

# FY19 FATALITIES

as of 14 March 2019

Aviation  
**6**

Ground On-Duty  
**1**

Car  
**6**

Motorcycle  
**4**

Other  
**5**

TOTAL  
**22**

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

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# COMBATTING THE BLUE THREAT

COMMANDANT'S SAFETY ACTION CAMPAIGN

## Listen Up!

### From the Director...

Marines and sailors, hearing loss is **PERMANENT**. The harsh truth is that, if left unmitigated, the day to day threats we face can and will damage your hearing. That damage is exacting, and over your career it takes a hefty toll. Much like a death by a thousand cuts, each damaging exposure will seem insignificant to you. You won't recognize the incremental degradation, and when you finally do, the damage is already done.

When you consider that the Department of Veteran Affairs reports hearing damage as the top disability resulting from military service, hearing conservation merits much more attention than it generally receives. The goal of

hearing conservation is to reverse the trend of hearing loss. Help us protect you. You must receive annual hearing readiness training to understand the situations and activities that present potential for hearing damage. You are fitted for Hearing Protection Devices (HPD) to help prevent hearing loss when harmful noise levels can't be avoided. And you're required to take annual audiogram tests to ensure early detection of any hearing loss. These efforts are designed to better ensure you have a full life after your service.

Listen up, Marines. Hearing loss is permanent, but it's also completely preventable.

### Inside this Edition...

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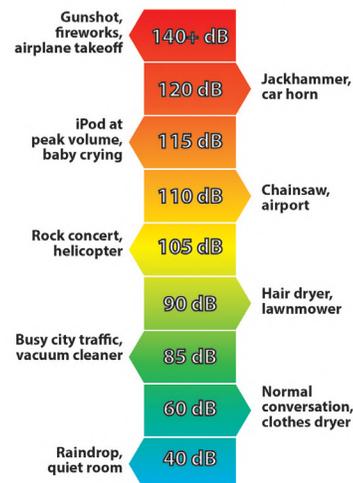
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## The Blue Threat of Noise

Marine Corps Order 6260.3A provides the policy and procedures to protect the hearing readiness of personnel, including the elimination or reduction of noise hazards through engineering controls. However, many engineering controls are not practical or feasible in tactical weapons, aircraft, tanks, and artillery, resulting in a need for limited exposure time and/or the use of HPD.

Firearms, artillery, and munitions, along with noise from tactical vehicles and aircraft engines, are ever sources of noise for a Marine. Marines don't need reminding that they encounter a variety of loud equipment and functions throughout their career. Among the many examples of imperative situations, being able to hear navigational direction in a vehicle, fire control orders, instruction on patrol, approaching threat, and stop commands are just a few mission-critical auditory tasks (MCATs) necessary to maximize lethality and survivability in the military.

### COMMON DECIBEL LEVELS



**DID YOU KNOW?** A muted majority. Fifty two percent (52%) of combat veterans have moderate hearing loss or worse.

# FY19 CLASS A MISHAPS

## AVIATION

### 3 CLASS A AVIATION MISHAPS

- 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, CA; Two FA-18Cs collided in mid-air while conducting CAS. Both aircraft landed safely with no injuries.



## GROUND ON-DUTY

### 2 CLASS A GROUND MISHAPS

- 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 MISHAP

- 12 October 2018: PMV-4, Snyder, TX; E-1 drifted onto the shoulder of a highway, overcorrected, 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; E1 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.

### 4 CLASS A MOTORCYCLE MISHAPS

- 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.

### 5 CLASS A OTHER MISHAPS

- 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.
- 10 March 2019: Pedestrian, Huntington Beach, CA; E-3 was struck by a vehicle while crossing the road.



# Hearing Conservation Program

Noise-induced hearing loss can be caused by brief, intense bursts of noise or through steady, long-term exposure at significantly lower frequencies. According to the Center for Disease Control (CDC), prolonged exposure to noise levels at 85 decibels (dB) or higher can cause damage to hearing. CDC sponsored studies find that noise levels above 120 dB can cause immediate harm to an individual's hearing. ***With this in mind, the Marine Corps has established a Hearing Conservation Program to inform about and prevent hearing loss caused by the many contributing factors Marines are exposed to daily.***

Commanders, Commanding Officers, and Officers in Charge shall ensure their Marines, assigned Sailors and exposed civilian personnel are trained, fitted for hearing protection devices, and tested for hearing loss. Due to exposure to hazardous noise, "an adequate, readily accessible supply of hearing protection with appropriate Noise Reduction Ratings (NRRs) shall be available in work areas and passageways leading to high noise areas and at military firing ranges."

