GROUND WARRIOR

THE MARINE CORPS GROUND AND NAVAL EXPEDITIONARY WARFARE SAFETY MAGAZINE

WINTER 2024

RISK MANAGEMENT

BLAST OVERPRESSURE

AN INVISIBLE THREAT

MISHAP PREVENTION

IDENTIFICATION & REPORTING

AWARDS

SAFETY AWARD WINNERS

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A Letter from the Commander
Naval Safety Command

Marines, Sailors and civilian professionals,

I have recently assumed the duty as Commander, Naval Safety Command and I am excited to work with you to instill and promulgate a culture of risk analysis and personal responsibility.

As a career FA-18 pilot I know first-hand the value and importance of maintaining risk awareness and embodying the tenets of risk identification, risk management and having situational awareness. There are magnificent resources and tools that the Safety Command provides to our Marines and Sailors.

SAFE OPERATIONS = EFFECTIVE OPERATIONS. Whether you are operating a tactical vehicle, practicing free-diving during training, conducting a nighttime convoy operation through unfamiliar terrain or operating Mk 19 Grenade Launchers, practicing real-time risk management is imperative.

My commitment to you is to provide a robust foundation in data analytics, risk assurance and safety policy. I am confident that NAVSAFECOM will remain your one-stop shop for building and maintaining the safety culture within our Marine Corps ground and Navy expeditionary organizations.

Safety Command provides myriad resources and Ground Warrior Magazine has good reach. This issue contains articles on critical topics such as the effects of blast overpressure (BOP) on the human body and normalizing deviance from procedures and mishap reporting. The Department of Defense is taking action to improve personnel safety measures to address BOP effects, and I encourage you to take a minute to read the article and learn more about this critical issue. Normalization of deviance remains a recurring concern amongst our Navy and Marine Corps organizations. Deviating from established instructions and procedures is not acceptable. A perceived rush to meet timelines is a reality but potential dangers that can arise from ignoring that instruction or procedure can be catastrophic. Mishap reporting is a key element in our risk management toolbox. Check out the article on page 16 to ensure you are aware of the steps and key personnel to notify in case a mishap occurs on your watch.

Risk assessment in every operation is of primary importance such we can execute the mission. We appreciate and welcome your feedback and input on how we can improve as a team – we are a learning organization as well.

safety policy. I am confident that NAVSAFECOM will remain your one-stop shop for building and maintaining the safety culture within our Marine Corps ground and Navy expeditionary organizations.

Warfighting first!

Dan "Dino" Martin
Rear Admiral, United States Navy
Commander Naval Safety Command

A Letter from the Director
Commandant of the Marine Corps - Safety Division

Marines, Sailors, civilian teammates and families,

It is with great pleasure that I introduce myself to both the Ground Warrior readership and the greater safety community as the new Director of Safety Division at headquarters Marine Corps. I am privileged to assume the mantle of responsibility to preserve and set conditions for operational readiness across the Service.

If history or nature have shown us anything, it is that organizations which fail to adapt will become irrelevant or extinct. As the Marine Corps continues to transition to face new threats and evolve through Force Design initiatives, we must continue to adapt and sustain the transformation.

Safety Division is restructuring and expanding to meet the needs of the Corps. As the first General Officer to head Safety Division, I aim to make immediate gains in safety across the service while laying a foundation for future success. My vision for Safety Division is to transition it into an organization that enhances warfighting readiness by fostering a robust, “just”, “learning”, and “reporting” safety culture throughout the institution that prevents mishaps, reduces material losses, and prevents fatalities, injuries, and occupational illnesses.

To meet that vision, we must establish goals to allocate and prioritize resources and to measure, track, and assess our progress. To that end, my immediate goals for Safety Division include: (1) Ensure all hazards are reported, recorded, analyzed, and reconciled; (2) Improve alignment between Marine Corps ground and aviation safety cultures; (3) Increase Safety Division utility to the institution; and (4) Increase institutional performance in the Marine Corps Safety Management System (MCSMS). Safety Division will strive everyday along various lines of effort to make incremental and continual progress towards these goals.

The bottom line is this: We must operationalize safety throughout our warfighting culture to preserve our Marines, Sailors, and equipment to face tomorrow’s challenges. There is no such thing as an acceptable loss, especially when those losses come either through training or during our day-to-day activities off-duty. Leaders and Marines at all levels must utilize risk management, ruthlessly adhere to established standards, foster positive and just safety cultures, and establish safety-oriented goals for their organizations.

Learn from your mistakes and utilize your available resources, such as this edition of Ground Warrior magazine. Protect yourselves, your Marines, Sailors, civilian teammates, and your families.

Semper Fidelis,

Douglas “Swami” Sanders
Brigadier General, United States Marine Corps
Director, Commandant of the Marine Corps - Safety Division

FEATURES

GROUND WARRIOR EDITORIAL STAFF

Front cover: U.S. Marine Corps Cpl. Bryan Brown, a cannoneer with Charlie Battery, 1st Battalion, 12th Marine Regiment, pulls the lanyard of an M777A2 Howitzer during a direct fire artillery training event aboard Pohakuloa Training Area. (U.S. Marine Corps photo by Sgt. Luke Kuennen)

Back cover: U.S. Marine Corps Sgt. Taylor Mathis, a service level training instructor with Tactical Training and Exercise Control Group, coaches Marines during Integrated Training Exercise 4-24 at Range 400, MCAGCC, Twentynine Palms, California. (U.S. Marine Corps photo by Lance Cpl. Richard Perez Garcia)

Ground Warrior Magazine is a forum where Marines, Sailors and civilians can share safety-related experiences, thereby providing valuable lessons learned to others within the community. Input from the fleet is crucial in improving safety culture, conducting safe operations, and thus, maintaining readiness. Ground Warrior is published jointly between the Commandant of the Marine Corps Safety Division and the Naval Safety Command. Content within Ground Warrior does not necessarily represent the official views of, nor is it endorsed by, the U.S. government, Department of Defense, U.S. Navy or U.S. Marine Corps. Photos and artwork may be representative and not necessarily show the people or equipment discussed. The Ground Warrior editorial staff reserves the right to edit articles for readability. Reference to commercial products does not imply endorsement. Unless otherwise stated, content may be reprinted without permission by giving proper credit to the magazine, author and photographer when applicable.

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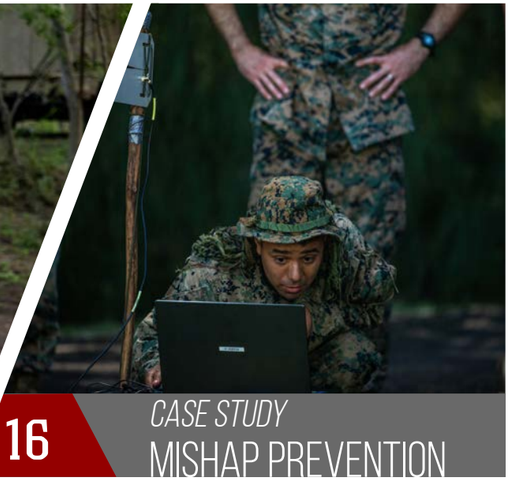
www.navalsafetycommand.navy.mil



Marine Corps Mishaps: FY23 to FY24 Comparison

The Marine Corps was safer in FY24 in comparison to FY23. Institutional investment into safety staffing and initiatives are gaining traction throughout the service, producing institutional dividends.

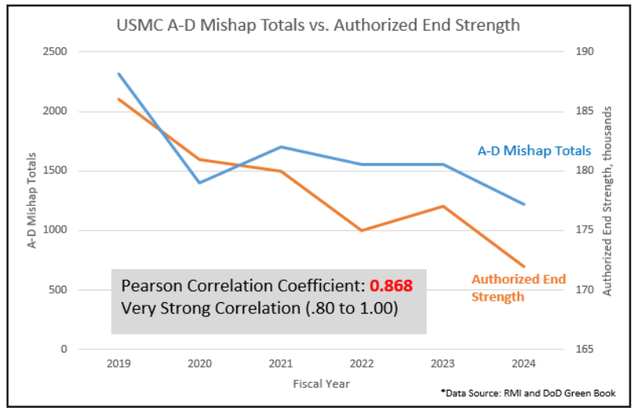
FY23 to FY24 Marine Corps Mishap Comparison

	Total	Class A	Class B	Class C	Class D	Class E
Number	+6%	-5%	-32%	-5%	+18%	-5%
Cost	-46%	-45%	-26%	-263%	-19%	-25%

*All data provided and consolidated by CMC Safety Division and Naval Safety Command (NAVSAFECOM).

Data in context

While the Marine Corps efforts and initiatives have produced overall reductions in both number and cost of mishaps across the Service, the mishaps reductions also correlate to the drop in Marine Corps' authorized end strength numbers. Having less Marines seems to correlate with less reported mishaps within the service.



**All data consolidated by CMC Safety Division. Data Source: RMI and DoD Green Book. Current as of 23 Oct 2024.

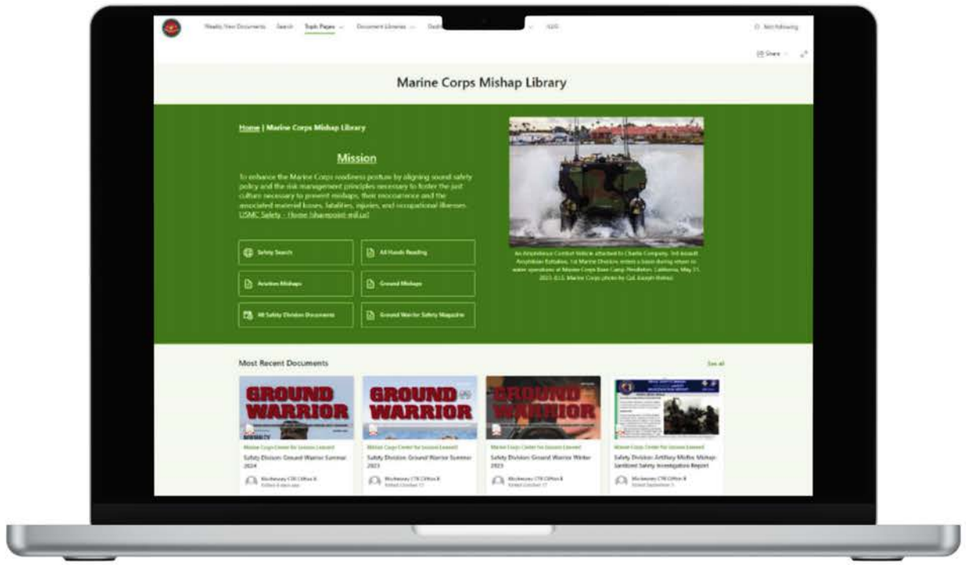
Identified Trends

Motorcycle mishap fatalities doubled (+100%)
Leaders at all levels need to validate their Marines with motorcyles are properly tracked, enrolled, and trained within the Marine Corps Motorcycle Mentorship Program (MMP) at their respective commands.

Private Motor Vehicle (PMV) mishap fatalities have decreased (-67%)
Speed, driving under the influence, and drowsy driving continue to be the main factors associated with PMV fatalities.

Aviation Ground Handling Class A mishaps equaled Aviation Flight-Related Class A mishaps
Aircraft ground handling operations Class A mishap have tripled since FY2023, showcasing that Marines need more training, controls, and experience moving aircraft at air stations and onboard naval vessels.

The Marine Corps Mishap Library is Now Accessible on SharePoint!



Previously hosted on https://www.marinenet.usmc.mil/, the Mishap Library is a tool for safety officers and leaders at all levels to review mishaps relevant to their unit's mission or activities to prevent mishap recurrence and to learn from the mistakes of others.

The Mishap Library is also now co-located with the Marine Corps Center for Lessons Learned (MCCLL) (https://usmc.sharepoint-mil.us/sites/TECOM_MCCLL (CAC Enabled), providing users opportunities to learn from the experiences of leaders and Marines from the fleet- in addition to the hard lessons learned from mishaps.

Scan the QR Code to access the Marine Corps Mishap Library.
(CAC Enabled QR Destination)

BLAST OVERPRESSURE: AN INVISIBLE THREAT

Blast Overpressure (BOP) is the invisible shock wave of high pressure projected from a blast and its effects threaten the health and readiness of military service members in a variety of ways. Understanding how BOP causes damage to people and their surroundings could help protect service members from injuries.

