The Safety Corner

From Marine Corps Center for Lessons Learned

March 2010

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Marine Corps Center for Lessons Learned

Safety Corner

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Sleep Starved

Military Times

Too little sleep could be more dangerous than you may think. Slipping by on six hours of sleep? Don't. Military sleep experts say not getting a full eight hours can put you and your battle buddies at the same risk as having a few beers before driving a Bradley, shooting an Mk 19 grenade launcher or trying to determine whether a target is friend or foe.

And commanders who don't have plans to ensure their troops get eight hours of sleep are misusing resources and begging for trouble. "We are giving our troops the best uniforms, and weapons are a priority," said Nancy Wesensten, a sleep scientist at Walter Reed Army Medical Center in Washington, D.C. "But the one thing they really need for operational readiness is as much sleep as possible."

She says it's important to understand that:

- Sleep is a necessity.
- The culture that says it's weak to need eight hours of sleep must change.
- Commanders must develop sleep plans.
- Researchers don't yet fully understand the long-term effects of neglecting to sleep.
- Taking care of sleep problems, such as nightmares and insomnia, may be the first step toward addressing mental health issues that could come later.

REST FOR THE WICKED

In the old days, military training involved sending troops to the field for three days and expecting them to perform well with no sleep. "After three days, you'd collapse," said retired Army Col. Greg Belenky, director of the Sleep and Performance Research Center at Washington State University. "You wouldn't be good for anything."

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Do you have a safety story you'd like to share? We'd like to hear about it and inspire others.

Such exercises gave little consideration to what would happen in a sustained conflict that lasted, say, six years. That began to change when the military began longer pre-deployment training, such as the two weeks many units now spend at the National Training Center at Fort Irwin, Calif. Commanders came to realize that their troops were not performing up to standards, and sleep became as important as fuel, food and ammunition to a battle plan.

Anecdotally, researchers have found lack of sleep contributed to friendly fire incidents in the 1991 Persian Gulf War, as well as to a navigational error that led to the capture of Army PFC Jessica Lynch in Iraq in 2003. But as sleep scientists delved deeper into dreamland, they found those anecdotes were based in a nightmare: Just 24 hours without sleep impairs someone in the same way as a blood-alcohol content of 0.10, legally drunk in all 50 states.

An Oregon Health and Science University study found chronic sleep loss makes it impossible to think clearly, handle complex mental tasks, form memories and solve problems. And, according to the National Highway Traffic Safety Administration, sleepiness is the main cause of more than 100,000 vehicle accidents each year, resulting in 76,000 injuries and 1,500 deaths.

'SLEEP DEBT'

Wilfred Pigeon, a clinical researcher at the VA Center of Excellence at Canandaigua, N.Y., and director of the Sleep and Neurophysiology Research Lab at the University of Rochester, said research shows that getting two or three fewer hours of sleep for several nights causes a "sleep debt" that eventually has the same effect as not sleeping for 24 hours straight. And trying to catch up on the weekend isn't the answer; several full nights' rest is required to make up the debt.

Belenky said decreasing sleep by even one hour a night for several nights in a row is enough to affect performance. And forget the "four-hour rule" that says troops working in high-tempo operational environments can function on four hours of sleep. The reality is performance will be poor…..... At less than four hours, cognitive abilities continue to degrade. "Sleep is equal in importance to a healthy diet and exercise," Belenky said. "But I recommend sleep over exercise if you're not getting enough."

CULTURAL SHIFTS

Wesensten said military culture must change so that leaders realize troops need eight hours of sleep in every 24-hour period. "The older generation seems to think that if a person needs sleep, he's weak or unmotivated," she said. Most people need eight hours daily, she said, and commanders should plan for that. That can include naps as long as each person gets eight hours total in a day.

Belenky said the lab at Walter Reed Army Medical Center, where he worked until he retired, developed the Actograph, a device that tracks sleeping habits by measuring arm movements. He said this could be a good way for commanders to know who is fresh enough for duty, who is pulling too many shifts and who is staying up late playing video games. Commanders should manage sleep just as they do fuel, he said. Service members also should watch their own habits.

Retired Cmdr Beverly Dexter, a psychologist at Camp Pendleton, Calif., noticed while serving in Iraq that the biggest problem was troops staying up late to play video games. Not only should they be sleeping, but video games can be so stimulating that they prevent people from sleeping later, she said. She also saw troops stay up until 2 a.m. to wait for calls from home. "The person back in the States should be the one staying up late for a phone call," she said. She also suggests limiting calls to friendly conversations and saving the broken washing machine or the unpaid insurance bill for an e-mail so a phone call doesn't devolve into an argument. No one can sleep after a distressing phone call, she said.