It is clear that hearing loss prevention and awareness is imperative for the current duties and future livelihoods. Veterans impacted by hearing loss often find that their relationships with family and friends are compromised, and their desire to engage in activities that require hearing can be affected, as well. When they are no longer able to hear their spouse or children in conversation or effectively hear the audio in a movie theater, it isn't uncommon to withdraw from these types of situations which would have normally been enjoyable. Protective measures and corrective actions taken now can go a long way towards reducing these future impacts.

With all this noise in a Marine's life, it is clear that hearing loss prevention and awareness is imperative for the current duties and future livelihoods. Protective measures and corrective actions can go a long way in reducing these impacts.

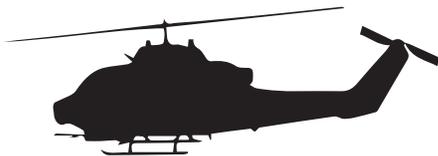
## TACTICAL EQUIPMENT & NOISE



**88 dB**  
Noise Level of HMMWV  
traveling at 50 mph



**156 dB**  
Approximate Noise Level  
of an M16 Rifle



**97-106 dB**  
Noise Levels for Interior of  
Service Helicopters/Fighters



- S** Sustained Noise Levels
- P** Peak Noise Levels
- Hearing Protection Required
- Double Hearing Protection Required

### DID YOU KNOW?

**The numbers are telling.** A significant portion of Veterans leave the military with lasting hearing loss, including tinnitus. Veterans from Iraq and Afghanistan – up to 26.6% of male veterans and 13.4% of female veterans – are estimated to have been affected by hearing loss.

## Hearing Conservation Program (cont.)

### Proper Insertion of Ear Plugs

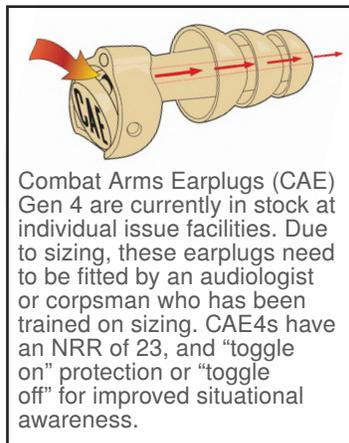


- 1 With clean hands, roll plug into a tight, elongated cylinder.
- 2 With opposite hand, reach over head and pull up and back on outer ear to straighten ear canal.
- 3 Insert earplug well into ear canal and hold in place for 20-30 seconds until it expands for a comfortable, secure fit.

### HEARING PROTECTION DEVICES

Many Marines consider an earplug to be a disadvantage. Situational awareness is one of the most important elements of military combat, but many Marines claim that the devices and equipment meant to protect their hearing can sometimes dull their senses, leaving some to ditch the protective gear altogether.

While the fear of impaired hearing on the battlefield is justified, hearing damage in the military is so pervasive that it presents no less of a danger to Marines. As the most common service-connected disability among American Veterans, hearing damage is considered the top disability resulting from military service. This is why the Marine Corps Hearing Conservation Program (HCP) requires commanders, at all levels, to be diligent and aggressive in the enforcement of its HCP requirements. Per MCO 6260.3A, Marine Corps Hearing Conservation Program (HCP), all Marines and assigned Sailors are enrolled in the HCP, while civilian personnel are enrolled if their occupation exposes them to hazardous noise.



Combat Arms Earplugs (CAE) Gen 4 are currently in stock at individual issue facilities. Due to sizing, these earplugs need to be fitted by an audiologist or corpsman who has been trained on sizing. CAE4s have an NRR of 23, and “toggle on” protection or “toggle off” for improved situational awareness.

The NRR is a measure listed on the packaging of hearing protection devices that indicates the amount of potential protection offered by the device. Actual field

attenuation of HPD may be less than indicated (see Table A-1 of MCO 6260.3A). Earplugs and earmuffs are the two most common protective devices, and each tend to offer a reduction of 15 to 30 dB. Doubling up these items – wearing both earplugs and earmuffs, simultaneously – can provide an additional 10 to 15 dB of protection, and is recommended for use when noise levels exceed 105 dB. MCO 6260.3A requires that Commanders consult with industrial hygienists to determine appropriate HPD at firing ranges.