Article By Tiana Hertenstein, M.S., CSCS, Timothy Gribbin, Med, ATC, CSCS; Clinical Research Associates, Henry M. Jackson Foundation for the Advancement of Military Medicine; In collaboartion with Consortium for Health and Military Performance (CHAMP)

The use of explosives is an essential part of the military. Bombs, grenades, rockets, breaching charges, mortars and other explosives are crucial components of America's arsenal – and those of our enemies. When an explosion causes a sudden release of heat, light and sound, the energy causes the air around the point of the explosion to expand outward faster than the speed of sound. The blasts produced by these explosives throw shrapnel, extreme heat and piercing sound at their targets. However, perhaps the most dangerous – yet least understood – effect of an explosion is blast overpressure.

"SERVICE MEMBERS REGULARLY EXPOSED TO EXPLOSIVES OR HIGH BOP-PRODUCING WEAPONS SYSTEMS, SUCH AS MORTAR AND ARTILLERY CREWS, HEAVY WEAPONS TEAMS, EXPLOSIVE BREACHERS AND EXPLOSIVE ORDNANCE DISPOSAL PERSONNEL, EXPERIENCE BOP AS A REGULAR PART OF THEIR JOB AND ARE ALSO MORE LIKELY TO EXPERIENCE TBIS."

OVERPRESSURE OVERVIEW

Blast overpressure is one of the most damaging effects of an explosion. Measured in pounds per square inch (psi) or kilopascals (kPa), the rapid wave of high pressure blown outward from the explosion delivers a devastating impact on the surrounding environment. A blast producing as little as 1 psi of overpressure can shatter windows within its blast radius. Explosions producing BOP over 5 psi can destroy concrete walls and buildings.

Injuries from a single BOP don't typically occur until someone experiences BOP at 5 psi or higher. However, low-level blasts that produce overpressure below the 4-psi threshold can still cause serious injuries.

Primary blast injuries are caused by the overpressure wave itself. When the high-pressure wave encounters someone, it violently compresses and decompresses tissue.

- The eardrums, lungs, eyes and gastrointestinal tract are most at risk of rupture and serious damage from smaller blasts.
- The brain can be compressed by the BOP wave as it travels through the skull, potentially damaging brain cells, fracturing the skull or causing bleeding. The blast can also push the brain against the inside of the skull, causing it to rebound violently, which may result in traumatic brain injury (TBI).
- Other body tissues can be badly damaged by extremely high-pressure waves, which can result in amputations or death.

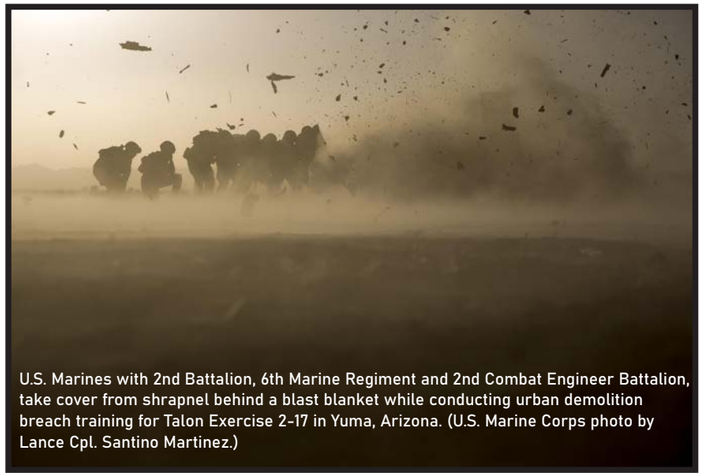
Hazardous exposure to BOP isn't just caused by explosive blasts. High-caliber firearms, shoulder-fired rocket systems, mortars and artillery pieces produce significant BOP for the service members firing the weapons. For example, the Carl Gustav shoulder-fired recoilless rifle can project a "peak" BOP (pBOP) of more than 6.5 psi on the operator. In comparison, a 1/4-kg breaching charge, which is used to explosively open doors, typically exposes a service member to less than 4 psi of overpressure.

RELATIONSHIP BETWEEN BLAST EXPOSURE AND HEALTH PROBLEMS

BOP intensity is measured in two ways. The pBOP is the maximum pressure level someone feels during the blast. "Impulse" is the length of time someone feels the blast's effects. Generally, higher explosive yields produce higher pBOP and impulse. Higher levels of either are typically more destructive to targets and people within the range of exposure. But people with the same intensity level of BOP exposure can experience different degrees of symptoms and injuries depending on environmental factors, including distance, angle and blast reflection. For instance, even if you're standing 10 feet from your buddy when you're hit by BOP, your injuries could be quite different.

U.S. Marines fire a M3E1 Multi-purpose Anti-armor Anti-personnel Weapon System during a high explosives range as part of Fuji Viper 24.3 at Combined Arms Training Center Camp Fuji, Japan, June 20, 2024. (U.S. Marine Corps photo by Cpl. Anna Geier)

The symptoms of BOP can show up immediately or gradually. In general, a single exposure to a low-level blast (LLB) with BOP of <4 psi shouldn't cause symptoms. However, mild TBI-like symptoms have been reported for single exposures to LLBs below this threshold. Repeated exposures to BOP below the 4-psi threshold, across short periods of time, have been linked to symptoms comparable to those typically seen in victims of larger blasts or in



U.S. Marines with 2nd Battalion, 6th Marine Regiment and 2nd Combat Engineer Battalion, take cover from shrapnel behind a blast blanket while conducting urban demolition breach training for Talon Exercise 2-17 in Yuma, Arizona. (U.S. Marine Corps photo by Lance Cpl. Santino Martinez.)

patients with mild TBI. Consistent exposure to LLBs over long periods has been associated with long-term cognitive decline and physical health issues in high-risk populations.

For higher BOP exposures, symptoms generally worsen with the pBOP level. For example:

- 12 psi: Neurological changes and upper respiratory injuries are possible.
- 24 psi: Mild neurological damage is possible.
- 30–40 psi: Moderate neurological and lung damage are possible.
- 40 psi: Lung damage is likely.
- Death is possible at almost any level of exposure that causes injuries. Death is unlikely at lower levels of exposure, but the risk increases as pBOP rises, especially at levels above 100 psi.

Symptoms and health problems linked to BOP exposure can be short-term or long-term. Symptoms from the same BOP can vary by person from a few hours to several weeks or longer, depending on how someone experiences the BOP and their BOP exposure history. Repeated BOP exposure can make things worse. After exposure to repeated LLBs, symptoms such as headache, nausea, concentration issues, memory problems, fatigue, sleep disruption and irritability are common. This exposure makes it especially important to report symptoms after a BOP, not only so you can get some relief, but also to track future symptoms in your medical record.

Once someone sustains a BOP injury, they're more likely to have symptoms with each additional BOP exposure. For example, if you sustain a knee injury, even if you rehab it perfectly, you're at an increased risk of re-injuring that knee. Essentially, your body is never the same as it was before the injury, making you more susceptible to future injuries. Service members who have spent significant time in high-BOP jobs have shown higher levels of brain inflammation, depression, anxiety and susceptibility to further BOP impacts.

BOP AND TBI

Cumulative BOPs can predict TBI and more severe cognitive symptoms from future blasts. A history of TBI, longer time in the service, high-exposure job fields and more time spent in high-exposure job fields have all been linked to more severe symptoms and injuries from BOP exposure. Repeated exposure to BOP also makes at-risk organs more susceptible to BOP-related injuries at lower thresholds with every subsequent blast. These symptoms and injuries from BOP exposure affect the readiness of individual service members, units and the military.

Service members regularly exposed to explosives or high BOP-producing weapons systems, such as mortar and artillery crews, heavy weapons teams, explosive breachers and explosive ordnance disposal personnel, experience BOP as a regular part of their job and are also more likely to experience TBIs.

REDUCING SYMPTOMS AND INJURIES

In August 2024, the Department of Defense (DoD) released new requirements for managing brain health risks from BOP in service members. The measures in this DoD memorandum include:

- Creating minimum standoff distances for personnel participating in training and non-participating audiences.
- Providing personal protective gear for firers, trainers and all other personnel at risk of BOP exposure during training.
- Minimizing personnel in the vicinity of BOP-producing events.
- Using simulation training instead of actual blasts whenever possible.
- Implementing cognitive baseline testing for all personnel entering the service.
- Identifying and tracking personnel at high risk of BOP exposure and recording exposure data in centralized systems.
- Implementing education and training campaigns on the hazards and symptoms of exposure and protective measures.
- Assessing legacy weapons systems currently producing BOP exceeding 4 psi, including warnings and updated user manuals.

Although current understanding of BOP effects is limited and there's no standardized military protocol yet for documenting or managing BOP exposure or reducing its effects, this step by the DoD emphasizes safety across the force and seeks to protect personnel while research on more specific solutions continues.

As with any injury, if you have symptoms, you suspect might be related to BOP exposure, seek medical care immediately. Ensure your symptoms and visit notes are added to your medical file.

BOTTOM LINE

Education can be a force multiplier in helping prevent BOP-related injuries and improve readiness. Arming service members with information about the harmful short- and long-term effects of BOP exposure can help promote safe practices and build awareness of an often-overlooked threat. If you have questions or concerns about BOP, ask your leadership.

U.S. Marine Corps Staff Sgt. Dana Beesley, center, a communication strategy and operations chief, with I Marine Expeditionary Force Information Group, I Marine Expeditionary Force, photographs a Marine with Combat Logistics Battalion 15, 1st Marine Logistics Group, I Marine Expeditionary Force, and a Singapore Guardsman from 7th Singapore Infantry Brigade, taking cover from a controlled explosion during Exercise Valiant Mark at Camp Pendleton, CA. (U.S. Marine Corps photo by Sgt. Nicolas Atehortua.)

SAFETY SPOTLIGHT

Ms. Debra L. Solley

Safety and Occupational Health Specialist

Marine Corps Air Station, Camp Pendleton, California

Since July 2022, Debra Solley has served as the Safety and Occupational Health Specialist for Marine Corps Air Station (MCAS) Camp Pendleton, California. Her expertise is instrumental in MCAS Camp Pendleton's journey towards OSHA Voluntary Protection Program recognition and achieving zero civilian injuries and zero military workplace injuries.

Due to her passion and dedication, Ms. Solley conducted OSHA Outreach training courses, equipping over 115 personnel with essential knowledge to identify and prevent workplace hazards.

With a discerning eye, she meticulously inspected over 85 facilities. Her thorough evaluations identified potential risks, ensuring compliance with Federal and Marine Corps safety protocols. Her diligent tracking of corrective actions ensured that hazards were promptly abated, contributing to a safer environment for everyone.

Ms. Solley's legacy extends beyond mere statistics. Her organizational and community relation skills led to two successful Safety Fairs featuring over 40 vendors which educated attendees and promoted proactive safety practices.

NORMALIZATION OF DEVIATION

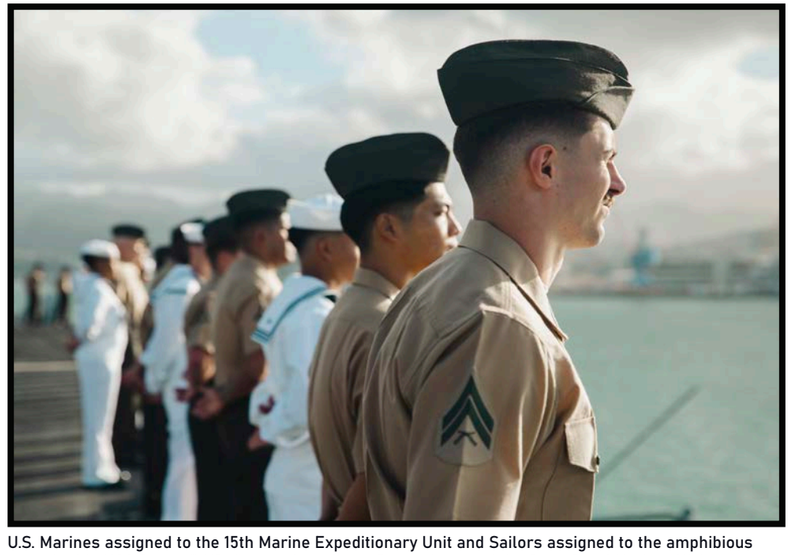
THE CREEPING DANGER OF INCREMENTALISM

By Capt Baylen Smith, Commandant of the Marine Corps Safety Divison

Marines and Sailors have faced the same timeless dilemma at some point in their career: Should I do what the policy says to do, or should I do what is easy and sufficient to get the job done?

