



Safety Gram

Marine Corps Mishap Synopsis / & Lessons Learned

Safety Division's Monthly *Safety Gram* is provided to senior leaders to maintain awareness of mishap trends that directly affect the operational readiness of the Corps. This information should also be disseminated at every level of your command to assist high-risk Marines and Sailors in understanding the impact of the decisions they make every day both on and off-duty.

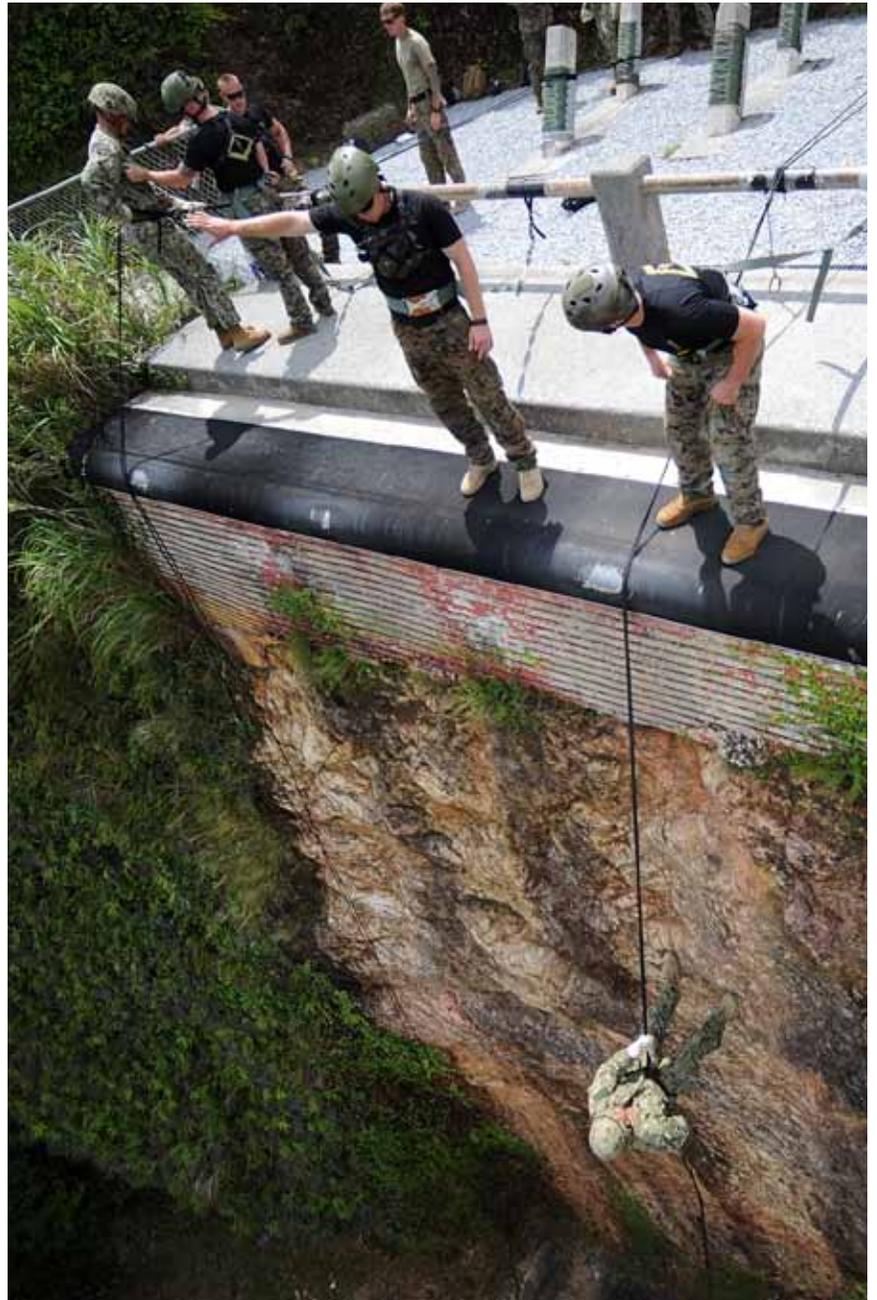
ISSUE 24, SEPTEMBER 2013

Fall Protection Guide

As of August 2013, the Department of the Navy released its 2013 edition of the Fall Protection Guide for Shore Facilities. This publication is a single "one stop" for instructions, orders, criteria, requirements, and best practices for Navy and Marine Corps Fall Protection Program.