Aviators, in particular, can benefit from a helmet that fits snug, includes a hush kit, and utilizes a Communication Ear Plug (CEP) with either custom or disposable Comply eartips.

Failing to use – or incorrectly using – hearing protection devices in these conditions would likely result in lifelong hearing damage for the individual.

### ANNUAL TESTING

All Marines, assigned Sailors, and exposed civilians are required to complete a baseline (reference) audiogram prior to noise exposure. After a baseline test is conducted, all ensuing (annual) audiograms will be compared to the first in order to determine whether there have been any changes. While personnel might not consciously recognize a change in their hearing, noise-induced damage can often be gradual, so regular audiograms will help medical staff to identify changes as early as possible. Once significant change occurs, commanders, supervisors, and individuals’ are notified to take preventative or corrective measures.

If you have a significant change in your hearing for the worse, consider this a warning to take corrective action.

Depending on the severity of hearing loss, individuals can benefit from a number of options. Whether they require limited exposure to noise levels, surgery, or hearing aids, there are methods and technologies available to support active-duty, retired, and civilian Marines. Contact your local Hearing Conservation Department or Audiology Department for more information on audiograms, hearing loss, and other noise-related issues.

### DID YOU KNOW?

**We want to hear from you!** The Blue Threat is any condition, action, or situation within our own organization that results in unnecessary risk—and we’d like your feedback on it. If you have any questions or comments about this or any edition of our newsletter, or if you have a topic you would like addressed, email us at [bluethreat@usmc.mil](mailto:bluethreat@usmc.mil).

## Bravo Zulu

### Recognizing Excellence in Ground Safety

**Congratulations to the recipients of the 2018 Marine Corps Ground Safety Awards!** These honors recognize commands and individuals for outstanding achievements and significant contributions in the field of safety, mishap prevention, and force preservation over the course of FY 2018.

- Marine Corps Warrior Preservation Award: Marine Corps Air Facility, Quantico
- Marine Corps Individual Superior Achievement in Safety Awards:
  - Officer: Capt Andrew W. Baity, HMLAT-303
  - Enlisted: Sgt Benjamin T. Music, VMFA-323
  - Civilian: Mr. Christopher S. Field, 2d Marine Division
- Marine Corps Achievement in Safety Awards:
  - Group I: MCAS Cherry Point
  - Group II: MCAS Beaufort
  - Group III: Marine Depot Maintenance Command
  - Group IV: 1st Reconnaissance Battalion

The respective Commanding General for each unit and individual will present these awards on behalf of the Commandant of the Marine Corps.

All nominees are commended for the significant contributions made toward reducing mishaps, increasing mission readiness, and preserving our most precious asset – our Marines. Bravo Zulu to all on a job well done.

### Hearing Conservation Readiness: Call to Action

Below are the USMC commands that have met or exceeded the Marine Corps hearing conservation readiness goal of 85%.

- MARFORCOM
- III MEF
- MARSOC
- TRNGCMD
- 2nd MAW
- 26th MEU
- CE 5th MEB
- 1st MARDIV
- 3rd MAW
- 1st MAW
- 3rd MARDIV
- 3rd MLG
- TECOM Students/Recruits
- HMX-1

Overall periodic compliance for active forces is 65%, meaning that our fellow commands are encouraged to rise to the standards set by the units recognized above.

### DID YOU KNOW?

**Unintended side effects.** A 2015 study found that 72% of veterans experiencing tinnitus also had a diagnosis of anxiety, 60% dealt with depression, and 58% had both conditions. Being proactive in regard to hearing conservation can have a lasting, positive impact on your entire lifestyle.

# Audiogram Interpretation for Aviators

CDR Andy “Lurch” Hayes



## What do Marines need to know about audiogram interpretation?

An audiogram tells us how well we detect frequencies of noise, measured at six frequencies.

Aviation hearing standards consider three frequencies (500, 1000, and 2000 Hz), considered to be temporary hearing loss that is mechanical in nature and restricted to the outer and middle ear.



Noise-induced hearing loss will first manifest at 4000 Hz if caused by continuous noise (i.e., lasting longer than half a second, such as aircraft engine noise) or at 6000 Hz if caused by impact noise (i.e., lasting less than half a second, such as fire arms). Hearing loss caused by noise will not show up at 500, 1000, or 2000 Hz. Hearing loss at 500-2000 Hz would most likely be a conductive or temporary hearing loss that is mechanical in nature and restricted to the outer and middle ear. Hearing loss at 3000-6000 Hz would most likely be a sensory hearing loss that is restricted to the inner ear or cochlea.