A deadline or training event is looming overhead, and we must debate how to proceed. Whether it's performing a last-minute selective parts interchange on a critical vehicle without informing the commanding officer or skipping seemingly unnecessary steps during a maintenance procedure, we're deviating from established policy. Over time and without course corrections, these small infractions can become commonplace and become the "standard" itself. Left untended long enough, the correct procedure or method of doing business is lost entirely, and the potential for a mishap or injury increases dramatically. It changes from a question of "if" a mishap will occur to a question of "when" a mishap will occur. These incremental infractions over time are known as 'normalization of deviance.'

'Normalization of deviance' is a gradual process by which individuals, groups, or organizations incrementally come to accept a lower standard of performance until that lower standard becomes the "norm" or new standard itself. Coined by Diane Vaughan in her 1996 book The Challenger Launch Decision: Risky Technology, Culture, and Deviance at National Aeronautics and Space Administration (NASA), she derived the notion of 'normalization of deviance' from analyzing the 1986 Challenger mishap. Vaughan argues that incremental normalizations of deviance from standards, policy, and procedures without immediate negative consequences across the Challenger program were causal to the eventual mishap, killing seven astronauts and incurring millions in financial losses.



U.S. Marines assigned to the 15th Marine Expeditionary Unit and Sailors assigned to the amphibious assault ship USS Boxer (LHD 4) man the rails as Boxer departs Joint Base Pearl Harbor-Hickam, Hawaii, Nov. 15, 2024. Elements of the 15th MEU are currently embarked aboard Boxer and are conducting routine operations in U.S. 3rd Fleet. (U.S. Marine Corps photo by Cpl. Luis Agostini.)

Preconditions of Deviance

The big question is: How do you spot it? Unsurprisingly, high-stress and high-pressure working environments are ripe for Marines and Sailors to become predisposed to cutting corners. Some common preconditions of deviance or dynamics that set the stage to normalize deviance include:

- Individuals or groups under pressure to meet job requirements or tasking
- High operational tempo for unit or command
- Compressed or shifting timelines or deadlines for projects or tasks
- Need to conform to budgetary constraints or scarcity of funds
- Desire to deliver on individual or group promises to leaders or commanders
- Competitive environments
- Need or desire to just "get the job done"
- Rules and standards seen as stupid, inefficient or irrational
- Knowledge or awareness of rules and standards not uniformly distributed across all echelons of command
- Perception that more desirable outcomes can be achieved by intentionally breaking rules

The Dangers and Symptoms

We could easily argue that Marines and Sailors would never allow the standard to drop. The reality is that Marines and Sailors already normalize deviations from existing policies and standards at every echelon throughout the Naval Service, whether they realize it or not. Normalization of deviance is a "creeping" hazard that develops and builds over long periods of time. In most cases, the danger or consequences may not be felt until weeks, months, or even years down the road.

The following dangers and symptoms can manifest within organizations that fail to course-correct when small deviations present themselves:

1. **Desensitization to Deviant Procedures – Building Poor Practices/Habits:** The more the organization allows the deviance to occur, the more commonplace the deviance becomes. As the practice continues, Marines and Sailors no longer see the deviance as wrong – the nagging voice in the back of their heads no longer speaks up.

2. **Lack of Repercussions – Reinforcing Unsafe Practices/ Habits:** When a deviance in procedure occurs and there are no repercussions, the deviant behavior is reinforced by the lack of consequences. For example, if a Marine decides to skip steps in maintenance procedures on multiple occasions and the maintenance is completed without incident, their deviance from procedure is reinforced by the lack of negative consequences. That Marine is far more likely to continue the deviance in procedure and explore other avenues to cut corners to "get the job done."

3. **Bystander Effect – Failure to Speak Up:** When the organization is already cutting corners across several programs or functional areas, this can create bystander apathy. Hazards are observed but discounted because peers are allowing the same practices to occur. It's viewed as business as usual. This often manifests as "this is how it's done in the fleet." A new join may notice something is being done differently than at the schoolhouse but assumes that the operational unit has good reasons for doing things differently.

4. **Complacency:** Complacency in accepting risk or underestimating risk exposure due to past performance begets more complacency. As complacency compounds, members of the organization become passive observers rather than active stakeholders.

5. **Groupthink:** A phenomenon where well-intentioned people make irrational or non-optimal decisions due to pressure to conform or the belief that dissent is impossible. Groupthink has several symptoms, including:

   - **Illusion of Invulnerability:** Groups believe they are less likely to suffer misfortune and more likely to succeed than reality suggests, often reinforced by past performance.

     Example: A Marine raises a concern about risky range geometries, but leadership discounts it because adjacent companies had no incidents with the same geometries.

   - **Collective Rationalizations:** The group develops rationalizations to downplay hazards or concerns contrary to the group's thinking or goal. Example: Unit leaders rationalize concerns about unit fatigue during a large-scale exercise.

   - **Self-Censorship:** Members censor themselves out of fear or pressure from the group.

     Example: Unit leaders rationalize concerns about unit fatigue during a large-scale exercise.

   - **Illusion of Unanimity:** Group Members falsely perceive that everyone agrees with the decision.

     Example: Leadership believes everyone is on board with a decision based on a lack of feedback during a meeting.

   - **Direct Pressure on Dissenters:** The group applies

A U.S. Marine assigned to Marine Medium Tiltrotor Squadron (VMM) 165 (Reinforced), 15th Marine Expeditionary Unit, performs the squadron's "Gunfighter Salute" while taking off in a UH-1Y Venom from the amphibious assault ship USS Boxer (LHD 4) in the Pacific Ocean, Nov. 22, 2024. (U.S. Marine Corps photo by Sgt. Amelia Kang.)

pressure to those who question decisions.

Example: A lieutenant is pulled aside for questioning the risk decisions made by the commander.

- **Self-Appointed Mind Guards:** Some group members discourage or filter alternative ideas from being expressed.

Example: The operations officer schedules a meeting without the logistics or safety officer to avoid hearing concerns.

Prevention Strategies / Techniques

Leaders at all levels must identify deviations within their commands before they become larger systemic issues that degrade morale and readiness. The following recommendations can help your organization avoid the pitfalls of normalization of deviance:

1. Never use past success in hazardous or risky environments to define acceptable performance or safety measures for future training or programs. Utilize the risk management process in MCO 5100.29C – Volume 2 and consider risk options after in-depth analysis and objective assessment.

2. Require systems, processes, or procedures to be proven safe and effective before implementation. Never implement equipment, processes, or procedures without detailed Job Hazard Assessments (JHAs), risk analysis, and informed risk decisions.

3. Recognize and prevent groupthink. Encourage opposing viewpoints in discussions. Avoid surrounding yourself with "Yes Men" who agree to everything.

4. Keep safety programs independent from the activities they evaluate. Per MCO 5100.29C, every 05/06 command shall appoint a full-time safety officer with direct access to the commander. Safety officers should report only to the commander or executive officer.

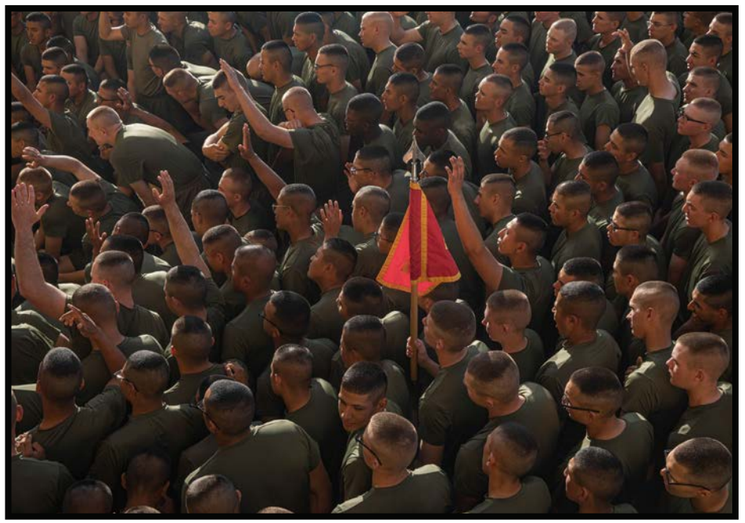
5. Balance unit schedules, Training, Exercise, and Employment Plans (TEEPs), project milestones and operational tempos against available resources and unit fatigue based on impartial risk assessments.

6. Seek safe and balanced training or operational designs in the face of opposing interests. Use objective assessments with appropriate measures of performance and effectiveness to optimize designs safely.

7. Establish a learning culture where concerns are voiced openly without fear of reprisal. Every concern raised is an opportunity for growth that should not be downplayed.

8. Prevention is far simpler than addressing cultural shifts caused by normalization of deviance over time. Maintaining an established standard is easier than breaking a culture of deviance.

9. Provide clear, realistic guidance to subordinates. Ensure they understand when tasks cannot be completed under current conditions. Often, deviations occur because subordinates believe they must accomplish a task when leadership doesn't expect it.



New U.S. Marines with Golf Company, 2nd Recruit Training Battalion, gather for instruction prior to the company motivational run at Marine Corps Recruit Depot San Diego, California, Nov. 25, 2024. (U.S. Marine Corps photo by Cpl. Alexandra M. Earl)

CHAMP MISSION

The Consortium for Health and Military Performance (CHAMP) mission is to enhance Warfighter readiness through evidence-based human performance optimization knowledge, guidance, and operational support.

CHAMP RESEARCH

CHAMP is DoD's primary asset in translational research through collaborative relationships with USU, other DoD agencies, academia, and industry that share common goals of addressing optimal human performance.

CHAMP's efforts include basic, clinical, translational, and community-based participatory research to support specific human performance interest areas.

VISIT OUR WEBSITE FOR MORE INFO

CHAMP.USUHS.EDU

RESEARCH AREAS

Nutrition, Dietary Supplements, Brain Health:
Increase nutritional awareness of Service Members (SM) to sustain and improve overall performance

Musculoskeletal Injury Prevention:
Help SM prevent and recover from musculoskeletal injury

Community-Based Efforts:
Increase awareness of community and military resources for optimized tasks and performance

Exertion-Related Events and Sickle Cell Trait:
Reduce heat-related injuries, improve return to duty timelines following injury among SM by improving injury awareness and treatment protocols

Integrative Health and Technology:
Use SM data to enhance their health and performance

Psycho-Social-Spiritual Fitness:
Assist military communities in using concept of spiritual readiness for optimized performance

champ@usuhs.edu

CASE STUDY

MISHAP PREVENTION

FALL PROTECTION: ENABLING EXPEDIENT COMMUNICATIONS IN URBAN TERRAIN (SAFELY)

Article by Allen Dowler, Safety and Occupational Health (SOH) Specialist, Department of Safety at Camp Lejeune, North Carolina.

Given the speed and accessibility of information, communication has never been more important within the Marine Corps. Every Marine leader will tell you, "I must be able to communicate with the units in the field."

For training, accountability or safety purposes, there is a definite need to communicate with portions of your unit while they are in the field. However, that need does not justify haphazard and unsafe practices on government buildings to facilitate that communication. A young, hard-charging Marine will always say, "Gunny, we can put the communication antennas on the roof of the command post." There are two problems with putting your antennas on the roof. First, antenna installation on buildings has risks associated with it, electrocution and fall potential being the foremost. Secondly, it may violate a standing order that antennas will not be placed on the roof of buildings except by authorized personnel.

This all-too-common example was found by Installation Safety during a routine facilities inspection aboard Camp Lejeune, North Carolina. During the inspection, the inspector of the unit headquarters identified two antennas on the roof of the command post and two antennas on the ground. One of the coaxial cables of a ground-mounted antenna was routed over the edge of the rooftop into the main entry to the command post.

Just below the roof's leading edge, there were multiple potential impalement objects that would increase the severity of a fall. Don't forget the exposure hazard of Radio Frequency (RF) radiation when considering the placement of your communication antennas. When in doubt, seek advice from your command's Radio Frequency Safety Officer (RFSO) or the Installation RFSO.

When there's a requirement for Line-of-Sight (LOS) communication, such as Ultra High Frequency (UHF) waveforms and to a lesser extent Very High Frequency (VHF) waveforms, the use of a tower or pole will meet your needs. To eliminate a fall potential from climbing a tower or pole, employ a tilt-capable tower for safe installation and maintenance of equipment while your feet stay firmly planted on the ground.

Always maintain situational awareness for overhead power lines or service drops to the building during the planning and placement of communication towers you may employ. All towers and antennas should be at least ten feet away from overhead power lines or service drops to buildings.

