



# NTSB 2017-2018 MOST WANTED LIST OF TRANSPORTATION SAFETY IMPROVEMENTS

## Reduce Fatigue-Related Accidents



HIGHWAY

**MWL**  
MOST WANTED LIST

**Fatigue degrades a person's ability to stay awake, alert, and attentive to the demands of controlling their vehicle safely.**

### What is the issue?

**T**rucks, buses, and cars are machines that require complex human interaction and an operator's complete attention and proficient skill. All too often, however, drivers, maintenance personnel, and other individuals performing safety-critical functions are impaired by fatigue stemming from insufficient or poor-quality sleep.

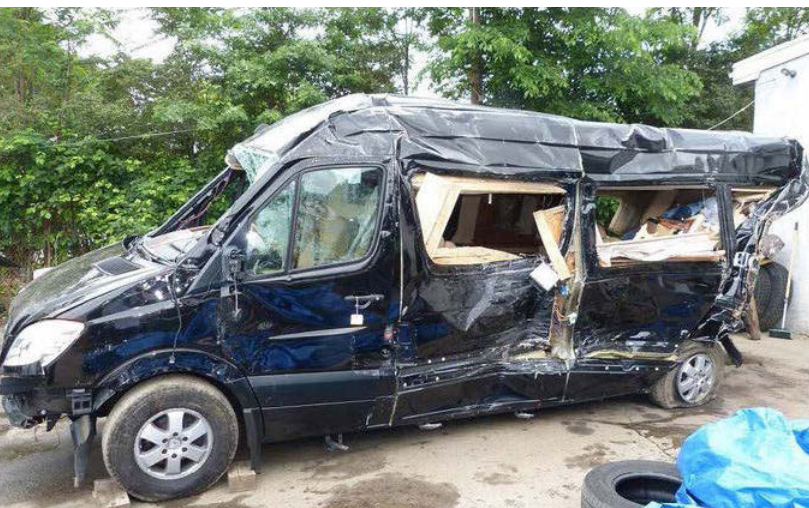
Whether driving a vehicle, piloting a ship, or flying professionally for an airline, transportation vehicle operators need to have enough off-duty time to obtain sufficient sleep. Sleep experts say most adults need between 7 and 9 hours of sleep each night for optimum performance, health, and safety. But even when an individual has enough time to get rest, medical conditions, living environment, and personal choices can affect one's ability to obtain quality sleep.

The consequences of fatigue on human performance can be subtle. Fatigue is both a symptom of poor sleep and health management and an enabler of risky behavior, such as poor judgment and decision making, slowed reaction times, and loss of situational awareness and control. Fatigue degrades a person's ability to stay awake, alert, and attentive to the demands of controlling their vehicle safely. Drivers may not recognize the effects of fatigue until it is too late. The traveling public can unknowingly and unwillingly be placed at risk because a fatigued operator cannot safely execute his or her duty.

According to the National Highway Traffic Safety Administration, from 2009 to 2013, more than 72,000 police-reported crashes involved drowsy drivers, and resulted in more than 41,000 injuries and more than 800 deaths. Another study conducted in 2014 by the AAA Foundation for Traffic Safety estimated that as many as one in five fatal crashes involve drowsy driving. Additionally, a recent AAA survey found that more than 31 percent of highway vehicle drivers admitted driving while so tired that they had trouble keeping their eyes open.

### What can be done?

We must acknowledge that fatigue is a manageable threat to transportation safety that can be mitigated through reasonable measures based on company practices and individual responsibility.



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We must draw attention to the medical conditions that may affect sleep quality, such as obstructive sleep apnea (OSA), insomnia, and restless leg syndrome. We must also draw attention to company best practices that allow operators to schedule adequate off-duty time for rest and to report, treat, and track health conditions that affect the quality of their sleep.

We have issued more than 200 safety recommendations addressing fatigue-related problems across all modes of transportation. Addressing the problem of human fatigue in transportation requires a comprehensive approach that focuses on research, education and training, technology, treatment of sleep disorders, hours-of-service regulations, and on- and off-duty scheduling policies and practices.

**All vehicle operators must be better educated about medical conditions and impairing drugs that can impact sleep quality and duration as well as an operator's on-duty performance.**



Companies must establish fatigue risk management programs and continually monitor their success to reduce risks for personnel performing safety-critical tasks. Fatigue risk management programs take a comprehensive, tailored approach to address the problem of fatigue within an industry or workplace. Such programs include policies or practices to address scheduling, attendance, education, medical screening and treatment, personal responsibility during non-work periods, task/workload issues, rest environments, commuting, and napping.

The best countermeasures to combat fatigue depend on the task at hand, work-rest schedules, and sleep opportunities. Data on the habits of workers in different modes of transportation, along with the results of existing fatigue management programs and research into possible alternatives, will allow for a better analysis to determine the best fatigue countermeasures to employ in every situation.

Additional development and implementation of in-vehicle technologies that reduce fatigue related accidents can also improve safety. For example, starting in December 2017, the Federal Motor Carrier Administration will require commercial truck and bus drivers to use electronic logging devices to record time on and off duty, which will improve compliance with hours-of-service rules and reduce the risk of fatigue-related commercial motor vehicle crashes. This is a step in the right direction.

Ultimately, fatigue-related accidents can be avoided with a combination of science-based regulations, comprehensive fatigue risk management programs, and individual responsibility. ■

The NTSB Most Wanted List highlights safety issues identified from the NTSB's accident investigations to increase awareness about the issues and promote recommended safety solutions.

The NTSB is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in other modes of transportation – railroad, highway, marine and pipeline. The NTSB determines the probable cause of the accidents and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special studies concerning transportation safety and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members impacted by major transportation disasters.

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**Related Accidents\***

Date	Location	Accident ID
<a href="#">May 31, 2011</a>	<a href="#">Doswell, VA</a>	<a href="#">HWY11MH010</a>
<a href="#">June 7, 2014</a>	<a href="#">Cranbury, NJ</a>	<a href="#">HWY14MH012</a>

\*For detailed accident reports visit [www.nts.gov](http://www.nts.gov)

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**Critical changes needed to reduce transportation accidents and save lives.**