(continued)

Sleep Starved (continued)

A good commander will look for those habits and limit Internet time or set up a schedule when people must be in bed. "If I ran into someone who actually did pay attention to sleep, I was delighted," Dexter said. "Instead, people say, 'Well, it's a combat zone.' You wouldn't say that if you ran out of food and fuel."

Kerry Kuehl, a co-author of the Oregon report, said there are long-term considerations, as well. "Sleep is when you repair your immune system and your cardiovascular system," he said. "Without sleep, it's harder to combat disease and illness." There is evidence that lack of sleep also may contribute to mental health problems, including post-traumatic stress disorder, Wesensten said. Not sleeping may mean that the brain doesn't get a chance to repair itself, which may increase vulnerability to stress or even post-concussive symptoms.

Wesensten said research has found that troops who get the least sleep also have the highest rates of mental health problems, though that may be because the high-operational tempo units are seeing the most trauma. Studies already have shown a link between lack of sleep and depression, a condition often connected to PTSD.

But Pigeon said sleeping problems might prove to be an inroad to addressing mental health issues. If a person has a hard time sleeping because he can't turn his mind off or because he fears nightmares, he should see a doctor. "We should jump on it," Pigeon said. "Left untreated, poor sleep seldom resolves on its own. And it's more acceptable to have a sleep problem than to have PTSD, so sleep is a perfect entrée for people to access services. Sleep could be a red flag that other things are coming, so it's a great place to intervene."

A doctor can recommend a short-term fix such as antihistamines to help a person sleep, but the drug's effectiveness will quickly dissipate as a person builds tolerance. Troops also can get over-the-counter or prescription sleep aids such as Ambien. Wesensten said the best plan is to find a good place to sleep; try to sleep at the same time every day; invest in earplugs and face masks and, for commanders, air conditioners; and use black-out paint on windows in sleeping rooms in combat zones. "Sleep whenever you can for as long as you can," she said.

GETTING SOME SHUT-EYE

- If you can't sleep, get out of bed. Don't condition your body into believing bed is for thinking.
- As a leader, keep good sleeping habits as an example for your troops.
- Don't oversleep; it can be hard to fall asleep the next night.
- Find an alarm clock that is not obnoxious out of respect for your battle buddies.
- If you have a nightmare, write down the dream, but change something in it. Then read it over a few times. Dream therapy can help establish sound sleeping habits. For info, visit no more nightmares

Effects of Lack Of Sleep

Sleep

Sleep deprivation, or a lack of sleep, causes several effects on a person's body and mental state. Recent scientific research regarding the effects of sleep deprivation have been conducted over recent years, mainly due to the increase in the frequency of individuals who don't get enough rest. A lack of sleep affects the health of the individual more than most people know, causing severe physical changes and mental issues that can be very dangerous to any person.

Physical Effects

Though no clear cut answer has been reached, more evidence is mounting towards the physical effects of sleep deprivation. The average adult person should have between 6.5 and 8 hours of sleep per night. This is the ideal number, and studies have shown that people who engage in this amount tend to lead longer lives. Those getting less than 6.5 hours or over 8 tend to die sooner. Sleep allows a person's body to heal after the day, allowing muscles and body functions to relax and heal after physical exertion. It also provides people the chance to rest their body to prepare for the next day of activity.

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Effect of Lack Of Sleep (continued)

A lack of sleep can lead to increased rates of heart disease, diabetes, cancer, and obesity. A lack of sleep also alters the body's chemistry. The endocrine system, the system of the body that regulates hormones, changes along with the amount of sleep a person gets. Someone who only gets about four hours of sleep a day may experience mood swings or a general change in their emotions do to the fluctuation of hormones. Other body systems can also be affected from a lack of sleep. These effects can include:

Blurred vision	Lack of Energy
Hallucinations	Poor Diet
High Blood Pressure	Lack of Physical Activity
Irritability	Weight Fluctuations
Shakes and Body Tremors	Lack of Concentration
Speaking Issues	Random Aches and Pains

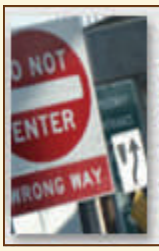
"Driver fatigue or falling asleep accounted for at least 65% of inside-the-vehicle distractions"
Virginia Commonwealth University Study

Along with all of these physical effects of sleep deprivation, lack of sleep can also stimulate the aging process in the body, causing it to age much faster than it should. Those who don't get the recommended amount of sleep may start to see wrinkles, poor posture, joint aches and pains, and a basic feeling of constant exhaustion.

