

# **Sleep Deprivation and Military Operations**

## **Part 2– Coping With Sleep Deprivation on Operations**

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In the first part of this article we looked at the causes of sleep deprivation and the effect that acute and chronic sleep deprivation has on military personnel.

In the conclusion of this two part series we'll look at what can be done at both an individual and unit level to counter the effects of sleep deprivation.

### **Overview**

The steps taken to manage sleep loss revolve around an effective activity/sleep plan and using appropriate techniques to detect and compensate for sleep loss.

This article will cover the detection of sleep deprivation, measures that individuals can take and guidance for commanders on how to manage sleep deprivation in their personnel.

### **Detecting Sleep Deprivation**

Since everyone is affected differently by sleep deprivation it is important for individuals and commanders to recognise the signs and symptoms of fatigue which signal that personnel are about to become combat ineffective.

Once a number of these signs become obvious in personnel it is important that commanders give serious thought as to how they are going to deal with the problem so that the situation doesn't reach a critical point.

#### **Physical Signs**

- Vacant stare and bloodshot eyes
- Blurry vision
- Slurred/slow speech
- Slowed responsiveness
- Headaches
- Loss of strength, stiffness and cramps
- Unstable posture, swaying
- Faintness and dizziness
- Difficulty in performing fine movements.

#### **Behavioural Signs**

- Neglect of routine tasks
- Poor work output
- Lack of motivation and morale
- Poor communication
- Poor judgement and confusion
- Irritability and moodiness
- Day dreaming

An important point to note is that the signs and symptoms of sleep deprivation are often not apparent to the sufferer and they may believe that they are unimpaired even when their performance is seriously degraded.

Therefore it is important for commanders and peers to monitor the condition of those around them and give feedback when signs of sleep deprivation are detected.

### **Individual Measures**

In an operational environment individuals may have little control over their work and sleep patterns and there may be very little they can do to deal with the effects of sleep loss.

However there are some steps that individuals can take to reduce the effects of sleep deprivation.

The most effective way to improve performance in an environment where sleep is scarce is to take any opportunity to nap. Even a 20 minute nap can have a significant positive effect on performance.

Along with napping another way to improve performance is to ensure that any periods of sleep, no matter how short, are of the highest possible quality. Some steps which can be taken to improve the quality of sleep include.

- Avoiding excessive use of nicotine and caffeine before sleep
- Minimize alcohol use
- Eat carbohydrates before sleep and protein after waking
- Prepare for sleep to avoid disturbances such as going to the toilet.
- Get as comfortable as possible before sleeping.

Other measure that individuals can take include

- Ensuring a high level of personal fitness
- Having a high level of personal skills so that actions occur instinctively
- Taking note during training exercises of their reactions to fatigue

## **Guidance for Unit Commanders**

As they control the planning of operations the major responsibility for managing sleep deprivation in military personnel falls on commanders from generals, down to squad leaders.

Commanders can ensure the best performance from their troops with a two stage approach to managing fatigue. The first stage occurs before personnel are deployed on operations and the second stage is the management of sleep as a logistical factor in ongoing operations.

### **Pre Deployment**

In pre deployment training commanders should take steps to ensure that their personnel are prepared for sleep loss on operations.

Some of the things that can be done to prepare soldiers for sleep deprivation include

***Exposing troops to sleep deprivation in a training environment*** – This helps both commanders and troops understand how sleep deprivation affects performance. By getting experience in a relatively safe environment commanders can identify and address many of the problems of fatigue before a critical situation is encountered on operations.

***Ensuring a high level of job skills*** – When soldiers are fatigued, instinctive reaction to combat situations becomes vitally important. The less thought required to perform important actions under stress the more likely that the job will get done.

***Cross training personnel in important tasks*** – This is important so that a unit can continue to operate even when one of its members is badly affected by sleep deprivation. Cross training also allows task sharing and cross checking which is vitally important for tasks such as mission planning.

