

# Marble Falls Area EMS Fatigue Profile and Sleep Deprivation Study



## Alterations of Operations

### Summary

**Safety is our greatest concern.** At the request of the Board of Directors, research regarding fatigue and sleep deprivation as it applies to and effects Marble Falls Area EMS began on Thursday, June 18, 2008, to address a specific concern of an employee. The research available is recent and conclusive in many ways, however, it is clear that there are many factors that are outside of the control of the operation that contribute to this concern for safety.

Outlined in this summary are suggested changes that can decrease the fatigue and sleep deprivation risk inherent in the EMS field. Consideration was given to prioritizing the changes, however, it is recognized that the recommended changes have a synergistic effect and therefore should be considered for their cumulative effects. Any of these suggested improvements will increase worker safety. Furthermore, we will be providing mandatory ongoing education in fatigue management, lifestyle planning, and sleep improvement techniques to help reduce and minimize stress.

The items are color coded as follows:

Color	Description
White	Should be considered policy. Open for feedback.
Green	Strongly considered and encouraged. Open for feedback.
Yellow	Strongly considered but requiring resources. Open for feedback
Red	Considered but requiring further research and consideration. Open for feedback.

*Your feedback is important, however, we will not compromise safety for convenience.*

### Station Operations

<ul style="list-style-type: none"><li>Crews will be encouraged to nap as time and workload allows. Team members that have a shift duration of greater than 24 hours may remain in bed in the morning if their shift is a continuation at the same station. It is still the responsibility of crew members to complete all duties for the day and shift, as assigned.</li></ul>
<ul style="list-style-type: none"><li>Naps should be taken in the bedrooms, when possible. Crews may nap, without footwear, during the day in the dayroom area, but should not be under covers. Crews that nap in the dayroom are expected to awaken, return to full uniform status, and be prepared for professional interactions with visitors and other staff members.</li></ul>
<ul style="list-style-type: none"><li>"Quiet Time" in the stations shall be observed - Quiet time in the station will be from 2300-0600. This is the 7 hour sleep period. Use of computers and television during this time will be discouraged.</li></ul>
<ul style="list-style-type: none"><li>Crews will be discouraged from sleeping in recliners and on couches during "Quiet Time".</li></ul>
<ul style="list-style-type: none"><li>Use of Stimulants - Use of caffeine and nicotine will be sharply discouraged. There will be zero tolerance for use of nicotine in the station or in open public spaces while identifiable as a Marble Falls Area EMS provider. For events where MFAEMS provides refreshments, caffeine free drinks will be provided.</li></ul>
<ul style="list-style-type: none"><li>Personnel that are permitted to spend the night at the station will also be subject to the "Quiet Time" rule, as stated above. Additionally, MFAEMS will provide a cot to be placed in the training room. Anyone that is staying in the station prior to the start of shift should be isolated, to the extent possible, from pager, radio, and phone noise and shall be assigned the training room, after 2200, as their sleeping area.</li></ul>

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### Driving Operations

- When traveling, crews will be encouraged to stop in a safe location, get out, move around/stretch and refresh with water for up to 5 minutes. This practice is NOT encouraged while patient loaded unless the driver deems it necessary for safety AND the patient condition allows it. Every effort shall be made to discuss and inform the patient of the intent, if this is exercised. Stopping to get or use stimulants is strictly prohibited.
- If the return to the service area between 2300 and 0600, crews shall rotate driving duties every 20 minutes. During the 20 minute time of rest for the partner, that crew member is encouraged to secure himself to the stretcher, with belts, and rest for that period. A sheet to cover the stretcher and a pillow for this specific purpose shall be provided.
- Driving duties should be shared throughout the shift. Consideration must be given to allowing the use of the TripTix device to complete electronic patient care records prior to return to station. This does not supersede the 20 minute swapping of driver rule. Safe operation of the vehicle is the most significant and important consideration.

### Organizational Changes

- Other Assigned Shifts (OAS) overtime that is scheduled by Marble Falls Area EMS will be at the Horseshoe Bay Station whenever possible. It may be necessary, due to staffing needs, to occasionally vary from this, however, it is MFAEMS' intent to minimize risk by keeping staff in stations with lesser call volume and no transfer load. (IMPLEMENTED)
- Lieutenants will develop, in policy, the rotation standard for trucks as it relates to transfers on contract transfer days, transfers on non-contract days (to include transfers after 1700), and consistent selection criteria for which unit is up for the next call for service in Marble Falls.
- Any crew member that operates for 30 hours without the opportunity for a minimum of 90 minutes sleep (ideal being 6 hours of sleep) should be taken out-of-service and given a mandatory 2 hour rest period.
- Evaluation of a policy that will involve movement / exchange of the Horseshoe Bay unit with a Marble Falls unit for shift relief (4 to 8 hours), based on call loading and unit status. This will NOT be done to the detriment of coverage in Horseshoe Bay.
- Evaluation of changing our primary shift change time from 0700 to 1900 to better match Circadian and biological cycles.
- Evaluation of changing command structure to include a shift supervisor that is a separate crew member that can monitor and dispatch units during the hours of 2300-0600, allowing crews to rest without awakening for every dispatched call.

### Personal Responsibilities

- No alcohol is to be consumed within 12 hours of the start of the shift. The smell of metabolites or the verification of drinking within 12 hours of work will result in immediate suspension from duties. This can result in termination. Use of random drug testing, including the evaluation of alcohol and the associated metabolites, will be conducted by Marble Falls Area EMS. (ABSOLUTE - IMPLEMENTED)
- Crews are encouraged to get at least 6 hours (ideally 8 hours) of sleep prior to the start of their shift. Use of prescription or non-prescription approved sleep aids are acceptable so long as the use is supervised by a physician and resolution of the effects is complete prior to the start of the assigned shift.
- Crews are encouraged to bring entertainment and relaxation items to work. This cannot include pets.
- Crew members are discouraged from using caffeine within 16 hours of the start of shift. Use of caffeine and other stimulants (energy drinks included) are discouraged during shift.
- The use of nicotine is strongly discouraged and will only be permitted in the designated area.
- Crew members are encouraged to exercise while on-duty. Access to FD equipment is being arranged. Changes are being made to the uniform standard to allow for working out.
- Crew members with sleep apnea are encouraged to bring CPAP machines to improve sleeping in the station.