Mental Effects

The mind can become fatigued during the day, and the mind needs time to rest just as much as the body. We do that when we sleep. The deeper parts of the mind tend to stay active, but the regular consciousness rests during periods of sleep, which is why you are more alert and focused when you have a good night of sleep. A lack of sleep can lead to some of the following mental issues.

Depression	Memory Loss
Inability to Focus	Lack of Attention
Irritability	Inability To Get Sleep
Forgetfulness	Inability to Relax



"Young drivers were 4 times more likely to have a sleep-related crash than were drivers over the age of 30."
NHTSA & NY State Study

Not getting enough sleep leads to further complications since they tend to become compounded. Just losing a few hours of sleep a night is the equivalent of drinking 2-3 alcoholic beverages. The mental deterioration experienced with sleep deprivation can make it dangerous to operate a motor vehicle, perform normal daily tasks, or can lead to communication issues, since thoughts lack focus.

Did You Know?

When inadequate sleep is combined with driving, the result can be fatal, not only for the driver, but anyone else on the road.

Got Energy Drink?

CDR Don Delorey

In today's high-op tempo, fast-paced world, energy drinks have become the trendy beverage of choice for many people, including many in naval aviation. Their popularity clearly is evident by a visit to any convenience store or Navy geedunk. You find rows and rows of flashy cans, sporting names like "Rock Star," "Monster" and "Spike." Many people have bought into the lively image and down them like sodas. Is this just another harmless fad, or are real health risks associated with energy drinks?

The term "energy drink" refers to a beverage that contains caffeine and other ingredients, such as taurine, guarana, and B vitamins, that claim to provide you with extra energy. However, an energy drink is a can of soda on "steroids." Both are carbonated beverages containing caffeine and sugar. The big difference is the typical energy drink contains a lot more of both ingredients.

For example, the average soda has 25 to 40 milligrams of caffeine, whereas most energy drinks have double that amount. One new energy drink advertises a whopping 280 milligrams of caffeine per can. When this much caffeine lingers in our system too long, insomnia may follow. Insomnia is a risk with any caffeinated beverage, but the risk is greater with energy boosters because of the massive amounts of caffeine.

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The main health risk associated with consuming these quantities of caffeine is its effect on heart rate and blood pressure. The caffeine content of a single serving of an energy drink (8 to 12 fluid ounces) can range from 72 to 150 mg; many bottles contain two to three servings, raising the caffeine content to as high as 294 mg per bottle (Table 1). In comparison, the caffeine content per serving of brewed coffee, tea, and cola beverages (8 fluid ounces) ranges from 134 to 240 mg, 48 to 175 mg, and 22 to 46 mg, respectively. Thus, with large doses of caffeine, the heart rate can become so accelerated it may lead to an irregular or quickened heart beat. This condition can last long after the initial effects of the drink, and for people with heart conditions, this can be very dangerous.

Table 1. Caffeine and sugar content of energy drinks.

Drink	Serving (fl oz)	Servings Per Container	Sugar Per Serving (g)	Caffeine Per Serving/ Container (mg)
Diet Rockstar Energy Drink	8	2	0	80/160
Full Throttle	8	2	29	72/144
Go Girl Sugar Free	12	1	0	150/150
Lo-Carb Monster XXL	8	3	3	80/240
Monster Energy Assault	8	2	27	80/160
Red Bull 8.3	8.3	1	0	80/80
Red Bull Sugar Free	8.3	1	0	80/80
Rockstar Energy Drink	8	2	30	80/160
Rockstar Juiced	8	2	21	80/160
Wired 294 Caffeine	8	2	26	147/294

Caution also is warranted for healthy adults who consume energy beverages; the consumption of two or more in a single day can lead to excessive caffeine intake.

A SYNERGISTIC EFFECT ALSO CAN OCCUR, as other stimulants, such as guarana and ginseng, often are added to energy beverages and can enhance the effects of caffeine. Guarana contains caffeine (1 g of guarana is nearly equal to 40 mg of caffeine) and may substantially increase the total caffeine in an energy drink. Adverse effects associated with caffeine consumption in amounts of 400 mg or more include nervousness, irritability, sleeplessness, increased urination, abnormal heart rhythms (arrhythmia), decreased bone density, and stomach upset.