When properly approved and trained personnel access roofs, they adhere to all standards of 29 Code of Federal Regulations (CFR) 1910 subpart D – Walking-Working Surfaces. This access may be achieved either through roof hatches or ladders provided the work section has: 1) A written Fall Protection Plan; 2) A Personal Fall Arrest System and equipment; and 3) Qualified and certified end users.

The use of scissor lifts or bucket trucks will not work to gain roof access because personnel MUST NOT leave the work platform or bucket at any time except to mount and dismount.

Any work conditions that expose active duty and Department of Defense civilian personnel to fall hazards of four feet or greater shall be assessed by a competent, fall protection-certified individual to implement and oversee that the proper hazard controls are in place, per the Department of the Navy (DON) Fall Protection Guide. Additionally, the minimum height requiring anchorage use is 11 feet. The anchorage must be designed to withstand 5,000 pounds per person. Items not designed for fall protection should not be used. For example, a cargo strap wrapped around a roof ventilation duct WILL NOT meet the requirement or prevent personnel from being injured should they fall.

A good rule of thumb for assessing whether you need a codified Fall Protection Program: If you have both the equipment and the need for its use, then you are required to have a written Fall Protection Program. The DON Fall Protection Guide has further information on the subject in section 3.0 for Fall Protection Program guidance and section 6.0 for training requirements. Verify with your local Installation Safety Fall Protection Manager and applicable command orders if you are required to have your fall plans approved by the Installation Safety Department prior to gaining roof access to installation buildings.

Many commands could misinterpret the military-specific exemption to the OSHA 29 CFR 1910 or 29 CFR 1926 when looking at many of the types of work being performed. If clarification is needed, contact your Installation Safety Department.

MCSMS

The Marine Corps Safety Management System (MCSMS) is a framework of policies, procedures and processes for managing safety and occupational health (SOH) risks across all functions and mission sets of the Marine Corps.

The MCSMS is a systemic approach to risk management in planning and executing operations that enhance unit effectiveness through the preservation of manpower and resources.

How does the MCSMS work?

The MCSMS functions throughout the service via four means:

1. Policy and Leadership
2. Risk Management (RM)
3. Safety Assurance
4. Safety Promotion and Training

EVERY FIVE YEARS, WE LOSE MORE THAN A PLATOON'S WORTH OF MARINES AND SAILORS ... ALL DUE TO PREVENTABLE MISHAPS.

Policy and Leadership
- Policy provides commands the requirements, roles and responsibilities in executing all functional areas of safety
- Policy also sets the expectations, objectives and guidance for participation, risk tolerance and safety processes for personnel within the command.
- Commanders have overall responsibility for safe operations of the organization and must clearly establish a positive safety culture and accountability within the command.
- It is crucial for commanders to communicate their commitment to the safety and health of our Marines, Sailors and civilians.

Risk Management
- With hazards and risks present on and off duty, leaders and personnel must understand how to assess and manage risk to achieve mission success and preserve combat readiness.
- Risk cannot be completely eliminated in all missions and activities of the Marine Corps, but deliberate incorporation of RM can minimize it as much as possible.
- The RM process:
  - Identify the Hazards
  -. Assess the Hazards
  -. Make Risk Decisions
  -. Implement Controls
  -. Supervise

Safety Assurance
- Safety assurance includes evaluating, reviewing, monitoring and process improvement that assures commander safety elements are being practiced and improved upon.
- Identifies:
  - SMS deficiencies and opportunities
  - New hazards
  - Effectiveness of risk controls
  - Regulatory requirement compliance
- Components:
  - Inspections
  - SMS self-assessments
  - Monitoring (review metrics available)
  - Safety Climate Assessment Surveys
  - Command Culture Workshops

Safety Promotion and Training
- Safety promotion increases awareness of MCSMS objectives and benefits to personnel within the command.
- Ensures commands communicate lessons learned, evaluation results, mishap data, preventive and corrective actions, safety education, and risk management training.
- Formal and informal training on SOH and military-unique activities and topics are necessary to ensure a fully functional SMS.
- All personnel throughout the command should know and understand all MCSMS requirements that apply to their individual duties and responsibilities.

Why is it Important?
- Every five years, we lose more than a platoon's worth of Marines and Sailors and about $3.5 billion in equipment - all due to preventable mishaps.
- Safety enables, not hinders, warfighting, lethality, mission accomplishment and combat success by placing value in the preservation of our personnel and resources.
- By prioritizing safety and adhering to those policies and procedures written in blood, we honor the sacrifices of those who have lost their lives and suffered injuries in service to our nation.

M320 GRENADE LAUNCHER MISHAPS

Article courtesy of Naval Safety Command

The M320 Grenade Launcher Module (GLM) is a recent addition to the Marine Corps' arsenal. Some Marine Corps units received the weapon system as early as 2017, but large-scale rollout did not start until about 2020. With the increased use of this system, the fleet is learning valuable lessons for its employment, but some of these lessons were learned painfully. Several Marines have taken chunks of their fingers off with poor hand placement. If your unit is using this system, take a moment to learn one of the things not to do to keep all of your digits.

A WELL-INTENTIONED MODIFICATION

Early in the system's rollout, a battalion received several M320s from an adjacent battalion. During the transfer, the armorers identified that some of the weapons' Folding Vertical Grips (FVGs) (refer to diagram item #7) were reversed (in the standard position the grip folds backward toward the butt of the weapon, reversed it folds forward). Battalion leadership decided they preferred the modification because, in the reversed setup, the shooter's hand is further from the muzzle when the grip is extended to its vertical position. The unit applied the modification to each of their new weapons and scheduled their first range.

A U.S. Marine fires an M320 grenade launcher as part of a live-fire range during Fuji Viper 24.4 at Combined Arms Training Center Camp Fuji, Japan, Oct. 15, 2024. U.S. Marine Corps photo by Lance Cpl. Kendrick Jackson

Before heading to the range, the unit conducted a safety test of the grenadiers to ensure their understanding of the FVG's handling procedures, zeroing, etc; all grenadiers were deemed qualified. On the day of the range, the battalion conducted a dry run, and everything was looking good. The battalion commander, sergeant major and battalion gunner attended the live fire run to observe (the bad stuff always happens in front of the boss). When the live run began, an unfortunate grenadier entered the trench system and prepared to engage targets. He extended the M320 butt stock, raised the leaf sights, loaded a round and assumed a modified standing position. One thing he neglected to do, though, was extend the FVG. He grasped the weapon palm up, not realizing part of his forefinger was raised in front of the muzzle. When he fired the round, the projectile took a portion of his finger with it.

After analyzing the mishap, the unit determined that reversing the hand grip places the shooter's hand further back when the grip is extended (seems better, right?); but it does the opposite if the shooter fails to extend the grip (definitely worse). As such, they reversed their decision and mounted the FVGs following the manual. The board investigating this mishap recommended the technical manual clarify that no modifications should be made to the FVG and that emphasis should be placed on the FVG being extended whenever firing. We agree with the board. Manuals are usually written that way for a reason. It's generally wise to follow what they say.

ALMOST STOPPED IN TIME

In another incident, a Marine reached the advance limit in his unit's platoon attack. A counterattack was simulated and the grenadiers were expected to use their M320s to repel it. The range safety officer noticed one of the grenadiers neglect to put his FVG down (hmm sound familiar) and place his palm right under the muzzle as he grasped the grenade launcher preparing to fire. He yelled for the position safety officer nearest the Marine to stop him, but right then the Marine fired. The grenadier was lucky in that he only lacerated his finger.

While it is a safety officer's job to monitor everything in their designated lane, capturing every single hand placement is impossible. The gunners must ensure they have their weapons handling techniques down pat before going live.

MORE POOR HAND PLACEMENT

The report for this incident was relatively short and was a simple paragraph. The report noted the "mishap occurred when the grenadier did not deploy his broomstick (aka FVG)" (and so the trend continues). The Marine placed his hand on the front of the weapon, thinking he was "holding the broomstick." He fired the round, which impacted his hand so severely that he required pins to hold his finger and hand bones together.

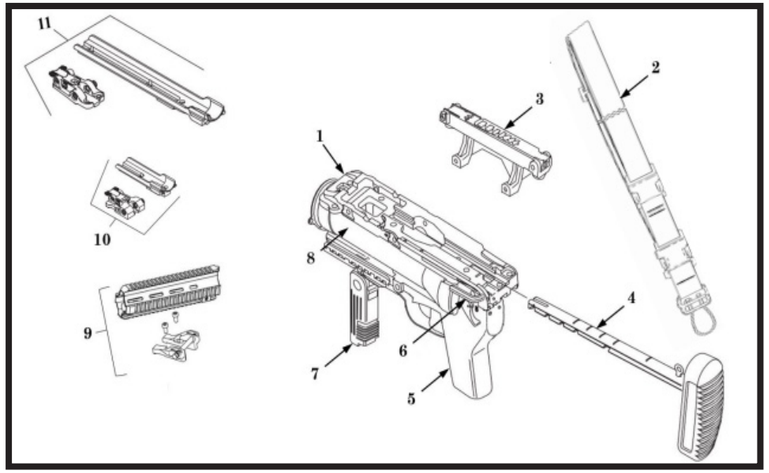
Firing a high-speed projectile is no time to be absentminded about your hand placement.

KEY TAKEAWAYS

While each incident has nuanced differences, the bottom line is that each Marine in these mishaps lost awareness of their weapons handling. Weapons handling should be muscle memory, whatever weapons system you are using. Keep in mind this guidance when developing this muscle memory for the M320.

1. **The FVG must be extended when firing. In each case, the grenadier neglected to extend the folding vertical grip. The M320's short barrel increases the chance of the shooter's finger ending up in front of it. Ensuring the grip is down and gripping it properly will help ensure your hand is far enough away from the muzzle.**

1. **Maintain muzzle awareness. We constantly reiterate muzzle awareness to ensure we don't flag somebody with our weapon, but we also need to ensure we aren't flagging ourselves. Make sure you pay attention to your hand placement. It can be easy to fixate on other aspects of a live-fire range but don't let that cause you to neglect your basic weapons handling. It will save you from a painful and potentially fingerless day (and many days thereafter...).**



M320A1 Diagram

A U.S. Marine simulates engaging an enemy with an M320 grenade launcher during a range rehearsal at Camp Schwab, Okinawa, Japan, Oct. 1, 2024. (U.S. Marine Corps photo by Cpl. Michael Taggart)

SAFETY SPOTLIGHT

Lieutenant Colonel Glen J. Reukema (Ret.)

Aviation Section Head

CMC (SD), Arlington, Virginia

A CH-53E aviator by trade, Lieutenant Colonel Glen Reukema served as Aviation Section Head at Commandant of the Marine Corps (CMC) Safety Division from 2020 to September 2024. Charismatic, loud, and overly enthusiastic, Lieutenant Colonel Reukema performed his duties with exceptional ability, merging years of aviation safety experience, superior understanding of safety programs, and an unrelenting drive to improve Marine Corps aviation.

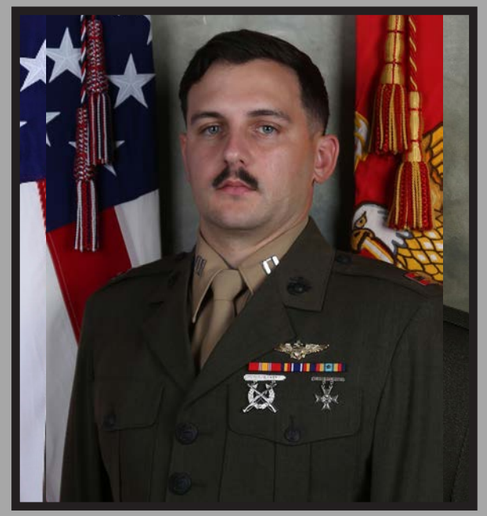
He displayed extraordinary aviation safety expertise, analytical skill, and leadership acumen in developing and improving operational safety and training programs that enhanced readiness for Marine Corps Aviation units.

His comprehensive analysis and technical competence, coupled with his unique ability to establish effective interpersonal relationships, were instrumental in gleaning lessons learned from aviation mishaps, providing recommendations, and assisting senior leadership in decision making regarding Marine Corps aviation safety.

As a stalwart proponent of safety and engaged leadership, his contributions to various safety forums enhanced the experience of all those he contacted. Lieutenant Colonel Reukema's superior performance of duties culminated his 24 years of honorable and dedicated military service. Fair Winds and Following Seas, Marine!

