



NTSB 2016 MOST WANTED TRANSPORTATION SAFETY IMPROVEMENTS

REDUCE FATIGUE-RELATED ACCIDENTS



What is the issue?

People need to be awake and alert to be at their best. But when they operate vehicles while fatigued, they aren't at their best—in fact, they are endangering themselves and others.

Human fatigue is a serious issue affecting the safety of the traveling public in all modes of transportation. Nearly 20 percent of the 182 major NTSB investigations completed between January 1, 2001, and December 31, 2012, identified fatigue as a probable cause, contributing factor, or a finding.

Human fatigue is both a symptom of poor sleep and health management, and an enabler of other impairments, 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. To make matters worse, fatigue actually impairs our ability to judge just how fatigued we really are.

At any time while traveling, the public could be at risk because their vehicle operator—whether they are an airline pilot, a train engineer, a ship captain, or a motorcoach or truck driver—may not be able to safely control the vehicle due to fatigue.

Other safety-critical workers, such as air traffic controllers, train dispatchers, and maintenance workers, also can degrade transportation safety if they are not fully rested. For example, the Federal Railroad Administration found that fatigue is prevalent throughout the railroad workforce, especially in train crews that are not on fixed work schedules.

But fatigue isn't just a problem for operators or other safety-critical personnel involved in the transportation business. It's a problem we all face.

Driver fatigue contributes to hundreds of thousands of motor vehicle accidents each year. In a recent AAA survey of highway vehicles, for example, 43 percent of U.S. drivers admitted to falling asleep or nodding off while driving at least once in their lifetime.

REDUCE FATIGUE-RELATED ACCIDENTS



What can be done?

The NTSB has 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, technologies, treatment of sleep disorders, hours-of-service regulations, and on- and off-duty scheduling policies and practices.

Some of our earliest recommendations called for research to better understand the problem of fatigue in transportation, and, over the past three decades, a great deal of research has been done. But research only goes so far; we must implement what we have learned.

All vehicle and vessel operators must be better educated about medical conditions and impairing drugs that can impact the quality and duration of sleep or their on-duty performance. Regulators can help commercial operators, airlines, vessel operators, and rail agencies identify high-risk drivers, pilots, mariners, and operators. They can do so by institutionalizing guidance regarding the identification and treatment of individuals at risk of obstructive sleep apnea and requiring medical screening of employees in safety-critical jobs.

All interstate commercial vehicle carriers should equip their vehicles with electronic logging devices that collect data on driver hours of service in a valid, accurate, and secure manner to enable the carriers and their regulators to monitor and assess hours-of-service compliance. Additional development and implementation of in-vehicle technologies to reduce the occurrence of fatigue-related accidents also improves safety.

Companies must establish fatigue risk management programs and then continually monitor their success to reduce fatigue-related risks for personnel performing safety-critical tasks.

Fatigue risk management programs take a comprehensive, tailored approach to the issue of fatigue within an industry or workplace, helping to address the problem of fatigue in an operational environment. 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, and commuting and/or napping.

Sleep experts say most adults need between 7–9 hours of sleep each night for optimum performance, health, and safety. Data on the habits of workers in different modes of transportation, along with the results of existing fatigue management programs, will allow for better analysis to determine the best fatigue countermeasures to employ in every situation.

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



*RELATED ACCIDENTS:

Aviation: August 14, 2013; Birmingham, AL; DCA13MA133; 2 dead

Rail: March 24, 2014; Chicago, IL; DCA14FR007; 33 injured

Highway: June 7, 2014; Cranbury, NJ; HWY14MH012; 1 dead

**For detailed accident reports, visit www.nts.gov*

Critical changes needed to reduce transportation accidents and save lives



for more information visit:
www.nts.gov/mostwanted

Twitter @NTSB

Twitter #NTSBMWL

NTSB on Facebook

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 National Transportation Safety Board 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.

National Transportation Safety Board
490 L'Enfant Plaza S.W.
Washington, DC 20594

<http://www.nts.gov/mostwanted>
202-314-6000