiyo@usmc.mil).

*continued from page 1*

Biology Consortium has developed a blood test that discriminates between veterans who have war-related PTSD and those who do not, even though they had seen as much action in combat, and had the same level of early life challenges in their personal histories. In the original sample of combat veterans recruited at the Bronx VA, the new PTSD blood test was accurate in almost 90% of cases. In other samples – including 2,600 ground combat Marines enrolled in the Marine Resiliency Study from 29 Palms or Camp Pendleton before they deployed to OEF or OEF in 2009 to 2012 – the proposed blood test accurately identified the presence or absence of significant and persistent PTSD 70% of the time. Not bad for a first effort!

How is this possible? What chemicals could we possibly have found in the blood of Marines and veterans that are specific for chronic PTSD?

The answer comes from our emerging understanding of how genes can be switched on or off by stress and other environmental factors – from a new science called "Genomics." Most of us have heard of Genetics—the study of how individual genes code for specific traits, some of which may increase risk for certain diseases. But for most health problems – especially those triggered by stress like PTSD – the presence or absence of variants of individual genes has not proved very helpful. The revolution of Systems Biology was made possible by the discovery that what matters more than which genes a person has is which of those genes are switched on, in what context, and for how long. It's the switching on of specific genes that tells our bodies how to respond to any challenge, such as when and how to clot blood in a wound and when and how to grow new tissue to heal a wound.

Chronic illnesses may all be traceable back to the persistent switching on of specific genes. The success of the DoD Systems Biology Consortium's blood test for PTSD is based entirely on the fact that each switched-on gene produces specific chemical messengers somewhere in the body, and enough of those PTSD-specific chemicals can be found in an ounce of blood to infer the presence of PTSD.



It will take several more years to refine the PTSD blood test and obtain approval from the Food and Drug Administration to begin using it in clinical settings, but we will get there. Our PTSD blood test should help future health care providers accurately diagnose PTSD. It should also help us track progress toward recovery and reintegration with effective treatment -- by tracking reductions in chemical markers in blood over time -- and maybe best of all, help us better understand the enigma of PTSD so we can better prevent it.

## Spiritual Fitness

By CDR Ronald Nordan

At boot camp when you first saw those infamous yellow footprints, you knew that one set was for you to stand on, but you also saw many other sets of footprints which would be filled by fellow recruits. Throughout the weeks of training, you learned to trust the Marine to your left and your right, and to have faith in the Marine Corps. For most, that faith and trust continues to develop throughout the course of time in service.



*Recruits are welcomed to the depot by the chief drill instructor as they step onto the yellow footprints during receiving at Marine Corps Recruit Depot San Diego. (USMC photo by Cpl. Angelica I. Annastas)*

In her 1968 album entitled "Baptism, A Journey Through our Time," Joan Baez, an American folk singer, song writer, and musician, used a well-known phrase "No Man is an Island" for a short song. This phrase was first penned by 17th century poet John Donne. A central theme that her song highlights, as well as Donne's poem, is the fact that there is an inherent need in each of our lives for connectedness to something or someone outside of our selves.

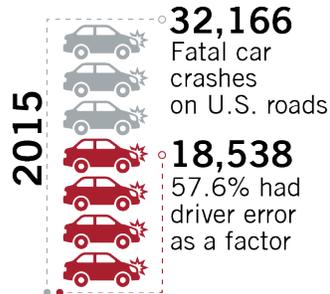
In order to develop and maintain a high standard of spiritual fitness, the concept of developing a personal faith must take top priority. Personal faith can be defined as "the belief or trust in self, and something or someone greater than self." It is important that each Marine recognize, develop, and put into practice the unique beliefs, principles, and values that will help them to persevere and prevail. Whether that be through practicing ones individual faith, or establishing meaningful support relationships, it is essential to plug into those sources to help develop and maintain spiritual fitness. As the New Year is on us, take up the challenge to be holistically fit in body, mind, and spirit. In the end, the benefits will be immeasurable.

## Marines, Put Down Those Smartphones!

By CMC Safety Division

**Surged U.S. traffic fatalities of 14.4% within the last two years suggest death-by-distraction is a growing problem**

Over the past two years, U.S. traffic fatalities have surged by 14.4 percent. In 2016 alone, more than 100 people died each day in or near vehicles in America—the first time the country has passed that grim toll in a decade. So why are crash-related deaths believed to be from distracted driving spiking? Regulators and experts cannot explain the surge in road deaths and data isn't always captured uniformly or frequently due to differing state laws; however, there are big clues that lead to educated guesses based on the following statistics. One, as you may have guessed, is the substantial increase in smartphone use by U.S. drivers as they drive. From 2014 to 2016, the share of Americans who owned an iPhone, Android phone, or something comparable rose from 75 percent to 81 percent. The second is the changing way in which Americans use their phones while they drive. According to Bloomberg News, these days, we're pretty much done talking. Texting, Twitter, Facebook, and Instagram are the order of the day—all activities that require far more attention than simply holding a gadget to your ear or responding to a disembodied voice. By 2015, almost 70 percent of Americans were using their phones to share photos and follow news events via social media. In just two additional years, that figure has jumped to 80 percent.