There is limited evidence that consumption of energy drinks can significantly improve physical and mental performance, driving ability when tired, and decrease mental fatigue during long periods of concentration. Unfortunately, the literature is limited, and we don't know whether these improvements are because of the caffeine, other herbal ingredients, or are a result of the combination of the ingredients found in the beverage. Tables 2 and 3 present the energy drinks' claims and the scientific evidence regarding these claims.

Table 2. Energy drinks ingredients and claims.

Ingredient	Drink	Functional claims
Carnitine	Monster, Rockstar, Full Throttle	Improves endurance, increases fat metabolism, protects against cardiovascular disease
Glucuronlactone	Go Girl Sugar Free, Red Bull, Monster	Promotes excretion of toxins and protects against cancer
Guarana	Monster, Rockstar, Full Throttle	Increases energy, enhances physical performance, and promotes weight loss
Inositol	Go Girl Sugar Free, Red Bull, Monster, Rockstar, Wired B12 Rush	Decreaces triglyceride and cholesterol levels, lowering risk of cardiovascular disease

(continued)

Table 2. Energy drinks ingredients and claims.

Ingredient	Drink	Functional claims
Panax Ginseng	Monster, Rockstar	Speeds illness recovery; improves mental, physical, and sexual performance; controls blood glucose and lowers blood pressure
Super Citramax (hydroxy citric acid, garcinia cambogia extract)	Go Girl Sugar Free	Suppresses appetite, resulting in weight loss
Taurine	Go Girl Sugar Free, Red Bull, Monster, Rockstar, Full Throttle	Lowers risk of diabetes, epilepsy, and high blood pressure
Yohimbine	HCl VPX Redline	Improves sexual performance and promotes weight loss

Table 3. Scientific evidence to support these claims.

Ingredient	Scientific Evidence
carnitine	There is no clinical evidence that carnitine use is effective for increased endurance or weight loss, but it may protect against heart disease.
glucuronlactone	Scientific evidence does not exist to support claims regarding the efficacy of glucuronolactone.
guarana	A major component of guarana is caffeine. Caffeine consumption has been associated with increased energy, enhancement of physical performance, and suppressed appetite.
inositol	Scientific evidence does not exist to support claims regarding the efficacy of inositol.
panax ginseng	Scientific evidence does not exist to support claims regarding the efficacy of panax ginseng
super citramax (hydroxy citric acid, garcinia cambogia extract) .	There is scientific evidence that use of this supplement decreases food consumption
taurine	Clinical evidence is insufficient to show that taurine is effective in treating diabetes or epilepsy, but it may lower blood pressure.
yohimbine HCl	Although yohimbine HCl may increase blood flow to sexual organs, there is no evidence that it increases sexual arousal. It may be effective at treating erectile dysfunction. Currently no evidence exists to support the claim that use of this supplement leads to weight loss.

Bottom line, while in a flight status, energy drinks are not authorized. If you have any questions, contact your flight surgeon or aeromedical safety officer. Your flight surgeon will have specific recommendations on use of caffeine as a drug to maintain performance.

In a 1999 nationwide survey, 83% of adult Americans failed the NSF Sleep IQ Test. The average person gave fewer than 6 correct responses. Find out your sleep IQ score.

1. During sleep, your brain rests.
2. You cannot learn to function normally with one or two fewer hours of sleep a night than you need.
3. Boredom makes you feel sleepy, even if you have had enough sleep.
4. Resting in bed with your eyes closed cannot satisfy your body's need for sleep.
5. Snoring is not harmful as long as it doesn't disturb others or wake you up.
6. Everyone dreams every night.
7. The older you get, the fewer hours of sleep you need.
8. Most people don't know when they are sleepy.
9. Raising the volume of your radio will help you stay awake while driving.
10. Sleep disorders are mainly due to worry or psychological problems.
11. The human body never adjusts to night shift work.
12. Most sleep disorders go away even without treatment.

Answers on page 9

BRAVO Zulu

Left to right: Cpl M. Remmington, Capt W. Oles, Maj L. Brown, Cpl J. Ward
Photo by Capt A. Bankston

MV 22B Osprey Transport Aircraft crew EG-01, Maj Brown (TAC), Capt Oles (T2P), Cpl Ward (crew chief), and Cpl Remmington (aerial observer) were conducting vertical on-board delivery (VOD) to and from USS Bataan (LHD-5) in the Red Sea. During the 60-degree nacelle short takeoff (60 STO) and after VR from Aqaba King Hussein International Airport as Dash 3 in a light division, they had a shaft-driven-compressor failure (SDC FAIL).