Senior Enlisted (Gunnery Sgt. and Above): Master Sgt. Orlando L. Villalobos

While serving as collateral Ground Safety Officer, Support Battalion (II MSB), II Marine Expeditionary Force (MEF) from September 2021 to September 2023, Master Sergeant Villalobos provided exceptional oversight and execution of a comprehensive Safety Management System (SMS) for the Support Battalion, adjacent headquarters elements, and II MEF headquarters. On top of his demanding duties as II MSB Logistics Chief, he successfully executed numerous safety-related evolutions and inspections, consistently earning noteworthy performance by inspectors. His efforts and initiatives in fostering a safety-oriented culture directly produced a 60 percent reduction in safety mishaps and near-miss events and the input of over (240) facility work orders. His diligence and tenacity were evident in the safe and successful execution of multiple Support Battalion and MEF-level exercises. Coordinating multiple lines of effort, both in garrison and in a field environment, he single-handedly provided and supervised multiple periods of safety instruction to promote mishap reduction and procedural compliance. Master Sgt. Villalobos' unwavering determination, wise judgement, and dedication to duty reflected credit upon him and were in keeping with the highest traditions of the Marine Corps and the United States Naval Service.



Officer: Captain Gregory Fountain

While serving as Officer-in-Charge of the Department of Safety and Standardization (DOSS) as part of the Amphibious Combat Vehicle (ACV) Transition Training Unit (TTU), Captain Gregory Fountain's unparalleled professionalism, acumen, and expertise in aviation safety were essential to the establishment and success of the ACV TTU. His efforts directly enabled Assault Amphibian School (AAS) to develop and implement safety measures and controls to ensure the safe execution of five Operator Certification (OPCERT) courses for more than 150 Marines. While developing and fostering an innovative safety program at the AAS, zero mishaps occurred throughout the development and execution of the ACV curriculum. He established multiple safety processes and procedures in place to facilitate success, to include Range Safety Officer checklists and surf zone contingency cards. When he was not supporting a training course, Captain Fountain provided training on unique safety programs and tools, such as the Joint Risk Assessment Tool (JRAT) and Marine Sierra Hotel Aviation Reporting Program (M-SHARP), to senior leaders across the AAS and Training Command, empowering key leaders to foster a positive safety culture at their respective echelons. Through his technical expertise as an Aviation Safety Officer, he personally contributed to the design and completion of the Assault Amphibian Training and Operating Procedures Standardization (AATOPS) manual to serve as baseline for all ACV operations across the service. His efforts in the development of the AATOPS will have lasting effects in implementing safety and standardization across the entire Assault Amphibian community. Captain Fountain's impressive attention to detail, meticulous training supervision, and superior regard for safety has reflected great credit upon him and has upheld the highest tradition of the Marine Corps and United States Naval Service.

WARRIOR PRESERVATION AWARD

For the best maintained and most comprehensive installation safety management system

Marine Corps Air Station (MCAS) Miramar San Diego, California

MARINE CORPS SAFETY AWARD

For the best maintained and most outstanding command safety management system

Group I (population over 10,000): **Marine Corps Base Camp Pendleton, Oceanside, California**
Group II (population 5,000 to 9,999): **Marine Corps Air Station, Beaufort, South Carolina**
Group III (population 4,999 to 1,000): **Marine Corps Air Station Camp Pendelton, Oceanside, California**
Group IV (Population below 1,000): **Marine Corps Logistics Base, Albany, Georgia**

FY23 MARINE CORPS SAFETY EXCELLENCE AWARD

This award is presented each fiscal year to one officer, one junior enlisted, one senior enlisted and one government civilian employee who made the most significant contribution to the Marine Corps Safety Management System.

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

Junior Enlisted (E-6 and Below): Staff Sgt. Michael Price

While serving as Assistant Director and Course Lead of the Department of Safety and Standardization as part of the Amphibious Combat Vehicle (ACV) Transition Training Unit (TTU), Staff Sergeant Michael Price's technical expertise, initiative, and professionalism were essential for the establishment and success of the ACV TTU. He was instrumental in the development, implementation, and oversight of all safety measures and controls to ensure the safe execution of the ACV curriculum for over 150 Marines at the Amphibious Assault School (AAS). After analyzing every Amphibious Assault Vehicle (AAV) and ACV mishap since the 1980s, Staff Sergeant Price developed and implemented a mishap review curriculum to emphasize standardization and adherence to procedures within the Amphibious Assault community. Additionally, he personally developed (11) new Performance Evaluation Checklists (PECLs) for ACV crewman to standardize crewman performance standards within the community. While in support of AAS operations, he developed (58) deliberate risk assessment worksheets utilizing the Joint Risk Assessment Tool (JRAT), the first of their kind that enabled the safe execution of all high-risk operator certification evolutions. Through his efforts and guidance on procedural compliance and standardization, zero mishaps occurred since the inception of the ACV TTU. With his deep community knowledge, attention to detail, and passion for safety, Staff Sergeant Price reflected great credit upon him and upheld the highest traditions of the Marine Crops and United States Naval Service.

Civilian: Mr. Phillip Taney

Serving as the Installation Facilities Maintenance Supervisor aboard Marine Corps Logistics Base (MCLB) Barstow since August 2018, Mr. Taney has championed a comprehensible safety program within his work force, supervising numerous, inherently dangerous, and specialized maintenance processes. Using his expansive and expert knowledge of specialized trades, Mr. Taney ensures that all compliance standards and safety measures are strictly enforced by his personnel throughout MCLB Barstow. Mr. Taney supervises 28 employees that enable a variety of MCLB Barstow facility functions in a safe and efficient manner. He oversees the training and compliance of these specialized trade employees, consisting of maintenance technicians, electricians, heating and air conditioning technicians, pest controllers, locksmiths, and mobile heavy equipment operators that account for over 2,000 maintenance work orders and small construction projects annually in over 500 facilities throughout MCLB Barstow. He has ensured his employees are current on all standards across multiple safety program areas, to include ergonomics, supervisor training, risk management, hearing conservation and other programs.

Mr. Taney's knowledge and leadership was instrumental in development of a comprehensive safety program and safe processes, developing several installation standard operating procedures (SOPs) and hazard reduction methods across variety of industrial work zones with their own unique, increased risk factors. Mr. Taney has expertly managed all of these, setting an example and standard of performance for many to follow as demonstrated by an 80 percent reduction of mishaps within his organization. In comparison to the most recent Bureau of Labor statistical rates for FY23, MCLB Barstow's Total Case Incident Rate (TCIR) was 59 percent below the national average of 5.6, and Days Away, Restricted, Transferred (DART) rate was 57 percent below the national average of 4.7. Mr. Taney's tireless efforts have resulted in the DoD Safety Management Center of Excellence estimating MCLB Barstow's mishap reduction cost avoidance to be over 1,593,000 dollars in FY23.

NAVY LEAGUE OF
THE UNITED STATES

CITIZENS IN SUPPORT OF SEA SERVICES

ADMIRAL VERN CLARK SAFETY AWARDS

The Admiral Vern Clark Safety Award is intended to stimulate safety within the U.S. Navy through ideas, suggestions and programs that will reduce mishaps, injuries and fatalities within the Department of the Navy by providing special recognition to those who best exemplify and advance a culture of safety.

For outstanding work to advance safety in the United Sates Navy, the 2024 Admiral Vern Clark Safety Award is presented to:

U.S. Navy (Command)
Rota, Spain

Naval Station Rota, Spain enables warfighters on the water, in the air, and on land; sustains the fleet in preparation for the execution of operations in the European and African Area of Responsibility; and supports our families through peerless service, support, and responsiveness.

Fiscal Year 2023 highlighted successes for Naval Station Rota across several mission domains. Strident application of Operational Risk Management principles ensures safe Air Operations in the execution of 23,237 flights, transporting 15,400 passengers and over 6.5 million pounds of cargo in support of three Carrier Strike Groups, 25 aviation detachments and the United States Marine Corps 24th Marine Expeditionary Unit. Commensurately, fleet support was assured by Port Operations in the mishap-free movement of four homeported DDGs, 72 transiting U.S. and NATO vessels, and 235 affiliated ships. Meticulous explosive safety management was also integral during 118 ammunition evolutions, resulting in the movement of 280,000 pounds Net Explosive Weight to support the air, ground, and shipborne mission requirements. This significant level of operational logistics support is a key enabler to combat execution when accomplished the Naval Station Rota way - safely.

The robust safety program of Naval Station Rota that encompasses aggressive command oversight, application of lesson learned, and innovative safety promotions has generated a strong safety culture that facilitated the team 's success. Further, Naval Station Rota personnel embraced the Commanding Officer's three stated Safety Goals to ensure accountability, and promotion of Safety as a Core Value.

Naval Station Rota's impressive safety program has yielded unparalleled results across the full spectrum of safety metrics. This comprehensive program management coupled with an educated and informed workforce has been instrumental in attaining an impressive safety record of eliminating preventable mishaps while enhancing the readiness of the naval forces.

U.S. Navy (Individual)
Lt. Erica Blanchard

Lieutenant Erica Blanchard is a consummate professional whose leadership, perseverance and unwavering commitment to safety significantly contributed to improved operational readiness at the Pacific Missile Range Facility - Barking Sands and associated Mobile At-Sea Sensor System by re-establishing a safety program.

Lt. Blanchard is an exemplary naval officer and leader who as the Mobile At-Sea Sensor System Officer in Charge recognized that there was a lack of a safety program and took the initiative to create one from ground zero. This was a daunting task as it required comprehensive understanding of both afloat and ashore safety protocols due to the unique nature and broad mission set of her command. In establishing the safety program, she meticulously documented, implemented and ensured compliance with critical sub-programs to include training a wide range of topics spanning, hazardous materials, fall protection, weight handling, respiratory protection and reporting requirements. To ensure the safety of her crew from undetected hazards, she coordinated for an industrial hygiene survey and established regular training and safety inspections across the entire vessel. Lieutenant Blanchard's dedication to safety and establishment of a comprehensive program was instrumental in creating a culture of safety that actively promoted reporting of unsafe conditions by all personnel. Further, she set the standard through her safety briefings to alt ship riders of her expectations and clear commitment to their safety and well-being.

Lieutenant Blanchard's determination, resourcefulness and infectious approach to safety are hallmark traits that measurably improved the Mobile At-Sea Sensor System effectiveness through integration of safety and risk management principles. Lieutenant Blanchard is integral to fostering the importance of safety, and her devotion to duty is in keeping with the highest traditions of the United States Navy and the United States sea services.

GENERAL JAMES L. JONES SAFETY AWARDS

The General James L. Jones Safety Award is intended to stimulate safety within the U.S. Marine Corps through ideas, suggestions and programs that will reduce mishaps, injuries and fatalities within the Department of the Navy by providing special recognition to those who best exemplify and advance a culture of safety.

For outstanding work to advance safety in the United Sates Navy, the General James L. Jones Safety Award is presented to:

U.S. Marine Corps (Command)
Marine Corps Logistics Base Barstow

The Marine Corps Logistics Base (MCLB) Barstow serves as a primary platform for training and installation support providing real estate, infrastructure, and services to the operating forces via direct transportation, supply and storage to tenant organizations, Fleet Marine Forces, the Department of Defense, and other federal entities.

In 2023, MCLB Barstow sustained its successful safety and health program as evidenced by continued reduction in workplace injury and illness rates. Attainment of these mishap reduction results, and associated cost avoidance is a testament to leadership involvement, stated safety goals, and an all-installation effort toward achieving improved occupational safety and health. With the Voluntary Protection Program (VPP) as the foundation there is ample evidence of a solid program, but MCLB Barstow continues to set the standard across not only for the Department of the Navy but for the Department of Defense. A testimony to their success and programmatic implementation is clear based on zero military on-duty or off-duty class "A" or "B" mishaps, and zero civilian class "A" or "B" mishaps in FY23. Further recognition of the robust safety program was noted in a Commanding General's Inspection Program report where the Safety Office received two distinct accolades. One for the noted professionalism and knowledge of the Functional Area Manager and the second was the overwhelming success of integrating the OSHA 10 Hour training requirement for newly reported employees. These initiatives are emblematic of a program that fosters success by ensuring a total team approach to safety.

Marine Corps Logistics Base Barstow continues to cultivate a safety culture that directly supports the Department of Defense and Marine Corps mishap reduction and prevention efforts while enhancing the readiness of the naval forces.