Americans have adapted to a smartphone culture that overtakes much of our everyday life in the last ten years. Although cell phones make communication much more convenient, while driving, it can be deadly.



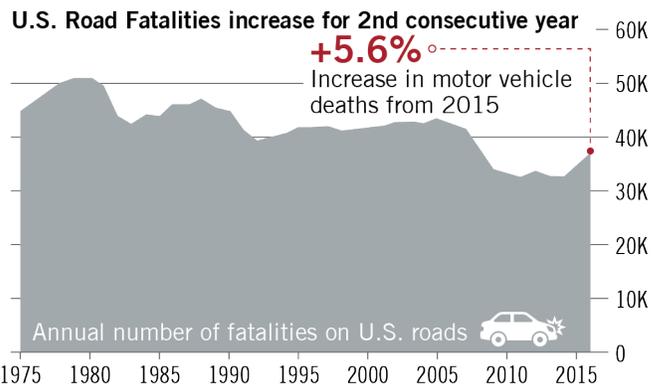
Motorists who use cell phones while driving are four times as likely to get into crashes serious enough to injure themselves, according to the National Highway Transportation Safety Administration (NHTSA).

*According to Base Order 5560, the order regarding base motor vehicle and traffic regulations, driving a motor vehicle while talking on a cellphone or texting without a hands-free device is prohibited. (USMC photo by Cpl. Harley Thomas)*

Graphic sources: National Highway Traffic Safety Administration



*Text messaging requires visual, manual and cognitive attention from the driver. It is by far the most alarming distraction and puts the vehicle at 23 times more risk of an accident than focused driving, according to the Virginia Tech Transportation Institute. (USMC photo by Cpl. Melissa Wenger)*



Although we're doing better than the national average, Marines have still seen a modest spike in numbers as well; especially in motorcycle and pedestrian deaths. Marine Corps automobile deaths are below the national average (and falling), but motorcycle deaths are increasing. One possible explanation is that pedestrians and motorcycles are harder for distracted drivers to see than cars. We must frequently remind our Marines to drive defensively and anticipate the actions of other drivers. Increase vigilance and avoid distraction by not using cell phones while driving at all.

Finally, in 2016, nearly six thousand pedestrians were killed by distracted drivers in the U.S., which is an increase of more than one thousand since 2014—that's more than a 20 percent increase in just two years. This is something to think about the next time you're glancing at your phone, rather than concentrating on the road ahead. It's a real-eye-opener. Put those cell phones down and stay vigilant. It only takes a matter of seconds to lose your life or someone else's.

## Marine Corps Reserve Force Preservation

By George Jacobs

The continuous employment of MARFORRES forces since 2001 has produced a core of combat-experienced reserve Marines that are the most capable in our organization's history. In an operational role, the Reserve Component has supported requirements across the range of military operations from combat operations in Iraq and Afghanistan to humanitarian assistance efforts in Haiti. In this way, it serves as a purpose-built "shock absorber" during times of high operational tempo that allows the Marine Corps to continue being ready when the nation is least ready.

The most essential ingredient to the success of the Marine Corps Reserve has been the caliber of the individual Marine. Marine Forces Reserve is composed of over 40,500 drilling reserve Marines that must balance family lives and civilian careers with military service. Serving 38 days a year on active duty drill status (one weekend a month and two weeks in the summer) they are dispersed across 160 sites across the continental U.S., Hawaii, Alaska and Puerto Rico. These units and Marines support the vast majority of Marine Corps community relations efforts, from color guard details, to static displays of equipment to support of the Toys for Tots program. They also shoulder the majority of the solemn duty of providing funeral honors for our nation's fallen warriors. In short, Marine Forces Reserve is the face of the Marine Corps for the vast majority of Americans. Equally unique are the challenges Force Preservation advocates face in providing services to this demographic when they are in a non-duty status. Often times, medical injuries, law enforcement interaction, psychological counseling, domestic violence issues go unreported because there is no continuous linkage or reporting mechanism, like their active duty counterparts.



USMC photo by CW04 Georgi Hernandez

Reserve Marines bring unique skills and advanced degrees from their civilian occupations into their service with the Marine Corps.

The breadth of their experience is extensive and includes occupations such as police officers, fire fighters, federal agents, mechanics, city planners, politicians, truck drivers, information technology and cyber professionals, carpenters, electricians and business owners. The depth and diversity of experience is a force enabler that adds enormous value to the Marine Corps and the modern battlefield. As Force Preservations advocates we must ensure that we remain committed to the spiritual, physical and mental welfare of our Reserve Marines.



Staff Sgt. Ryan K. Stogner is a reserve Marine currently activated in the Individual Mobilization Augmentee program, and also a police officer with LAPD's Special Problems Unit. (USMC photo by Sgt. Marcy Sanchez)



Marines with Echo Company, 2nd Battalion, 24th Marine Regiment, 4th Marine Division, Marine Forces Reserve prepare to move to their next objective during a live-fire Integrated Training Exercise. (USMC photo by Pfc. Melany Vasquez)

<sup>1</sup>SELRES – 38,979, IMA – 2,571. Numbers as of Sep. 15, 2017