Maj Brown continued the transition to airplane mode/climb out. He then announced the SDC FAIL and the need to land as soon as possible to the MV-22B crew in tactical lead on intraflight common frequency. Maj Hart was the section leader under training on the other aircraft, call sign EG-10. Maj Brown removed his oxygen mask because of the OBOGS failure associated with the SDC FAIL. Capt Oles raised the landing-gear handle, performed the after-takeoff checklist, and acknowledged the master alert for the SDC FAIL to the flight crew. Capt Oles switched the ECS emergency vent, and Cpl Ward reviewed the NATOPS procedure for the flight crew.

Maj Hart told control tower of Dash 3's malfunction. He maneuvered the division to enter a right-hand, 170-knot downwind for runway 01, while avoiding the 5,200-foot mountains to the east of the airport. On downwind for the runway, Maj Carl Forsling (division leader, call sign EG-07) announced to flight of three that lead and Dash 2 would extend off the 180-degree position to allow the Dash 3 to be cleared first to land. Maj Hart told control tower the first two MV-22Bs were extending, and the aircraft with the failure would be landing first. At the 180-degree position, Maj. Brown initiated the conversion to VTOL mode and, at 130 knots, called for gear down and the landing checklist. Capt. Oles completed the landing checklist and told control tower that EG-01 was abeam, with the landing gear down and locked.

Control tower cleared EG-01 to land, and the crew completed a 75-degree nacelle, 100-knot, roll-on landing (ROL) to runway 01. The crews of EG-01, 10, and 07 displayed strong CRM and disciplined flight leadership.

FOR CAC HOLDERS

Safety Of Use Alert For Loose Steering Components On Mine Resistant Ambush Protected All-Terrain Vehicles (M-ATV)

Safety Advisory For The High Mobility Multipurpose Wheeled Vehicle (HMMWV) M1123, M1151A1, M1152A1, M1165A1, and M1167

BRAVO Zulu

Left to right: LT A. Carlson, LT C. Pratt, LCDR T. Rodgers, LTJG J. Pinkerton

LTJG J. Pinkerton, a freshly minted EA-6B pilot, was returning to NAS Whidbey Island after his first flight with VAQ-140. The rest of the crew, LCDR Rodgers, LT Carlson, and LT Pratt, were getting "back in the saddle" flights after a postdeployment leave period. After the local training flight, the crew did a simulated single-engine approach for crew proficiency.

After the touch-and-go, LT Pratt noticed the drop tank on the left inboard wing station was canted up, indicating at least a partial failure of the bomb rack. He called the rest of the crew's attention to the issue. LCDR Rodgers coordinated with Whidbey tower to proceed to Smith Island (an uninhabited island in Puget Sound, eight miles west of the field) to troubleshoot.

Executing the NATOPS damaged-aircraft checklist, LTJG Pinkerton reported the aircraft was controllable in the landing configuration at the appropriate approach speed. As they discussed an emergency explicitly not addressed in NATOPS, the crew decided that because they couldn't be sure the drop tank would not hit the aircraft or adjacent jamming pod, they would retain the store. They also decided an arrested landing might be too violent and pose a risk of further damage.

LTJG Pinkerton made a precautionary straight-in approach to runway 14, landing with a minimum rate of descent. The aircraft was met by emergency and squadron maintenance personnel, who safed the stores and pinned the gear before shutdown. The aft-suspension hook of the AERO-7 bomb rack had failed to open, causing the empty drop tank to partly separate from the aircraft, pivoting on the forward suspension hook. The drop tank had only superficial damage, and the bomb rack's forward suspension hook was marred. The aircraft and the adjacent ALQ-99 jamming pod had no damage.

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M-CASS — Climate Assessment Survey System
OR Matrix
PMV Investigation
Best Practices
Motorcycle Census
Did You Know
8 Eight Day Report
Quiz
Fatigue
WESS — Online Reporting
Semper Ride

Sleep IQ Answers

1. **False.** While your body rests, your brain doesn't. An active brain during sleep prepares us for alertness and peak functioning the next day.

2. **True.** Sleep need is biological. While children need more sleep than adults, how much sleep any individual needs is genetically determined. Most adults need eight hours of sleep to function at their best. How to determine what you need? Sleep until you wake on your own...without an alarm clock. Feel rested? That's your sleep need. You can teach yourself to sleep less, but not to need less sleep.

3. **False.** When people are active, they usually don't feel sleepy. When they take a break from activity, or feel bored, they may notice that they are sleepy. However, what causes sleepiness most is sleep loss: not getting the sleep you need. Adults who don't get enough good sleep feel sleepy when they're bored. Boredom, like a warm or dark room, doesn't cause sleepiness, it merely unmasks it.