The guide's purpose is to heighten awareness and protect all DON personnel from mishaps due to falls from heights above four feet. This guide serves to educate military and civilian personnel on the dangers of falls from height, and to protect all members of the Navy and Marine Corps from such threats. The Bureau of Labor Statistics reported that almost 700 fatalities took place in 2011 due to slips, trips, and falls, and accounts for 14% of total workplace fatalities.

The Fall Protection Guide is endorsed by CMC Safety Division. It provides information on fall protection programs, training, safety equipment, prevention methods, threats in various work environments, rescue tactics, and various other relevant details. Find the Fall Protection Guide for Shore Facilities online at www.safety.marines.mil/Unites/Ground.aspx, and inquiries can be directed to NAVFAC's Fall Protection Engineer, Mr. Basil Tominna (basil.tominna@navy.mil) or MARFORCOM's Safety & Occupational Health Specialist, Mr. Stephen Crue (stephan.crue@usmc.mil).



Why Electrical Safety?



This article uses analysis of data from the U.S. Department of Labor Bureau of Labor Statistics and other sources to illustrate the low frequency/high consequence phenomena of occupational electrical injuries. Consideration of the data analysis helps answer the question, “Why invest in technology and methods of hazard control

that go beyond the minimum standards and code requirements for electrical safety associated with facilities, equipment and systems?” These facts are drawn from review of literature on the topic of occupational electrical injuries and fatalities (shown right).

Facts 5 & 6 confirm the low frequency phenomena of electrical injuries. Facts 1 through 5 reveal the high consequence phenomena of severity of injury and extraordinary medical costs of non-fatal injuries.

Within the context of total injuries from all causes, electrical injuries are sufficiently rare that an organization may have an illusion that minimum compliance with design and installation standards is an effective solution. Minimum compliance with mandatory codes and standards tend to depend heavily on administrative controls that are vulnerable to human error. Augmenting mandatory standards and codes in electrical designs with voluntary best practices in application of engineering design solutions can create an inherently safer working environment by reducing frequency and/or potential severity of exposures to electrical hazards. In addition to the physical and financial consequences of electrical injuries, there is another benefit of investing in prevention of electrical injuries. Business and commerce are dependent on electrical technology for energy, control, data, and communications essential to its operations. An organization that manages its electrical safety program as an asset, rather than a cost, will likely find opportunities to derive benefits across a broad set of business performance parameters. When mishaps occur in critical energy and control systems, a more likely consequence than injury is disruption of the operations served by the electrical systems. Whether it is a chemical plant, financial institu-

Electrical Injury Facts

1. Contact with electrical energy is the 7th leading cause of occupational fatality¹
2. One in 13 lost time injuries from electrical contact is fatal¹
3. Electrical injuries are the 2nd most costly workers compensation claim²
4. Non-fatal electrical injuries tend to have extraordinary lifetime medical and rehabilitation costs³
5. A study of electrical utilities showed contact with electrical energy was the cause of 1-2% of total injuries, but 27-54% of total medical costs³
6. Within the context of all non-fatal occupational injuries in the U.S., non-fatal electrical injuries account for <0.2% of non-fatal injuries from all causes¹

References

- ¹ Cawley, J.C., Brenner, B.C., Occupational Electrical Injuries in the U.S., 2003-2009, conference record of 2012 IEEE IAS Electrical Safety Workshop, January 30 – February 3, 2012, Daytona Beach, Florida
- ² “Work Related Electrical Injuries: Study Sparks New Insights”, Liberty Mutual Research Institute for Safety, vol 13, No. 3, Winter 2010
- ³ Wyzga, RE, Lindroos, W.,” Health Implications of Global Electrification”, Annals of the New York Academy of Sciences, 1999, vol 888, pp1-7.

tion, medical facility, mass transportation, military base or almost any other component of our modern society, an incident resulting in disruption to electrical systems critical to operations can have very significant financial losses. For example, an incident resulting in disruption of electrical energy or control to a hazardous chemical process could result in a process safety event, waste of raw materials, loss of production, and damage to facilities and equipment. A similar incident in a credit card transactions processing center can impact millions of dollars in banking transactions. For military installations, the underlying benefit of preventing mishaps in critical electrical systems is will vary, dependent on the mission of the equipment or installation.



Safety Gram

September 2013: Mishap Summary

The Mishaps below occurred throughout the USMC from September 1 - 30, 2013, causing serious injury or death to Marines, and/or damage to equipment.



2 September 2013: A Marine was involved in a multi-vehicle accident while riding a motorcycle. While attempting to pass a vehicle on the left, in a no-passing zone, he struck the side of the vehicle when the driver attempted to turn left. The Marine was pronounced deceased at the scene.