U.S. Marine Corps (Individual)
Staff Sgt. Marcos Ascencio, Jr

Staff Sgt. Marcos Ascencio, Jr. is a skilled and dedicated professional whose hard work, innovation and unwavering commitment to safety significantly contributed to improved operational readiness based on his leadership and proactive approach in managing a complex and highly disaggregated command.

As the Marine Air Group 41 (MAG-41) Safety Officer, Staff Sergeant Ascencio assumed responsibilities beyond his designated rate by managing the largest Air Group in the Marine Corps Reserves comprised of 3,600 pilots, aircrew, and support personnel across nine disparate units dispersed throughout the country. His organizational skills and meticulous management style has positively contributed to ensuring full compliance with all Navy, Marine Corps, and Occupational Safety and Health Administration requirements. In support of this effort, Staff Sergeant Ascencio travels to all units to physically walk the spaces, speak with command personnel, and capture potential hazards to ensure a mitigation strategy is expeditiously developed. Further, he has effectively trained and mentored the Active Duty and Reserve Ground Safety Officers and Managers which has been integral to ensuring all are proficient in the most updated safety practices, policies, and procedures. His laser focus and consistent engagement is instrumental in ensuring all motor vehicle operators complete requisite driver, motorcycle, and tactical vehicle courses required to operate safely in any environment or physical location.

Staff Sergeant Ascencio 's attitude, resourcefulness and boundless enthusiasm are hallmark traits of his work ethic that measurably improved the effectiveness of MAG-41. He has proven to be an indispensable member of the Marine Corps' Safety Community, and his devotion to duty is in keeping with the highest traditions of the United States Marine Corps and the United States sea services.

Ground Truth

BREAKDOWNS IN MISHAP REPORTING

Article courtesy of Commandant of the Marine Corps – Safety Division

When a mishap occurs within your command, who are you going to call? I'll give you a hint: it's not Ghostbusters.

If the mishap occurs during normal business hours, you'll use your chain of command to report the mishap. Outside of business hours, mishap notifications are directed to the Marine with no friends: the Duty Officer. However, leaders rarely think to include their command's Ground Safety Officer (GSO) or Ground Safety Manager (GSM) when a mishap occurs.

Why is that the case? A variety of facotrs come into play, but the main reasons for breakdowns in mishap reporting include a knowledge gap in safety reporting requirements, a lack of reporting culture, fear of negative attention and cultural stigmas.

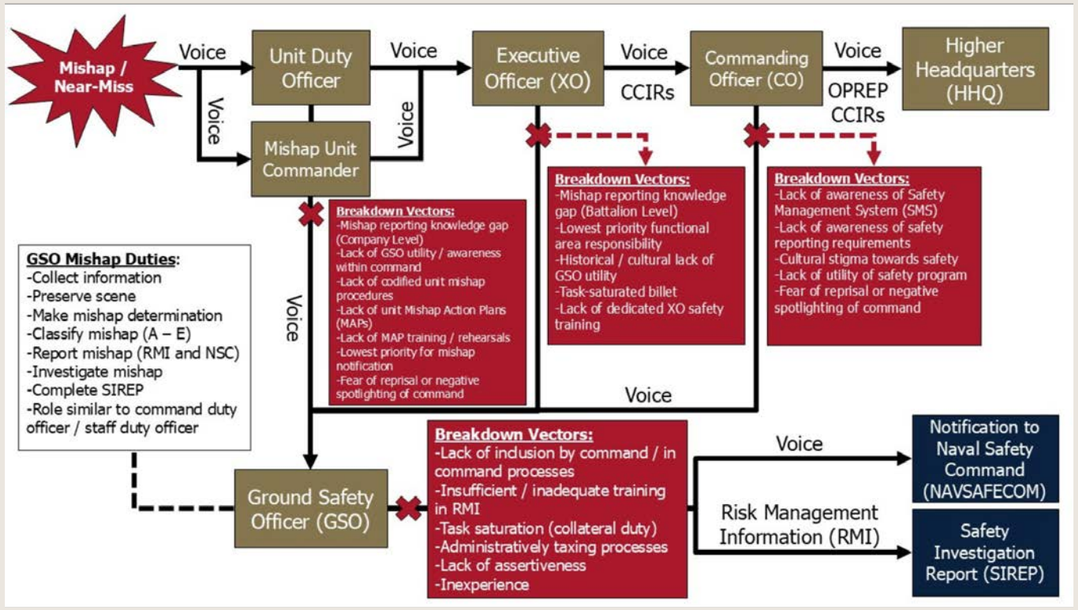
Knowledge Gap in Safety Reporting Requirements
Few company-level leaders know the definition of a mishap or can clearly outline mishap reporting requirements beyond simply notifying their boss that an incident occurred. Additionally, few commands include their collateral-duty GSO/GSM in the reporting process to ensure that a safety investigation is conducted and that a Safety Investigation Report (SIREP) is submitted in Risk Management Information (RMI), the safety program of record.

Lack of Reporting Culture
When a 'fender bender' happens during a unit convoy but no one is hurt, leaders often don't consider it a mishap. Instead, it's treated as a counseling session for the negligent driver, a training debrief point for the after-action report (AAR) and a Global Combat Support System (GCSS) service request to repair the damaged vehicles. Because no Marines were seriously injured, leaders and commanders may not feel obligated to report that "an unplanned event that resulted in damage to DoD property" occurred. Unit leaders often fail to see this as a mishap or an opportunity for growth within the unit or the service. It's considered business as usual.

Fear of Negative Attention
Marines are competitive by nature and Marine leaders competing against one another may be hesitant to report mishaps according to the service's definition. This issue is exacerbated by the fact that most ground units under-report mishaps, meaning that leaders who report accurately may be perceived as underperforming in comparison.

Cultural Stigma
Safety is often viewed as being at odds with the warfighting philosophy of the Marine Corps and as counterproductive to the warrior ethos. Leaders may not recognize the value of safety programs in preserving readiness or understand that safety is a by-product of a professional warfighting organization.

Reporting provides a variety of benefits at both the small-unit and Service levels. **The foremost benefit is this: Leaders cannot solve a problem they don't know about or fully understand.**



2023 GEICO
MILITARY SERVICE AWARD
MARINE CORPS

The GEICO Military Service Awards Program recognizes enlisted members as citizens and service members. The award helps spotlight the valuable and lasting contributions that enlisted members make in their communities.

Serving as an avionics technician instructor with Aviation Maintenance Squadron 2, Marine Aviation Training Support Group 23, NAS Pensacola, Florida, Sgt. Travis E. Mann is recognized for his exceptional dedication as both an instructor and a community volunteer. Sgt. Mann trained 26 entry-level students in advanced avionics, achieving an outstanding 92.63 percent average GPA and a 100 percent graduation rate. Beyond technical instruction, he provided mentorship to junior enlisted Marines and Sailors, fostering physical fitness, career development, and strong character foundations.

Sgt. Mann's impact extends far beyond the classroom. His commitment to service is demonstrated through over 400 volunteer hours with programs such as Miracle Messages, where his efforts led to the family reunification of over 500 individuals experiencing homelessness. Through Rise Against Hunger, he packaged and distributed meals to homeless shelters, contributing to the fight against hunger. While stationed in Japan, he assisted with recovery efforts following catastrophic flooding and mudslides, helping displaced families rebuild their lives.

Sgt. Mann's unwavering dedication to his students, his community, and those in need sets a standard of excellence for others to emulate.

2023 CIVILIAN SAFETY PROFESSIONAL OF THE YEAR AWARD

As the Safety Director for Headquarters and Services (H&S) Battalion, HQMC at Joint Base Fort Myer-Henderson Hall (JBM-HH), Mr. Barnett oversees the safety of over 3,500 personnel worldwide. He revitalized the safety program by reviewing regulations and creating a unified safety SOP for the command. This effort streamlined processes and operationalized safety practices across all command personnel and workspaces. His leadership in ensuring compliance with safety standards and programs has significantly improved the safety posture of the battalion.

Mr. Barnett conducted regular proactive safety inspections, known as "battlefield circulation," to prevent injuries and illnesses. His thorough checks of safety equipment, PPE, and fall protection, as well as his oversight of facility maintenance safety, played a key role in minimizing risks. He also implemented several safety programs, such as Unit Safety Representatives (USRs), 10-minute safety talks, and near-miss reporting, which accelerated the identification and resolution of safety issues within the battalion.

He spearheaded innovative safety initiatives, including personalizing a safety magazine for the Department of Defense (DoD) in collaboration with the National Safety Council, which was the first of its kind. Additionally, he created a command safety app, reaching all 3,500 personnel to distribute safety information, resources, and mishap reporting tools. These initiatives enhanced communication and safety awareness across the command.

Mr. Barnett also took charge of the Battalion's Force Preservation Council (FPC), focusing on the well-being and support of struggling Marines. He led the implementation of the Command Individual Risk and Resiliency Assessment System (CIRRAS), overseeing 135 separate monitored command codes for the battalion. His comprehensive approach to safety and personnel wellness has had a lasting impact on the command.

Known as "Safety Ken" for his approachability, passion for safety, and dedication to the well-being of personnel, Mr. Barnett's leadership has fostered a positive safety culture throughout the battalion. His energy, charisma, and innovative ideas have contributed to the transformation of the safety program and enhanced the overall safety posture of Headquarters Marine Corps during FY23. His efforts have not only prevented accidents but also helped create a safer, more resilient work environment for all personnel.

MR. KENNETH BARNETT
"SAFETY KEN"

FROM SCI-FI TO REALITY:
ADVANCING LASER SAFETY IN THE MARINE CORPS

This article courtesy of the Range and Training Area Management (RTAM), Range and Training Programs (RTPD), Training and Education Command (TECOM)

In the 1964 classic Goldfinger, the villain, Auric Goldfinger, made famous the iconic phrase, "No, Mr. Bond, I expect you to die" as he powered on his industrial laser. The high-power laser that threatened to bisect 007 seemed so futuristic and was the sort of exciting technology that was a staple of 1960s action movies. Fast forward 60 years, and it is no longer mere science fiction. The United States Marine Corps, our sister services and our international partners are fielding lasers with the kind of power that put Mr. Bond in great peril. No longer are the systems contained in massive containers requiring semi-trucks just to bring them to the range. Systems like the Compact Laser Weapon System (CLaWS) are conducting counter-Unmanned Aerial Systems (UAS) operations on our ranges and while at sea. During Operation Iraqi Freedom (OIF), Operation Enduring Freedom (OEF), and even today, Marines utilize handheld Infrared Zoom Laser Illuminator Designator (IZLID) 1000P, which can designate targets at distances beyond 30 kilometers. In the world of Explosive Ordnance Disposal (EOD), systems are being tested that can render safe munitions beyond 1,000 meters, burn the skin at 1,600 meters and blind individuals at 16 kilometers. The inherent danger of these systems has prompted a reevaluation and revision of our range safety policy and tools for training on these new systems.

A Boeing CLaWS unit.
(Photograph courtesy of Boeing Inc.)

U.S. Marine Corps LCpl. Broc Miller and LCpl. Christopher Walker, set up a Compact Laser Weapon System (CLaWS) in Yuma, Arizona. (U.S. Marine Corps photo by Lance Cpl. Larisa Chavez)

The policies governing laser operations on Marine Corps ranges are MCO 3570.1C, Range Safety, and MCO 5104.1C, Navy Lasers Hazard Control Program. Both documents are in revision, and updates are on the horizon. Revisions to MCO 3570.1D will not significantly change laser operations, but this major update includes new safety requirements for various systems, adds new technical data for small arms weapons, and makes administrative changes throughout the order. Two significant changes in MCO 5104.1D will directly affect the Fleet Marine Force (FMF) and are being rolled out soon. First, the education and titles of our Laser Safety Officers (LSOs) have been streamlined. Second, the role of Training and Education Command (TECOM) in approving foreign partner lasers is clarified. Our strong partnerships across the North Atlantic Treaty Organization (NATO) will result in NATO systems being authorized for use on Marine Corps ranges. Lastly, Range and Training Area Management (RTAM) Range Safety is working with our sister services to revise the Department of Defense (DoD) Handbook on Range Laser Safety, MIL-HNBK-828C. This handbook will have new introductory information on probabilistic risk assessment in laser operations and High Energy Laser (HEL) usage in training and operations. While the handbook is not regulatory, it will provide range facilities and end users with best practices and control measures for the use of high-energy systems.

