



# NAVAL SAFETY COMMAND

## SAFETY AWARENESS DISPATCH



SA 23-24

### *Fatigue*

Four major surface ship mishaps in the Western Pacific in 2017 were rooted in fatigue or ineffective fatigue management. Two of those mishaps (USS JOHN S. MCCAIN and USS FITZGERALD collisions) resulted in the tragic loss of 17 Sailors. Following a comprehensive review of those mishaps, Commander, Naval Surface Force Pacific (SURFPAC) and Commander, Naval Surface Force Atlantic (SURFLANT) released a comprehensive Endurance and Fatigue Management Program instruction (updated again in 2020). According to a 2020 Government Accountability Office survey, only 14 percent of officers received the recommended seven hours or more of sleep per day, while **67 percent received five hours or less**, showing that there is more work to do. Our Sailors aren't alone in the sleep deprivation realm either. A 2018 Department of Defense Health Related Behaviors survey found that nearly one-third of military service members reported a lack of energy because of poor sleep. The examples from our database may seem very familiar. If they do, that should be a red flag. Please have a read and consider your habits and practices that may contribute to fatigue on and off duty.



- It Was Only a Matter of Time. At approximately 0430, while pulling arresting gear wire from below the flight deck with a tractor, a Sailor made several passes close to an aircraft on deck. After three or four successful passes, the tractor impacted and damaged the aft portion of the aircraft's stabilator. The report noted that the culmination of changes in the maintainers' work schedule from night to day shifts and pressure to complete maintenance under a compressed timeline, coupled with fatigue and inadequate supervision, contributed to the mishap. The maintainers also worked 18 hours the previous day before the transition from night to day shifts and were not allowed to acclimate to a new circadian sleep rhythm. —*We owe it to our people to allow them adequate time for schedule change adjustments and crew rest. If you feel pressured to complete the work, communicate that to your supervisor. Supervisors – Listen!*
- Obviously, Not a Self-Driving Car. At approximately 1300, A Sailor was driving home from work. The Sailor passed out as he approached an intersection and struck another vehicle in the rear bumper, pushing it into another vehicle. Injuries were minor. The Sailor reported rubbing his eyes before the mishap and feeling exhausted from not sleeping well lately. —*According to the National Transportation Safety Board, each hour of sleep less than 6 doubles your chance of a car accident. According to the National Institute of Health, not getting regular quality sleep raises the risk of many diseases and disorders ranging from heart disease and stroke to obesity and dementia. If you're having trouble getting quality sleep, seek help.*
- Mama Always Said Never Skip Breakfast. Before an Underway Replenishment (UNREP), a Sailor stood the 0000-0300 watch and was notified approximately 20 minutes before setting the UNREP detail (at 0800) that he would be one of the line handlers. He did not drink water or eat breakfast before stationing the UNREP detail. When the Sailor assumed his position on the line, he developed a headache. He eventually felt as if he could not breathe and stepped away. The line captain noticed the Sailor struggling to breathe and helped him to the corpsman. Along the way, the Sailor passed out. Stretcher-bearers took the Sailor to medical, where he was treated for dehydration. —*This mishap resulted from not hydrating, insufficient sleep duration and not eating. Whether self-imposed or dictated by daily schedule, this mishap was avoidable. Supervisors, ensure your people have adequate time for rest and to eat. For the rest of us, use your rest time wisely, e.g., not playing Mario Kart\* for three hours after watch.*



\* The video game reference is an attempt at humor and does not constitute an endorsement of any consumer product. ☺

## Fatigue

- **Get Some Sleep or Lose a Digit.** A Sailor was running a wooden board through an electric joiner. As he pulled the board through with his left hand, he used a safety block in his right hand to guide and push the board through. As the Sailor pushed the board, the joiner bit caught the tip of his finger, severely lacerating it, causing permanent partial loss of mobility. The Sailor stood watch the morning of the incident from 0200-0700 and had not slept for more than 24 hours before the mishap. —*This Sailor might as well have been intoxicated while operating the electric joiner. According to the Centers for Disease Control and Prevention, being awake for 24 hours is similar to having a blood alcohol content of .10%, over the drunk driving limit of .08%. We hope this example drives home the point that you don't need to cut your finger off to appreciate the value of a proper night's sleep. You would not take the watch drunk – don't take it when you are fatigued!*
- **You Said Fire, Right?** A Marine was a member of a mortar squad during live fire training. Upon hearing the command to “fire,” the mortar squad realized they needed more ammunition. By the time they had the ammunition prepared and hung (half-loaded), the window to fire passed. When the fire direction center chief instructed the mortar squad, “do not fire,” the Marine heard “fire” and dropped the round into the mortar tube. He delayed withdrawing his hand from the weapon’s opening and, when the mortar fired, sustained a broken forearm and lacerations to his hand, requiring surgery and weeks of physical therapy. The report noted that the Marine slept only 10 hours in the 72 hours before the live fire and only 2 hours in the 24 hours preceding the mishap. —*According to the Sleep Foundation, reaction times increase with lack of sleep. Slow reflexes and mortars should not be used in the same sentence. Make sure you and your team are adequately rested before high-risk training – or any evolution, for that matter.*

### Key Takeaways

1. **Sleep deprivation is not a badge of honor.** The days of touting your total hours on duty without sleep as a part of a military “can do” culture should be over. The SURFPAC/SURFLANT instruction (noted below) states, “Sleep should be viewed as being as critical as any logistical item of resupply, like water, food, fuel, and ammunition.” The Navy recognized that a critical tenet of crew endurance is getting quality sleep through a circadian sleep cycle (sleeping at the same time each day) that protects sleep periods. It even authorizes naps when the pace of operation permits! The instruction also offers guidance and best practices for achieving quality sleep, including eating for performance, caffeine management, sleep hygiene and more.
2. **Take care of yourself and each other.** Know the signs of sleep deprivation, such as lapses in attention, slowed reaction times, dozing off, lost motivation and irritability (*beyond their typical character*). Consider your daily habits both on and off duty. If you're perpetually drinking coffee or energy drinks or eating high-fat food before sleep periods, you should curb them a few hours beforehand. We're not saying switch to decaf green tea or start a fad diet (*we're not that crazy*), but to manage caffeine, diet and brain-stimulating activities for optimal sleep performance. Add some regular exercise and you'll be well on your way to quality sleep. Leaders at all levels should allow time for physical training. Sometimes, operations preclude your PT or sleep time, but those occasions should not become the norm. Leadership can make it work, and they have.
3. **Embrace crew endurance and fatigue management.** We've only touched on a few ways individuals and units can achieve optimum crew endurance. Crew endurance takes commitment from the command leadership to the individual to succeed, and it's working in many units. Not on a ship? Check out the references because many guidelines and best practices can apply to any organization. Crew endurance management is not just about watch schedules, it's ultimately about elevating and maintaining combat readiness and resilience.

### References

- COMNAVSURFPAC/COMNAVSURFLANT Instruction 3120.2A Comprehensive Crew Endurance Management Policy
- Naval Postgraduate School Crew Endurance Handbook 2.0. <https://nps.edu/web/crewendurance>

**And remember, “Let's be careful out there”**