16 September 2013: While conducting breaching operations, a mine clearing line charge malfunctioned resulting in the assault amphibious vehicle (AAV) catching fire. Four of the five crew members were able to evacuate the AAV, while one member is deceased. The evacuated personnel were treated for smoke inhalation, with one member being treated for second degree burns.

17 September 2013: While tracking a deer on a hunting excursion near his property, a Marine fell into a 70-foot sinkhole filled with rocks and sticks. The Marine's spouse contacted the command and the fire department, who searched for and located him. The Marine suffered severe trauma and was pronounced dead at the scene.

21 September 2013: While riding a motorcycle, a SNO lost control and struck another vehicle head-on when he crossed the center line. The Officer was declared deceased on the scene by first responders, and had been wearing all required personal protective equipment.

25 September 2013: Marine was involved in a single car accident where he was reported to have hit a median strip, lost control, and rolled his vehicle. He was pronounced dead on arrival by emergency services due to blunt force trauma.

26 September 2013: A Marine succumbed to traumatic brain injury sustained in a single vehicle rollover accident while recovering in the hospital. The individual was not wearing a seatbelt and was ejected from the vehicle.

Marine Corps Safety and Supervisor's Guide to Medical Surveillance

The Marine Corps Medical Surveillance Working Group concluded the summer of 2013 with the release of the first edition of the Marine Corps Safety and Supervisor's Guide to Medical Surveillance. This guide assists commanders, supervisors, safety officers, and medical department representatives with resources to improve their medical surveillance knowledge, skills, and competencies for their own development, as well as the training of others.

The 16-page document is broken down into sections on Program Management, Background Information, Pertinent Instructions and Guidance, Elements of the Medical Surveillance Program, and Medical Surveillance Stakeholder Roles and Responsibilities. Information contained in the Guide to Medical Surveillance will assist responsible parties in efforts to negate the harmful effects of hazardous substances and conditions, for both military and civilian personnel.

As indicated in DoD Directive 6200.04, it is imperative to:

Implement programs and processes that promote and sustain a healthy and fit force, prevent injury and illness, protect the force from health hazards, and deliver the best possible medical and rehabilitative care to the sick and injured anywhere in the world.

Echoing the primary objective of CMC Safety Division - force preservation - this directive spurs on the essential nature of guides such as this one, and others like it. Safety officers and other responsible personnel are encouraged to utilize the Guide to Medical Surveillance as an invaluable tool to protect themselves and their peers from medical threats in their environment.

The Guide for Medical Surveillance is being hosted at the CMC Safety Division's website, at www.safety.marines.mil/About/SpecialPrograms. Questions regarding the Guide should be directed to Mr. Rufus Godwin at 703-604-4387 or rufus.godwin@usmc.mil.



Safety Gram

Call for Nominations: FY 2013 Marine Corps Ground Safety Awards

CMC Safety Division is pleased to announce that nomination packages for the 2013 Marine Corps Ground Safety Awards are being accepted. These honors are in place to recognize commands and individuals for significant contributions and accomplishments in the field of safety and mishap prevention. In order to honor those who have placed a priority on safety, a number of award categories are available:

- Marine Corps Warrior Preservation Award: presented to the USMC installation that has established the most outstanding safety program.
- Marine Corps Superior Achievement in Safety Award: honors an individual - one for an enlisted Marine, one for an officer, and one for a civilian - who has made the most significant contributions to their command safety program.
- Marine Corps Achievement in Safety Award: awarded to a USMC command in each category - specified by command size, as Groups I-IV - that has established the most comprehensive safety program.

In order to put forward recommendations for these awards, nomination packages should be provided to CMC (SD) by December 20, 2013. This package should include the following:

- Contents which clearly identify, concisely present, and overtly demonstrate achievements toward

safety goals and objectives

- A signed cover letter from the nominee's commanding officer, providing endorsement of the nominee, the award category, and the name and phone number of a command POC.
- A letter of endorsement from the first General Officer in the Chain of Command.