The policies listed above directly steer the requirements of the Laser Range Management Tool (LRMT). Unlike in Goldfinger and other Bond movies, the lasers the Navy and Marine Corps use are not flashy or loud, nor do they resemble the works of science fiction. Lasers employed for military use are non-visible, quiet and most are accompanied by clear warnings such as, "This system is capable of immediate and permanent eye damage." To visualize, understand, and mitigate laser hazards, we use LRMT to analyze laser energy on the ranges, ensuring accurate and safe geometries and implementing appropriate control measures. LRMT provides a worst-case scenario analysis when employing a laser system on a given range with user-defined parameters. LRMT is currently owned and maintained by RTAM Range Safety and Design Section. The section also conducts in-person laser range surveys for Marine Corps ranges. Once the LRMT analysis is complete, the range is certified for a three-year period for lasers up to class 4 (the most dangerous). These certifications and any changes or extensions are maintained by the laser range safety section via the Marine Corps Range and Training Area Management System (MCRTAMS) (https://rtam.tecom.usmc.mil/).

Range Control Officers (RCOs) use the laser certification for updates to the range Standard Operating Procedures (SOP). The RCO is the first step in conducting range activities that are outside of normal laser operations. The RCO can review your training plan and decide whether it conforms to the certification and SOP. However, when a requesting unit wants to conduct non-standard activities in training or use non-program-of-record laser systems, the RCO will contact RTAM Range Safety for guidance and approval. Range Safety will review the event and either: One, conduct a new analysis for the non-standard activity for the RCO's review; or two, research the non-program-of-record system and generate a Limited Range Safety Release (LRSR). The LRSR allows the unit to conduct non-standard or templated training with a specific laser on a specific range during a specific timeframe. The LRSR is not a "blanket authorization" to use the laser whenever and wherever the unit would like. These are typically systems with limited safety data and are in the evaluation phase. At a minimum, the laser system needs to be reviewed by the Department of the Navy Laser Safety Review Board (LSRB) or another competent authority, whether from another component in the DoD or from a national authority of a partner nation before RTAM can begin work on the LRSR.

The RTAM Range Safety office typically needs 30-60 days to review the laser system employment plan, generate the LRSR, and staff it for signature by the Head of RTAM. If the system is particularly complex or the range activity has factors that require additional review or requests for information (RFIs), that timeline could be slightly longer.

TYPE	INJURY OR RISK	RISK LEVEL	PRODUCT EXAMPLES
Class 1, 1M	Considered non-hazardous. Hazard increases if viewed with optical aids, including magnifiers, binoculars, or telescopes.	Low	• Laser printers • CD players • DVD players
Class 2, 2M	Hazard increases when viewed directly for long periods of time. Hazard increases if viewed with optical aids	Low-Medium	Barcode scanners
Class 3R	Depending on power and beam area, can be momentarily hazardous when directly viewed or when staring directly at the beam with an unaided eye. Risk of injury increases when viewed with optical aids.	Medium-High	Laser pointers
Class 3B	Immediate skin hazard from direct beam and immediate eye hazard when viewed directly.	High	• Laser light show projectors • Industrial lasers • Research lasers
Class 4	Immediate skin hazard and eye hazard from exposure to either the direct or reflected beam may also present a fire hazard.	Extreme	• Laser light show projector • Industrial lasers • Research lasers • Medical device lasers for eye surgery or skin treatments

In conclusion, whether it is a new, gimbaled laser range finder on a helicopter or 'sharks with lasers on their heads,' RTAM Range Safety is available to facilitate the process. We may not be able to provide the sharks, but the Range Safety section can answer questions, conduct range analysis and certifications, address laser policy and its application, or help with MCRTAMS access. Do not hesitate to email the RTAM Laser Range Safety Section.

RTAM LASER RANGE SAFETY SECTION
POINTS OF CONTACT

MR. JOHN KORNEDER
LASER RANGE SAFETY LEAD
JOHN.KORNEDER@USMC.MIL

MR. JAMES JORDAN
LASER SUBJECT MATTER EXPERT
JAMES.JORDAN.CTR@USMC.MIL

MEALS READY TO EAT (MRES):
STRATEGIC OPERATIONAL RATIONS

Article Courtesy of Safety, G-4, Marine Corps Installations Command (MCICOM), Installations & Logistics (I&L)

Meals Ready-to-Eat (MREs) have become a staple in military operations due to their convenience, durability and nutritional value. Here's a breakdown of their usefulness and answers to questions received from military personnel over time.

USEFULNESS OF MREs

1. **Portability and Convenience:** MREs are designed to be lightweight and easy to carry, which is crucial for Marines who need to move quickly and efficiently. Each meal is packaged in a compact, durable container.
2. **Nutritional Value:** MREs provide a balanced mix of carbohydrates, proteins and fats to sustain energy and health during intense physical activity. They are formulated to meet the daily caloric and nutritional needs of service members in various operational environments.
3. **Long Shelf Life:** MREs are designed to be shelf-stable for extended periods, often up to 36 months at 80 degrees Fahrenheit, depending on storage conditions. This long shelf life ensures meals remain safe and nutritious over time.
4. **Ease of Preparation**: Many MREs include a flameless ration heater (FRH) that allows Marines to heat their food without needing a traditional stove or fire. This benefit is particularly useful in field conditions where resources are limited.
5. **Variety and Choice:** Modern MREs come in a variety of menus to prevent food fatigue and ensure that Marines have options to suit different tastes and dietary restrictions.
6. **Adaptability:** MREs are designed to function well in a range of environmental conditions, including extreme temperatures. This adaptability is crucial for operations in diverse and challenging environments.

Overall, MREs are a critical component of military logistics, providing Marines with reliable and efficient nutrition in various operational settings. Their development reflects ongoing advancements in food science and military needs, ensuring they remain a vital part of modern military operations. Development continues to pivot around Marine engagements, combat loads and acceptability while still providing energy to meet the physical and cognitive demands of the mission. The operational ration is an extension of the USMC strategic feeding platform.

Lieutenant Colonel
Bryan P. Sargent (Ret.)
Ground Section Head
CMC (SD),
Arlington, Virginia

SAFETY SPOTLIGHT

An artillery officer by trade, Lieutenant Colonel Bryan Sargent served as Ground Section Head at Commandant of the Marine Corps (CMC) Safety Division from July 2021 to September 2024. During his final tour of duty as the Service's appointed ground safety representative and advocate, Lieutenant Colonel Sargent was instrumental in the conception, development and implementation of several critical ground safety initiatives for the service, to include bringing consistency to Ground Warrior magazine with four consecutive publications, facilitating general officer engagements and videos, and managing tactical vehicle mishaps corrective measures. Always a staunch advocate, he facilitated Service-level platforms for the safety, motor transport, and corpsman communities to advocate for education, resources, and training standardization. Hardworking, passionate, and relentless, Lieutenant Colonel Sargent strived each and every day to put forth his best effort to manifest positive change within the institution. He accomplished more in two years as Ground Section Head, than several of his predecessors combined. Lieutenant Colonel Sargent's superior performance of duties culminated his 27 years of honorable and dedicated military service to the Marine Corps. Fair Winds and Following Seas, Marine!

FREQUENTLY ASKED QUESTIONS

The team from I&L at the MCICOM answers your frequently asked questions about MREs. And no, the gum is not a laxative.

Question (Q): How can you test them if they are expired (by date)?
Answer (A): Army Inspectors perform inspections to see if the ration's shelf life can be extended in 6-month increments.

Q: When is the drop-dead date when they might make you sick?
A: The quality of the food decreases after the 3-year shelf life, but food safety is not impacted unless there is a packaging failure during rough handling or storage.

Q: Is there a weight standard for a modern MRE?
A: The average MRE weighs 1.2 pounds. Ongoing efforts to decrease packaging and weight continue at the DEVCOM Soldier Center. To decrease the carrying load, operational rations have minimal water content, making hydration a priority for Marines in the field.

Q: How many calories if you eat everything?
A: An average of 3,900 kcal for three MREs a day, meeting or exceeding Nutritional Standards for Operational Rations (NSOR) per MCO 10110.49. Each component is designed to contribute to the overall nutrient load and acceptability to the warfighter.

Q: Is the gum really a laxative?
A: No. A laxative would not be beneficial to the warfighter or strategic in any way to the mission.

Q: If you save weight with a "field stripped" MRE, does it shorten the expiration?
A: No. The meal bag provides no barrier properties to improve shelf life. However, eliminating too many components compromises the caloric load designed for the warfighter. Adding extra vitamins and minerals to food components maximizes performance.

Q: Is everything fully cooked and edible unheated?
A: Yes. MREs are designed to be eaten without heating. The heater is provided as a personal preference and morale booster.

Q: How many different varieties are there?
A: 24 menus.

Q: Can you save a leftover for a day or two without refrigeration?
A: No.

Q: Do veggie MREs last longer than meat MREs?
A: No.

Q: Who decides on the "menu," and can Marines make recommendations or complaints?
A: DEVCOM Soldier Center conducts military user evaluations and presents recommendations to the services for approval. Yes, Marines can make recommendations. These should be forwarded to DC I&L, LF, MCICOM (G-4 Food Service and Subsistence Branch).

Q: What is different between Case A and Case B?
A: Case A is pork-free. Case B contains a few pork menus. There are 12 different menus in each box, designed to support deployments and conflicts in countries that do not allow pork products.

Q: What are the most favorite menu items?
A: A long-standing favorite across the Services is spaghetti with meat and sauce. A newer favorite is the chicken burrito bowl.

IMPROVING AQUATIC SURVIVABILITY IN THE CORPS

Article by Veronica Laguna, Aquatics Conditioning and Performance Recreation Program Specialist - Semper Fit

Modern warfare can take Marines from deserts and mountains to rivers and coastal regions. Marines must navigate rough terrains, carry heavy loads and endure long marches. Superior physical fitness ensures they can perform these tasks efficiently, reducing the risk of injury and increasing operational effectiveness.

Marine Corps total fitness (MCTF) encompasses physical fitness, both on land and in aquatic environments. This approach ensures warfighter readiness, lethality and resilience which are top priorities for the Marine Corps. Swim Survival Skills Training (S3T) is an element of the MCTF and Warrior Athlete Readiness and Resilience (WARR) collaborative effort for health, wellness and performance.

The rollout, which occurred Aug. 13-15, 2024, at Marine Corps Water Survival Schools (MCWSS), Camp Johnson, North Carolina, brought together aquatic specialists from multiple entities within the Marine Corps to receive training in the components and methodology of the program. S3T is a Marine-focused logically progressive swimming skill curriculum designed to increase the service member's familiarity with an aquatic environment and survivability, improve qualification rates and reduce on- and off-duty drownings, thus enhancing the Marine Corps' force preservation posture. Mimicking the Marine Corps Water Survival Program (MCWSP), the S3T curriculum consists of three levels (Water Survival Basic, Water Survival Intermediate and Water Survival Advanced) to teach and execute required aquatic competencies.

Semper Fit Aquatics partnered with the MCWSP to fill a critical need for swimming proficiency by developing the S3T program to aid service members in completing the swim qualification level required by their Military Occupational Specialty (MOS). The program is open to all active-duty and reserve Marines as well as Fleet Marine Force Sailors and is available at all Marine Corps Community Services (MCCS) Semper Fit Aquatics swimming pools during operating hours; at Water Survival Schools and at all other training tanks with a certified S3T coach.

Shawn Curtis, a safety and occupational health manager with Commandant of the Marine Corps, Safety Division, participated in the rollout session. Curtis, a former Marine Corps instructor of water survival and MCCS Semper Fit Aquatics manager, said the program is long overdue and will be a force multiplier as the Marine Corps' mission continues to grow in the littorals of the Indo-Pacific. Not only does this training boost the swim confidence of participants, itbut it also complements the Marines Corps' amphibious roots as "soldiers of sea," ensuring Marines possess the skill sets required for water-borne evolutions, whether operational or recreational, Curtis added.

Below is an interview with the Chief Instructor Trainer for MCWSS.

Q: Tell us about you.
A: I'm GySgt Litchfield, the Chief Instructor Trainer for the Marine Corps Water Survival School (MCWSS). I went through Marine Corps Instructor of Water Survival (MCIWS) school in 2011 and became an Instructor Trainer at the lead schoolhouse in 2021.

Q: What involvement did the Lead Marine Corps Water Survival School have in the training for MCCS to receive the Swim Survival Skills Training (S3T) certification?
A: The MCWSS assisted the S3T Staff by demonstrating the Marine Corps Water Survival Program events, up to the intermediate level. We explained the passing criteria, along with common faults that would prevent Marines from passing swim qualification events.

