



UNITED STATES MARINE CORPS

MARINE MEDIUM HELICOPTER SQUADRON 268
MARINE AIRCRAFT GROUP 29 (REIN)
2D MARINE AIRCRAFT WING (FWD)
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IN REPLY REFER TO:
3750
DOSS
7 Nov 07

From: Commanding Officer
To: All Hands

Subj: COMBAT FATIGUE SAFETY CAMPAIGN PLAN

Ref: (a) An Overview of the Scientific Literature Concerning Fatigue, Sleep and Circadian Cycle by the Battelle Memorial Institute, Jan 1998
(b) Memorandum from the Secretary of Defense regarding Reducing Preventable Accidents

Encl: (1) Overview of the Scientific Literature Concerning Fatigue
(2) Squadron Policy Letter 06-07
(3) Fatigue and Stress Brief by HMM-268 Aviation Safety Officer
(4) Campaign poster examples
(5) Maximum 30 Day Recommended Flight Time Waiver

1. Situation. Fatigue is an insidious threat to the safety and effectiveness of our daily operations. The basic causes of fatigue are insufficient sleep, disruptions to the body's clock, and extended duty periods. Fatigue is one of the hardest terms to define. According to the reference, a number of symptoms indicate the presence of fatigue including the following: increased anxiety, decreased short term memory, slowed reaction time, decreased work efficiency, reduced motivational drive, decreased vigilance and frequent errors of omission. Many of these symptoms appear only after substantial levels of sleep deprivation have been imposed. Fatigue levels likely to be experienced by personnel suggest that a common fatigue symptom is a change in the level of risk an individual will tolerate. The challenge is recognizing what is causing fatigue and if it is serious enough to alter an individual's risk tolerance. The Marine Corps relies upon 24/7 operations to an unprecedented degree. Since 1990, there has been an overall 37.7 percent reduction in military personnel while deployments have increased by as much as 400 percent. Unfortunately, while Marine Corps equipment is well suited to such continuous and sustained operations, the performance capabilities of military personnel are not. This increases the dangers of fatigue in the tactical environment. People lose approximately 25 percent of their cognitive capacity (i.e. hazard recognition) with each 24 hours of sleep loss (see Enclosure 1). Just 18 to 21 continuous hours without sleep leads to performance impairments like those seen with blood alcohol concentrations of 0.05 to 0.08 percent. The effects of fatigue are one of the most dangerous physical and mental conditions to experience while deployed. When fatigue sets in, simple tasks become complex, sound judgments can be compromised, and mistakes are made. Fatigue is cited as being only second to spatial disorientation as a causal factor in mishaps. Fatigue is a blue threat that is identifiable and preventable. It is unacceptable to lose aircraft, equipment, and/or personnel when the causal factor could have been avoided.

2. Mission. The Secretary of Defense has noted that "Too often we excuse mishaps by citing the difficult circumstances in which we operate. We have trained our Marines and Sailors to operate in very trying conditions. There is no excuse for losing lives and aircraft given proper planning, attention

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to detail, and the active involvement of the Chain of Command." The overall objective of this policy is the mitigation of fatigue through applied individual and collective efforts, thereby preserving our valuable assets and priceless Marines and Sailors. Ultimately, I am responsible for the welfare of the Marines and Sailors in my charge. We will increase the squadron's mission readiness by proactively working to mitigate the effects of acute and cumulative fatigue and therefore reduce and prevent the incidence of ground and aviation mishaps. My first step in mitigating and reducing the effects of fatigue was publishing Squadron Policy Letter 06-07 regarding the scheduling of squadron personnel (Enclosure 2). I am mandating that transition days are days off wherein personnel are exempt from squadron functions. Use this time as it is meant to be used, in adjusting your circadian rhythm to the new shift. This safety campaign will establish tasks not only for each shop, but rules by which every Marine and Sailor is to abide by. **Remember that you are not always the best judge of your own fatigue.**

3. Execution. Accountability is essential to effective leadership. I expect all of the Squadron's leaders, from the Officers down to the most junior Marines and Sailors, to be accountable for mishaps under their watch. This plan introduces the "Combat Fatigue" Safety Campaign as a mindset and a way of life for all of the Marines and Sailors of Marine Medium Helicopter Squadron 268 (HMM-268). The specified tasks are as follows:

a. Safety Department

(1) The Safety Department shall develop, coordinate and conduct all aspects of the "Combat Fatigue" Safety Campaign.