## Did I pass?

Pilots are often paranoid about taking hearing tests for fear of being disqualified from flight duty, but the truth is, most likely, you will pass... unless you take your annual audiogram while sick or congested, as this may cause a temporary change in your hearing at 500, 1000, or 2000 Hz.

A head cold can create a conductive hearing loss, so avoid scheduling an audiogram if you may be sick.



The most important thing audiograms look for in Marine pilots is “has my hearing significantly changed at 3000, 4000, or 6000 Hz?” The Hearing Conservation Program exists to notify you of changes in your sensitivity to sound.

For the past three years, I have been working as an Aircrew Systems Requirements Officer at Headquarters Marine Aviation and am pleased to report that aircrew hearing protection will be funded starting in Program Objective

Memorandum Fiscal Year 2021 (POM-21), providing additional hearing protection options for aircrew and maintainers. Hearing loss is not just an occupational hazard. Start using hearing protection not just on the range but also in your tree blind because one shot can cause permanent hearing loss.

## What else should you know?

*Take your next hearing test honestly.* Now that you know you will pass the hearing test, be honest. Press the button when you hear a tone. Don't provide test results that are not repeatable. The Hearing Conservation Program is for your benefit, but that is all for naught if you are dishonest or worried to the point of pressing the button without truly hearing the pure tone frequency. When you respond without reason, you end up taking an excessive amount of time to complete the test. It may sound crazy, but taking the test honestly will get you on your way sooner and will give you a true sense of your hearing health.

Taking the auditory test honestly will give you a true sense of your hearing health!

**DID YOU KNOW?** The kind of statistics we don't want to hear. One fifth of all hearing aids sold in the United States are purchased by the Department of Veteran Affairs.

# Marine and Family Programs Update

## Understanding the Stress Continuum



The Stress Continuum model, pictured above, shows the progression of stress levels from ready (green), reacting (yellow), injured (orange), and ill (red). Talking about stress in these four zones helps to identify individual and unit stress levels, while enabling us to proactively manage challenging situations, before they become unmanageable.

- Green is not the absence of stress. Proactively working towards the Green is done by using self-support (the mental, physical, spiritual, and social ways we relax, unwind, and prepare for challenges) and good decision making. A change in behavior from a Marine's usual patterns indicates movement out of the Green.
- Yellow stress reactions are usually common, temporary, and reversible. Most everyone goes in and out of the Yellow. After the stress is removed we go back to Green.
  - ▶ Examples of Yellow stressors may be getting cut-off in traffic, unexpected bills, or an argument with a family member or significant other. Marines experiencing Yellow stress reactions for a long time are at higher risk for Orange stress injuries. Also, a single overwhelming event, such as the loss of a close friend or family member, can instantly transition someone from the Green into the Orange.
- Orange stress injuries are serious and may not resolve without help. Those in the Orange may not feel like their normal self for weeks, months, or even years after the stress event.
  - ▶ Connect individuals with a small unit leader, corpsman, chaplain, medical, MCCS resource, or DSTRESS Line (domestic and international 1-877-476-7734; Okinawa and MCAS Iwakuni DSN 645-7734 and local cell/landline 098-970-7734). Inform the chain of command and, if necessary, refer to a care provider and stay with any at-risk Marine until help arrives.
  - ▶ It is crucial for leaders and peers at all levels to recognize persistent change in behavior or personality early, and ensure the appropriate help is received. In some cases, if help is not received, the Marine's situation may worsen transitioning into the Red.
- Red diagnosable illness are considered a serious matter and it can happen to any Marine. Distress that significantly impacts a Marine's career or relationships indicates Red and requires assistance. Untreated diagnosable issues, such as anxiety or depression, increase the risk to Marines, their families, their units, and the mission.

Marines experiencing significant stress must be active in their healing and lean on the support of trusted relationships. It's critical to identify the signs early, in yourself, in another Marine, or even in family members. When you see something, do something. We need to take care of each other and our families. Connecting with help is proactive and promotes resilience. For more information see the MAPIT Dashboard, located at <https://ehqmc.usmc.mil/sites/family/mfc/MAPIT/SitePages/Home.aspx>, which houses material to meet unit needs (e.g., guided discussions, podcasts, and standard rules of engagement for safe and effective communication).