Q: How does Swim Survival Skills Training (S3T) work in tandem with the Marine Corps Water Survival Program (MCWSP) to address the challenges of the warfighter operating in Aquatic environments?
A: The S3T program supports the MCWSP by providing familiar training for basic and intermediate level events. Marines who struggle during their qualification with the MCIWS can seek help from MCCS staff certified in the S3T program.

Q: What are the resources for commanders in the fleet to ensure that their Marines utilize S3T as a tool to prepare for deployments to an aquatic environment?
A: S3T allows commanders in the fleet to use MCCS personnel and training facilities to train Marines on the same type of events they will be required to pass in basic and intermediate swim qualifications. Unlike MCIWS, which requires scheduling through Range Facilities Management Support System (RFMS), S3T provides more accessible training options without pulling instructors from their primary duties.

Mr. Shawn Curtis, Safety and Occupational Heath (SOH) specialist and former Okinawa Water Safety Officer, demonstrates uniform inflation techniques designed to maintain positive buoyancy and perserve energy.(Photo courtesy of CMC (SD))

Q: How does the S3T Program provide support to Marine Corps Instructors of Water Survival (MCIWS) and MCWSP?
A: MCIWS is an additional duty for Marines in the fleet, so they are already tasked with responsibilities for their primary MOS. This often leaves limited time for remedial training. S3T offers a structured, consistent schedule for MCIWS to send Marines to learn fundamental water survival techniques.

Q: Can service members who do not have the MCIWS Military Occupational Specialty (MOS) receive S3T training to support the MCWSP? If so, how would it enhance mission readiness?
A: It wouldn't be logical for a MCIWS to be trained in coaching S3T, as they are focused on instructing the MCWSP. The primary focus for S3T coaching certification is Marine Safety Swimmers (WSA/WSP), who have advanced through water survival qualifications but are not yet certified MCIWS instructors. MCIWS have no need to teach S3T as their role is to instruct the MCWSP.

Q: What stakeholders are involved in the implementation of the S3T Program to augment the MCWSP? If so, will there be any official written guidance published in the near future?
A: This involves coordination between the Marine Corps Water Survival Schools, MCCS staff, and unit commanders. There is also a draft Marine Corps Order that designates S3T as a resource to assist commanders and MCIWS with preparing Marines for basic and intermediate swim qualifications. Further official written guidance will likely be published in the near future.

Q: Are there any proposed revisions/changes to the MCWSP that will support S3T curriculum? Furthermore, will there be written policy which makes S3T an official Marine Corps training program?
A: There is a draft Marine Corps Order that includes S3T as a resource to help commanders and MCIWS prepare Marines for swim qualifications. While S3T will not directly qualify a Marine for unit requirements, it acts as a prep or remedial training program for Marines struggling to pass their swim qualifications.

Q: What future collaboration is planned between Semper Fit Aquatics and Marine Corps Water Survival Schools to ensure Marines are prepared to meet the rigors of the swim qualification level required by their MOS?
A: We hope for continued open communication to stay updated on changes and challenges within the Marine Corps, especially regarding aquatic training. This collaboration will help ensure that Marines are adequately prepared to meet swim qualification requirements.

Q: Any final comments?
A: The S3T program is a well-developed resource that can significantly improve Marines' swimming abilities. The hope is that MCIWS and unit commanders will utilize MCCS staff to regularly teach these techniques. With more facility access and training opportunities, Marines will be better prepared to overcome the challenges of water survival while using combat gear. The overall goal is to improve the success rate for MCIWS during swim qualification events.

For more information on S3T, or to participate in the program speak with your local Semper Fit/WARR Aquatics Program representative.

U.S. Marine Corps photo by MCIPAC Combat Camera Lance Cpl. Brooke Deiters

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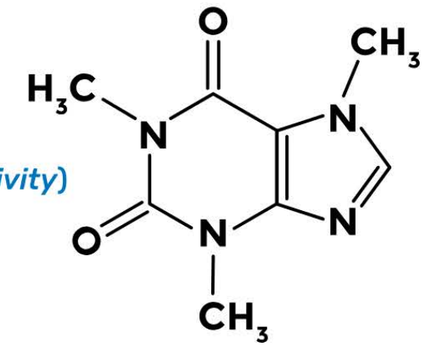
CAFFEINE & PERFORMANCE

If needed, you can use caffeine to boost your mental & physical performance in certain situations. If you're going to use it, here's how.



USE UP TO 200 MG AS FOLLOWS:

ENDURANCE PERFORMANCE (*more than 60 minutes of continuous activity*)
- 30–60 minutes before activity.

MENTAL PERFORMANCE
- 15–30 minutes before task.

RESTRICTED SLEEP (*less than 6 hours of sleep in 24 hours*)
- 1 dose on waking.
- Re-dose every 3–4 hours only if needed.

NIGHT SHIFTS WITH DAYTIME SLEEP
- 30–60 minutes before start of shift.
- Re-dose every 3–4 hours only if needed.

SUSTAINED OPERATIONS (*no sleep in 24 hours*)
- 1st dose at midnight. Re-dose every 3–4 hours only as needed.
- Use during daytime hours only if needed.

CAFFEINE TIPS:

- Avoid consuming caffeine 4–6 hours before bedtime.
- Do not exceed 600 mg caffeine per 24 hours (800 mg for sustained operations).
- Consider ALL sources of caffeine in your diet, including foods, beverages, and dietary supplements (not limited to the items listed on the next page).
- Caffeine can temporarily improve performance. It is not a substitute for sleep.

SAFETY RESOURCES

The following safety tools are essential to establishing / utilizing your Safety Management System (SMS)

- CMC SD PUBLIC WEBSITE
- MCSMS MCO 5100.29C
- MCSMS REQUIREMENTS TRACKER
- MCSMS FUNCTIONAL AREA CHECKLIST
- GROUND SAFETY TRAINING & READINESS MANUAL NAVMC 3500.110A
- 2022 SAFETY INVESTIGATION & REPORTING GUIDE
- RANGE SAFETY POCKET GUIDE (OIC/RSO EXTRACT)
- SAFETY AWARENESS PRODUCTS
- SAFETY COMMUNITIES PAGE / BEST PRACTICES (MARINENET LOGIN
- MISHAP LIBRARY (MARINENET LOGIN)
- GROUND WARRIOR MAGAZINE

THE GROUND WARRIOR TEAM IS LISTENING! WE WANT EVERY OPINION!

We want to improve upon every product we produce for our Marines, Sailors and civilians.

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thank you!

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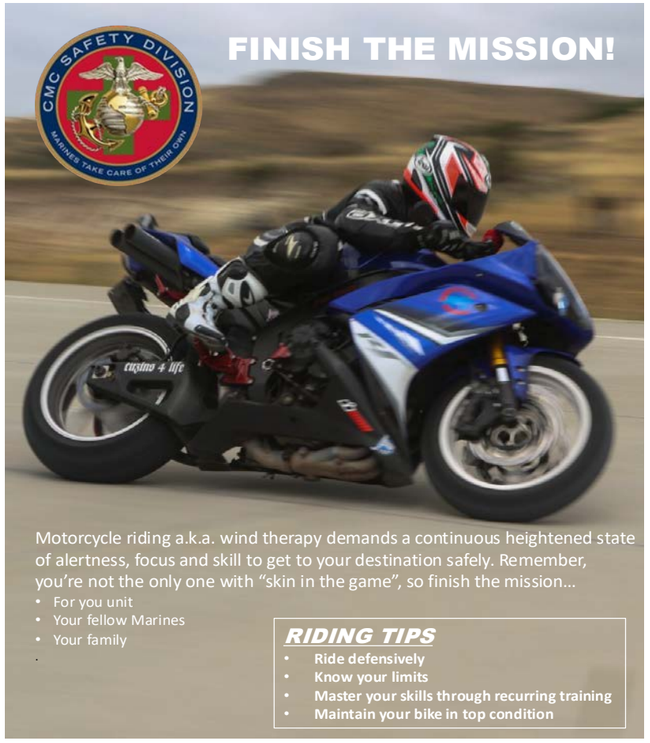
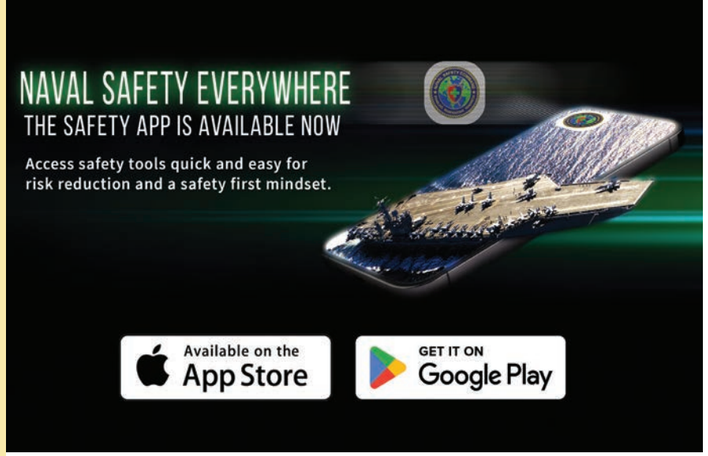




Safety in Your Pocket

By Leslie Tomaino

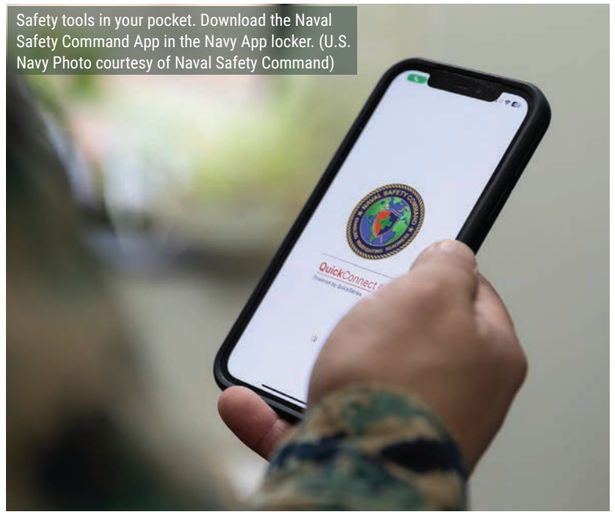
Naval Safety Command (NAVSAFECOM) app is a mobile-friendly way to keep up to date on all things Navy and Marine Corps safety and risk management. The app allows Sailors and Marines on-the-go access to safety-focused learning and improved communication.

The mobile app is a robust toolkit containing NAVSAFECOM products, such as checklists, forms, news, videos, instructions and directives, as well as warfare community-specific products and information. It reinforces important safety and risk management information that can be universally useful throughout the naval enterprise, from safety representatives to service members daily.

"This mobile application allows our Sailors and Marines to access and download information in advance for use remotely," said CMDCM (AW/SW) Dean Sonnenberg, NAVSAFECOM command master chief. "This app is an additional tool for the warfighter and safety professional to help advance our mishap-focused, reference and standards-driven lens."

Users have the option to personalize their preferences and select content specifically relevant to warfighting communities and categories. These communities include aviation, shore, afloat and expeditionary.

Users can download the free app from the App Store (Apple) or Google Play by searching "Naval Safety Command" or "NAVSAFECOM" in the app stores or your web browser. Sailors and Marines can also find this app and many others in the Navy App Locker: https://www.applocker.navy.mil ■


Safety tools in your pocket. Download the Naval Safety Command App in the Navy App locker. (U.S. Navy Photo courtesy of Naval Safety Command)

GROUND WARRIOR

SEND US YOUR STORY & PHOTOS!

ARTICLE/PHOTO SUBMISSION GUIDELINES

When submitting articles and photos, please include:

Title: Headline, though it is subject to change

Author info: Rank, first and last name, as well as unit or organization

Article: Authors should fact check and ensure statements are backed by references or sourced data. Spell out acronyms on first reference. Spell out all organizations and units, as well as city, state or country. Authors need to ask a team member and/or subject matter expert to review article before submitting. NAVSAFECOM and/or CMC SD may make additional changes for clarity and style during the review process. Article length should be 450-1600 words. Safety Spotlight inputs should be 90-150 words and include a photo.

Photos: All submissions must be sent as separate files and approved for public release. Images should adhere to established safety and security policies. Images should be the original with minimum 1 MB file size. Include the photographer's full name, rank, unit and full description of the image and date taken.

Send to: GroundWarriorMagazine@usmc.mil

We look forward to including your submissions!

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