4. **True.** Sleep is as necessary to health as food and water, and rest is no substitute for sleep. As noted above, sleep is an active process needed for health and alertness. When you don't get the sleep you need, your body builds up a sleep debt. Sooner or later, this debt must be paid...with sleep. If you drive when you're sleepy, you place yourself and others at risk because drowsy drivers can fall asleep at the wheel with little or no warning. Sleepiness contributes to driver inattention, which is related to one million crashes each year!

5. **False.** Snoring may indicate the presence of a life-threatening sleep disorder called sleep apnea. People with sleep apnea snore loudly and arouse repeatedly during the night, gasping for breath. These repeated awakenings lead to severe daytime sleepiness, which raises the risk for accidents and heart problems. Yet 95% of those with sleep apnea remain unaware that they have a serious disorder. The good news: With treatment, patients can improve their sleep and alertness, and reduce their risk for accidents and health problems. Physicians and sleep specialists should be consulted. Breathe easier, with info on sleep apnea.

6. **True.** Though many people fail to remember their dreams, dreaming does occur for every person, every night. Dreams are most vivid during REM or rapid eye movement sleep.

7. **False.** Sleep need remains unchanged throughout adulthood. Older people may wake more frequently through the night and may sleep less, but their sleep need is no less than during young adulthood. When older people sleep less at night, they tend to sleep more during the day. Sleep difficulties are not a normal part of aging, although they are all too common. If poor sleep habits, pain or health conditions make sleeping difficult, a physician can help.

8. **True.** Most people don't know when they're sleepy. Researchers have asked thousands of people over the years if they're sleepy, only to be told no...just before the individuals fell asleep! What does this mean? Many people don't know if they are sleepy, when they are sleepy, or why they are sleepy. When driving, don't think you can tough it out if you're sleepy but only a few miles from your destination. If you're sleepy enough, you can fall asleep...anywhere.

9. **False.** If you're having trouble staying awake while driving, the only short-term solution is to pull over at a safe place and take a short nap or have a caffeinated drink. Doing both - for example, drinking coffee, then napping before the caffeine kicks in - may be even better. However, the only long-term solution is prevention...starting out well rested after a good night's sleep. Research shows that loud radios, like chewing gum and open windows, fail to keep sleepy drivers alert.

10. **False.** Stress is the number one reason people report insomnia (difficulty falling or staying asleep). However, stress accounts for only a fraction of the people who suffer either chronic insomnia or difficulty staying alert during the day. Sleep disorders have a variety of causes. Sleep apnea, for example, is caused by an obstruction of the airway during sleep. Narcolepsy, which is characterized by severe daytime sleepiness and sudden sleep attacks, appears to be genetic. No one knows yet what causes restless legs syndrome, in which creepy, crawly feelings arise in the legs and are relieved, momentarily, by motion.

11. **True.** All living things (people, animals, even plants) have a circadian or about 24-hour rhythm. This affects when we feel sleepy and alert. Light and dark cycles set these circadian rhythms. When you travel across time zones, your circadian rhythm adjusts when the light and dark cycle changes. For shift workers, the light and dark cycle doesn't change. Therefore, a shift worker's circadian rhythm never adjusts. Whether you work the night shift or not, you are most likely to feel sleepy between midnight and six a.m. And no matter how many years one works a night shift, sleeping during the day remains difficult. Shift workers should avoid caffeine during the last half of their workdays, block out noise and light at bedtime, and stay away from alcohol and alerting activities before going to sleep.

12. **False.** Unfortunately, many people who suffer from sleep disorders don't realize that they have a disorder or that it can be treated. But sleep disorders don't disappear without treatment. Treatment may be behavioral (for example, going to sleep and waking at the same time every day, scheduling naps or losing weight), pharmacological (involving medication), surgical or a combination. Untreated sleep disorders may have serious negative effects, worsening quality of life, school and work performance, and relationships. Worse, untreated sleep disorders may lead to accidents and death.

USMC AVIATION CLASS A MISHAPS (includes AGMs not included in the Flight Slide)
29 Oct 09 (California) AH-1W crashed into water after midair collision. (2 Fatalities)
26 Oct 09 (Afghanistan) AH-1 and UH-1 crashed in open desert. (4 Fatalities)

USMC GROUND CLASS A
22 Dec 09 (Afghanistan) LCpl died while performing maintenance on a M88 when hoist chain broke causing vehicle to fall.
03 Dec 09 (Camp Pendleton, CA) Cpl died when parachute failed to open while conducting low level static line jump.