(2) The Safety Department will work closely with the Operations Department to ensure aircrews are being afforded a non scheduled/not tasked day every ten consecutive days as per Enclosure (2).

(3) The ASO shall coordinate with the Flight Surgeon to disseminate information regarding stress and fatigue to all squadron personnel in the form of all hands periods of instruction. This information shall include the signs and symptoms of fatigue, sleep facts, and how to mitigate the effects of stress and fatigue (Enclosure 3). Additionally, the safety department shall prepare and give classes on fatigue and stress to all personnel.

(4) The ASO shall procure safety posters focusing on "Combating Fatigue" and will place them throughout the squadron (Enclosure 4).

(5) The Ground Safety Officer (GSO) shall integrate this safety campaign into the monthly Enlisted Safety Council and Ground Safety meetings. Additionally, the GSO will assist in the production of "Combat Fatigue" Safety Campaign posters and will periodically provide updates to address current trends or concerns.

b. Medical Department

(1) Identify all aircrew who are due for an excessive flight hour waiver based on the Hogboard. Evaluate each member as they approach the 60, 80, and 100 hour benchmarks in order to identify factors that may adversely affect restfulness and flight performance, including sleep, nutrition and stress level. Provide the Operations Department with a list each day of aircrew who have completed their waivers. Inform the Commanding Officer and the Operations Department of any members who are demonstrating signs of acute or cumulative fatigue that would pose a risk to safety of flight. Provide a 100 Flight Hour Waiver to the Commanding Officer for each member that exceeds

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100 hours in a 30 day period and who has been found fit to continue flying (Enclosure 5). Provide recommendations for those that are not fit to exceed the maximum recommended hours. Provide similar evaluations and waivers for aircrew that exceed 265 hours in a 90 day period or 500 hours in a 180 day period.

(2) The Flight Surgeon shall coordinate with the ASO to disseminate information regarding stress and fatigue to all squadron personnel. This information shall include the signs and symptoms of fatigue, sleep facts, and how to mitigate the effects of stress and fatigue (Enclosure 3).

(3) The Flight Surgeon will monitor all Marines and Sailors for both acute and cumulative fatigue. If recognized, a medical evaluation of that Marine or Sailor shall be conducted, and his or her chain of command will be informed.

c. Operations Department

(1) Operations shall monitor and track aircrew flight hours and ensure all aircrew receive a non scheduled event every seven days while on the night shift and a non scheduled event every ten days while on the day shift. Two consecutive non tasked events may take the place of a non scheduled event. Not scheduled crews are indicated in the Day/Night Crew Not Scheduled column on the daily flight schedule. Not tasked crews are not assigned specific tasking as per the 24-hour Air Tasking Order (ATO). Not tasked aircrews are required to attend their scheduled brief; however, they are on a 120-minute alert status.

(2) Operations shall coordinate with the Safety Department and the Flight Surgeon to monitor aircrew hours. The daily flight schedule will indicate which aircrew need to see the Flight Surgeon for their 60, 80 and 100 flight hour medical screenings.

(3) To the maximum extent possible, classes, meetings, formations and non-mission briefs shall be scheduled to occur once during each shift to prevent one shift from having to stay late or arrive earlier than their normal shift dictates. If it is essential that a class, meeting, formation or non-flight brief occur only once (i.e. Department Head meeting), the event shall be scheduled at 0600 or 1800. The Operations Department shall identify personnel required to attend the class, meeting, formation or non-mission brief (i.e. All Hands, All Pilots, All Available, etc.).

(4) The Operations Department shall utilize augment pilots to the maximum extent possible in order to facilitate the intent of Enclosure 2.