***Educating troops on the effects of sleep deprivation*** – The better educated your troops are the more likely they are to continue performing when fatigued.

***Fostering good morale and teamwork*** – A team with good morale, effective leadership and strong teamwork will perform under adverse conditions for longer than a team where no one trusts the leader or where there are rivalries. Personality conflicts and morale problems will be multiplied by fatigue as troops become short tempered when fatigued.

**Maintaining a high level of fitness in troops** – A high level of fitness will help soldiers cope with fatigue and this is one of the simplest things that can be taken care of before deploying on operations.

### **On Operations**

Once the unit deploys it is the unit commander's job to manage the work/rest pattern of personnel to ensure maximum operational effectiveness.

The most important thing to keep in mind when planning operations is that sleep needs to be dealt with like other logistical requirements such as food, water and ammunition. As a commander you can't ignore when your troops are low on ammunition and the same is true for sleep.

Although this article talks about work/rest plans in some cases this will mean that the unit is simply going to push on without sleep for a number of days in order to achieve the tasks allocated by higher command. Just keep in mind that after several days without sleep you will need to plan in rest periods or follow up operations will be impossible.

### **Sustained Work Limits and Sleep Requirements**

The table below lists the minimum sleep requirements for prolonged combat effectiveness. Note the huge difference between the requirements for physical and mental tasks and keep this in mind when planning the rest requirements for sub unit leaders and other personnel who have to perform mentally demanding tasks.

<b>Physical Tasks</b>		<b>Mental Tasks</b>	
Acceptable performance (days)	Sleep required (hrs/day)	Acceptable performance (days)	Sleep required (hrs/day)
3	0	1	0
6	1.5	2	1.5
9	3	3	3

Armed with this information commanders should do their best to allow troops to get the required amount of sleep.

### **Dealing with Sleep Deprived Personnel**

If the situation develops where personnel don't get enough sleep it is important for commanders to be able to manage the problem. Listed below are steps that can be taken by commanders to improve the unit's performance.

***Adopt a more relaxed leadership style*** – Good leadership can make a huge difference to performance when troops get tired. Reassure rather than pressure troops to get them to complete tasks.

***Give simple directions*** – Try to limit the number of things that soldiers need to keep in mind at once. This prevents forgetfulness and confusion.

***Repeat all orders and check for comprehension*** – When soldiers are tired they may miss parts of orders or misinterpret things. Have them repeat directions back to you.

***Double check work, especially where complex calculations or safety are involved*** – This is critical to avoid friendly fire incidents and accidents.

***Pair soldiers up*** – Develop a buddy check system so that soldiers can rotate work and rest and keep an eye on each other for signs of serious impairment.

***Don't leave soldiers alone*** – No matter how motivated and disciplined they are if you leave a soldier on sentry alone there is a good chance they will fall asleep. To avoid this make sure you pair soldiers up.

***Rotate soldiers through tasks*** – Make sure you rotate personnel through demanding tasks so that the load is shared among the unit.

***Monitor individuals*** – Some individuals will have to be rested sooner than others. Make sure troops are applying the individual measures for dealing with sleep deprivation.

***DON'T BECOME A CASUALTY OF SLEEP DEPRIVATION YOURSELF!*** - While it is tempting to think that as a commander you are tougher than your troops the reality is that you need more sleep than them in order to perform the complex tasks of leadership, supervision and mission planning.

Learn to delegate tasks and don't be afraid to take time out to rest.

## **Remember it's your brain that keeps them alive!**

### **Conclusion**

The information presented in this article will help you and your unit remain effective for longer in an operational environment.

Sleep deprivation is not something that should just be accepted as a part of military operations. Instead it should be dealt with as a logistical quantity that needs to be managed in the planning and execution phase of every deployment.

Careful planning of sleep and smart management of fatigued soldiers will see the mission completed with fewer casualties and greater effectiveness and in the end that should be the goal of every soldier.

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