USMC OPERATIONAL MOTOR VEHICLE
04 Nov 09 (Camp Pendleton, CA) LCpl died in automobile mishap when his POV was hit by HMMWV.

USMC PRIVATE MOTOR VEHICLE FATALITIES
27 Feb 10 (Kapolei, HI) E-5 died in a motorcycle mishap when he collided with the vehicle in front of him.
05 Jan 10 (Camp Lejeune, NC) PFC died in a single vehicle mishap.
27 Dec 09 (Westport, CT) SVM was passenger in auto that lost control/struck tree.
18 Dec 09 (San Diego, CA) Cpl died after being struck by an automobile in a hit and run mishap.
08 Dec 09 (Kailua, HI) Sgt died in a motorcycle mishap.
26 Nov 09 (Morongo Valley, CA) LCpl died when the vehicle in which he was a passenger overturned several times. Two other SVMs were hospitalized.
14 Nov 09 (New Brunswick, NJ) SSgt died 23 Nov 2009 from injuries sustained as a passenger in an automobile mishap.
06 Nov 09 (San Diego, CA) Sgt died in a motorcycle mishap when he collided with another vehicle.
27 Oct 09 (New Bern, NC) PFC died 03 Nov from injuries sustained in automobile mishap when vehicle rolled and struck a tree.
17 Oct 09 (Murrieta, CA) SSgt died in a motorcycle mishap when he collided with a vehicle that pulled out into his lane of travel.
13 Oct 09 (Santa Clara, CA) Sgt died in a multiple vehicle mishap.
09 Oct 09 (Escondido, CA) LCpl was in a minor two vehicle mishap and was being treated by emergency medical personnel at the scene when he was struck and killed by a third vehicle.
01 Oct 09 (New Bern, NC) PFC died in an automobile mishap after he struck the back of a school bus that was stopped at a railroad crossing.

USMC OFF-DUTY/RECREATIONAL FATALITIES
24 Dec 09 (Monroe, NY) Marine vomited in his sleep, did not wake up and died of asphyxiation.
09 Dec 09 (Albuquerque, NM) PFC was found deceased in private residence.
06 Dec 09 (Havelock, NC) Cpl died from a gunshot wound to the chest.

USN AVIATION CLASS A MISHAPS (includes FRMs and AGMs not included in the Flight Slide)
28 Oct 09 (Corpus Christi, TX) T-34C did not return from VFR training flight. (2 Fatalities)

USN AFLOAT CLASS A MISHAPS
19 Feb 10 CPO electrocuted working in auxiliaries room.
16 Feb 10 (Key West, FL) PO2 died while conducting a training dive evolution.
28 Nov 09 PO1 reconnecting piping interface in AUX 2 touched 440VAC panel.