(5) Develop an aircrew flight hour tracker to monitor weekly totals for 30, 90 and 180 day periods in weekly increments. This tracker will list all aircrew and show their running weekly totals. The tracker will enable Operations to ensure individual aircrew do not exceed the OPNAVINST 3710.7T recommended maximum flight hours in 7, 14, and 30 day periods.

d. Maintenance Department

(1) Division OIC's and SNCOIC's shall ensure every maintainer is afforded a day off at the completion of nine consecutive work days.

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e. Logistics Department

(1) The Logistics Department shall continue to coordinate with the Dining Facility to provide fresh fruit and vegetables with every meal.

(2) Coordinate with the HMLA squadron co-use of the Crew Rest SWAHUT for HMM-268 personnel.

(3) Provide Crew Rest/Crew Day signs to be posted throughout the LSA area.

f. S-5 Department. Continue to upgrade the MWR facilities and encourage the Marines and Sailors to utilize them.

g. All Aircrew

(1) All aircrew shall manage their crew day/crew rest/work day and inform the Operations Department of any scheduling conflicts.

(2) Conduct a thorough review of the Risk Assessment Worksheet (RAW).

h. All Hands

(1) Monitor the Marines within your section for signs and symptoms of fatigue and ensure that each Marine or Sailor receives adequate rest time. Shop heads shall monitor every Marine in their charge and ensure all Marines receive a non scheduled or not tasked day every ten consecutive days. Do not allow Marines and Sailors to perform maintenance on aircraft or operate machinery when they are fatigued. If a Marine is identified as being fatigued, reduce their tasking accordingly and direct them to the Flight Surgeon, if required.

(2) Power naps are highly encouraged. Utilize the crew rest tent located between the HMM and HMLA squadron spaces. In September's Aviation Safety Council (ASC) meeting minutes, the Commanding Officer concurred with the ASC's recommendation for rest periods throughout the work day. The Commanding Officer wrote, "Rest breaks are paramount. Even as little as 5-10 minutes of shut-eye will help combat fatigue."

(3) All Marines and Sailors will abide by a **14 hour crew day/work day**. Your crew day/work day begins when you enter the squadron spaces and ends when you leave the squadron spaces.

(4) All Marines and Sailors shall abide by a **10 hour crew rest period**. A 10 hour crew rest policy will allow personnel to transit to and from work with enough time to allow for 8 hours of sleep. Rest periods do not provide the same levels of physical and mental recovery as sleep. Crew rest begins when you leave the squadron spaces and ends when you arrive at the squadron spaces. There is a generally consistent body of research which demonstrates that most people require an average of 8 hours of sleep per night in order to achieve normal levels of alertness without drowsiness and to avoid the accumulation of sleep debt.

(5) It is recommended that all personnel partake in physical training (PT) 2-3 times a week for at least 30 minutes. Walking or riding a bicycle to and from work does not count as PT.

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(6) All Marines and Sailors shall honor crew rest while at the LSA. No shouting (elevated voices), loud music, or loud television is permitted at anytime within the LSA area. If you can hear a television or music coming from inside a can, then the music or television is too loud. The Duty NCO shall enforce this rule.

(7) All personnel shall consume 4-5 bottles of water daily. This intake will combat the fatiguing effects of dehydration. Personnel are encouraged to monitor their caloric intake by eating a minimum of three balanced meals daily. Skipping meals will result in an increased chance of fatigue. Additionally, when dining at the squadron spaces, eat your meal inside the Flight Line Chow Hall. This will allow a break from work and prevent you from eating your meal while continuing to work.

(8) Transition days are dedicated days off. All personnel transitioning are exempt from squadron functions to include formations. Furthermore, it is not recommended to stay up and "burn through" your transition day in order to adjust to the upcoming shift. Reduced sleep, when accompanied by an existing sleep debt, diminishes performance and the ability of the individual to maintain alertness throughout the duty period. Recovery from sleep deprivation often requires 2 nights of rest.

4. Coordinating Instructions. The overall objective of this campaign is the mitigation of both acute and cumulative fatigue through applied individual and collective efforts to combat them, thereby preserving our valuable assets and priceless Marines and Sailors. The points of contact for this campaign are the HMM-268 Director of Safety and Standardization, Flight Surgeon and Aviation Safety Officer.


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