Nomination packages may be provided to CMC (SD) by email, at HQMC_Safety_Division@usmc.mil, or via U.S. Postal Service, to the following address:

Commandant of the Marine Corps
Safety Division
701 S. Courthouse Road
Suite 20050
Arlington, VA 22204-2462

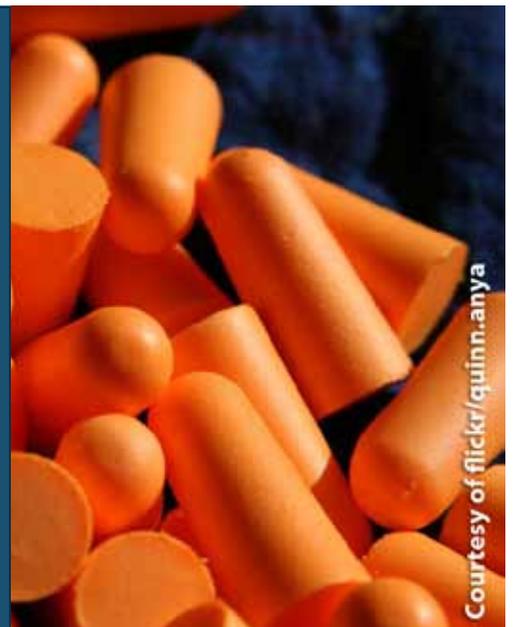
The Ground Safety Award point of contact is Mr. Joe Pinkowski, who can be reached at 703-604-4378, or at joseph.pinkowski@usmc.mil. All submitted nominees will automatically be considered for the Department of the Navy Safety Excellence Awards for Marine Corps Ground Safety.

CMC (SD) looks forward to recognizing those individuals and commands who have dedicated time, effort, and resources toward the goals of force preservation and Marine safety.

Hearing Conservation

The Marine Combat Camera Service Support Schools - Combat Camera Instructional Media, Camp Johnson, NC, in tandem with Naval Hospital Camp Lejeune Audiology Department, recently produced a comprehensive training video for annual unit hearing conservation training. This media, titled *Hearing Conservation, Sound Advice*, is presented in a documentary format, portraying service members from across the military who speak on their hearing loss, and why it is important to protect one's hearing in battle and in everyday life.

Commands seeking to implement or improve upon their Hearing Conservation training program may contact Mr. Rufus Godwin at rufus.godwin@usmc.mil to request a DVD copy of *Hearing Conservation, Sound Advice*, and the video is also available online at www.vdidshub.net/video/299199/hearing-conservation-sound-advice#.



Courtesy of flickr/quinn.anya





Peter Hill, CMC (SD)

The Safety community has no doubt observed a transition in motorcycle training over the past month. The Contract with Cape Fox Professional Services, who has provided the majority of traffic safety courses across the Navy and Marine Corps since 2008, expired August 31. Despite efforts going back a year, CNIC and the CMC (SD), working through Fleet Logistics Command San Diego, were not able to place a new contract by August 31. Consequently, the original contract was extended into September while a "Bridge Contract" was finalized. This Bridge will allow Cape Fox to stay on the job until the next contract is awarded, or September 2014 at the latest.

Some of the big changes with this transition are:

- The HYOSUNG GT250 training motorcycles that Cape Fox provided under the original contract are being transferred to the Installations as Base Property. These bikes will continue to be available for the Basic Rider Course, taught by contractors, Installation Safety Staff or qualified volunteer Rider Coaches from the units. These bikes provide Marines and Sailors who think they want to ride a way to get the training BEFORE making a purchase. Depending on the state where the Marine or Sailor is licensed, the use of a training bike may be a requirement in order to use the BRC to waive the state's testing or training requirement and get their motorcycle endorsement. An important note - these bikes are for training only and cannot be used for other recreational purposes.
- Cape Fox will no longer provide support to stand downs, create newsletters, posters or other promotional material. Although these services were helpful to most installations, the real focus is the delivery of training, so the Bridge contract does not include this other support.

- Class size is a concern in the Bridge Contract. Funding reductions do not allow us to sustain the same number of contract instructors as under the original contract. For classes requiring one instructor, the minimum number of students to hold most motorcycle classes went from 3 to 4 for Marine Corps installations. On Navy Installations it went from 4 to 6. However, when two instructors are required, the Marine Corps will conduct the class with as few as 7 students, while the Navy requires 11. This really means the units and Installation Safety Offices will need to communicate better to reduce "no-shows" and to schedule classes at a frequency that best matches the demand. For the Marine or Sailor who doesn't show up, their next opportunity for a class may not be for a few weeks rather than a few days. Once registered, a student is responsible for notifying the Installation Safety office and withdrawing from the class if their circumstances will prevent attending.

What will the next contract look like?

CNIC and CMC SD are striving to make improvements in order to sustain training and to make it more accessible under the next contract, especially for Marines and Sailors that are located away from major installations (like Recruiters and Reservists). The next contract will provide access to more advanced training, and is expected to provide greater flexibility for installations to add or customize services under the contract to better meet their local needs.

For questions about motorcycle training, contact your local Marine Corps Installation Safety Office.

Image courtesy of flickr.com/drocpsu.