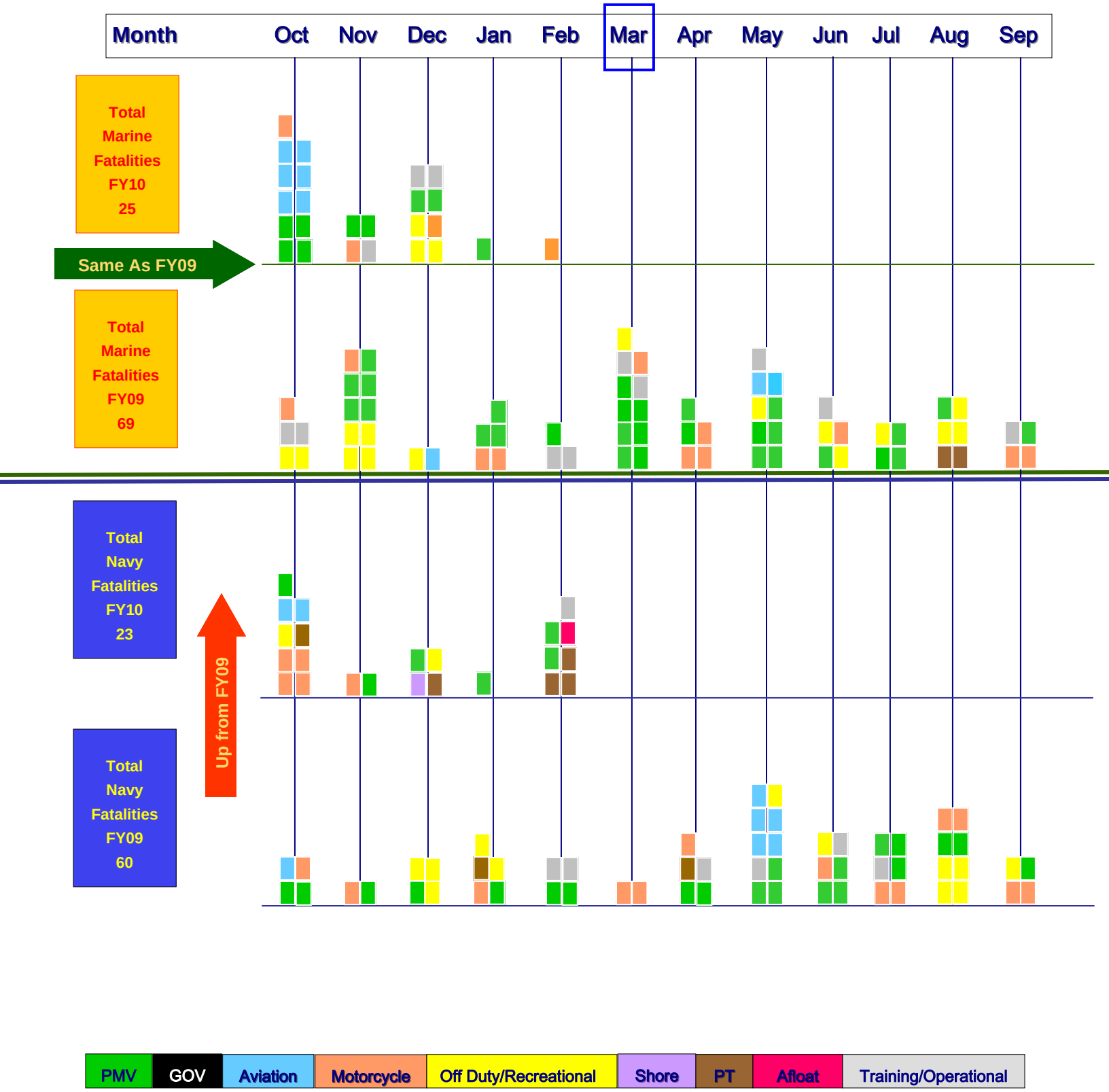
USN SHORE CLASS A MISHAPS
03 Dec 09 (Portsmouth, VA) Civilian employee died after falling from roof of building.

USN PHYSICAL TRAINING CLASS A MISHAPS
19 Feb 10 (Port Hueneme, CA) PO2 died during PT run.
16 Feb 10 (Kuwait) PO1 died following a PT run.
09 Feb 10 (Ventura Country, CA) MCPO found dead in barracks after morning PT.
05 Dec 09 PO3 died after fall from treadmill.
14 Oct 09 (Norfolk, VA) PO1 died while participating in command departmental PT.

USN PRIVATE MOTOR VEHICLE FATALITIES
20 Feb 10 (Snoqualmie, WA) PO2 died after head-on collision with another vehicle.
11 Feb 10 (Washington, MO) PO1 died in a single vehicle mishap when automobile overturned and SVM was ejected.
03 Jan 10 (Chicago, IL) Seaman died in automobile mishap.
26 Dec 09 (Fresno County, CA) SVM S-bound on interstate in heavy rain, lost control of auto.
28 Nov 09 (James City County, VA) SA died in an automobile mishap. Two other SVMs sustained non life-threatening injuries.
14 Nov 09 (Pensacola, FL) MCPO died in a motorcycle mishap when he was struck head-on by a drunk driver.
16 Oct 09 (San Diego, CA) CDR died 25 days after being hit by a truck while riding his bicycle.
13 Oct 09 (Chesapeake, VA) PO2 died in a motorcycle mishap. PO2 on second motorcycle is in critical condition.
11 Oct 09 (Oahu, HI) PO2 died in a motorcycle mishap when he lost control and collided with oncoming traffic.
05 Oct 09 (Holden, MA) PO3 died in a single motorcycle mishap when he struck a tree.
01 Oct 09 (Chocowintiny, NC) PO2 died in a motorcycle mishap when he lost control and then struck an oncoming vehicle.

USN OFF-DUTY/RECREATIONAL FATALITIES
09 Dec 09 (Norfolk, VA) PO3 died in an off-duty ATV mishap.
12 Oct 09 (Wahiawa, HI) PO2 died in a recreational parachuting mishap when his primary and reserve parachutes failed to open.

Fatality Summary as of March FY10



Note: This report has been compiled from publicly available information and is not official USMC policy. Although information has been gathered from reliable sources the currency and completeness of the information reported herein is subject to change and cannot be guaranteed.