



**NATIONAL TRANSPORTATION SAFETY BOARD**

**An independent federal agency**

**The Honorable Christopher A. Hart  
Acting Chairman  
On Behalf of the  
National Transportation Safety Board**

**Before the**

**Committee on Commerce, Science, and Transportation  
Subcommittee on Surface Transportation and Merchant Marine  
Infrastructure, Safety, and Security  
United States Senate**

**Hearing on**

**Surface Transportation Reauthorization:  
Oversight and Reform of the  
Federal Motor Carrier Safety Administration  
Washington, DC  
March 4, 2015**

Good morning, Chairman Fischer, Ranking Member Booker, and Members of the Subcommittee. Thank you for the opportunity to appear before you today on behalf of the National Transportation Safety Board (NTSB) regarding the reauthorization of the Federal Motor Carrier Safety Administration (FMCSA).

The NTSB is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents and incidents in other modes of transportation—railroad, highway, marine, and pipeline. The NTSB determines the probable cause of accidents and other transportation events and issues safety recommendations aimed at preventing future accidents. In addition, the NTSB carries out special transportation safety studies and coordinates the resources of the federal government and other organizations to provide assistance to victims and their family members affected by major transportation disasters. Every day, there are thousands of accidents on our nation's highways resulting in tens of thousands of fatalities each year. Unfortunately, far too many of these highway crashes involve large trucks and buses, and the number of crashes involving large trucks has been increasing for the last several years.

Last month, the NTSB released its Most Wanted List of Transportation Safety Improvements for 2015. Each year, we develop our Most Wanted List to highlight safety issues identified from our accident investigations. One of the Most Wanted areas included this year is to “Strengthen Commercial Trucking Safety.” We rely on commercial trucks to deliver food and goods to our local grocery stores, medical supplies to our pharmacies and hospitals, and packages to our loved ones. But because of their sheer size, weight, and physical properties, commercial trucks introduce a disproportionate hazard to passenger vehicle occupants in a crash. We must not lose sight of some very alarming statistics concerning the staggering number of deaths and injuries that occur each year in crashes involving large trucks and buses. In 2012 alone, nearly 4,000 people were killed and more than 100,000 people were injured in such crashes.

The primary mission of the FMCSA is to reduce crashes, fatalities, and injuries involving large trucks and buses. In the Motor Carrier Safety Improvement Act of 1999, the legislation establishing the FMCSA, among the stated Congressional findings in support of creating the new agency was the following statement: “The current rate, number, and severity of crashes involving motor carriers in the United States are unacceptable.” While there has been considerable reduction in the number of fatalities since the establishment of the FMCSA, much more needs to be done; the death toll is still unacceptable.

Since 1999, the NTSB has issued 126 safety recommendations to the FMCSA, 65 of which are currently in an “open” status. Implementation of the “open” recommendations would strengthen the FMCSA's capability to have an immediate and lasting effect on reducing loss of life on our highways. My testimony will provide a brief overview of some of our recent crash investigations and safety recommendations. I will also discuss the NTSB's concern regarding the upward trend in crashes involving large trucks, the need for improved oversight and vehicle maintenance within the motor carrier industry, the importance of combatting driver fatigue and distraction, driver's medical fitness for duty, and the life-saving benefits of collision avoidance technology.

## **Recent Crashes and Accident Trends**

During the past two years, the NTSB launched investigative teams to 16 major highway crashes involving large trucks, motorcoaches, and school buses.<sup>1</sup> These crashes resulted in 50 fatalities and more than 230 injuries. In 2014, the NTSB completed investigations involving a commercial truck with an oversized load that collided with the I-5 bridge over the Skagit River in Mount Vernon, Washington, resulting in a bridge span collapse and bridge replacement costs in excess of \$4 million; and a truck–train collision in Rosedale, Maryland, resulting in the derailment of a freight train and a post-crash fire and explosion.

Ongoing NTSB crash investigations that we will complete within the next year include the following: a truck-tractor trailer combination unit that crossed a median and collided with a motorcoach transporting high school students and adult chaperones in Orland, California, killing 10 people and injuring 37 others; a truck-tractor trailer combination unit that collided with a limousine van in a work zone in Cranbury, New Jersey, killing one person and injuring eight; a truck-tractor trailer combination unit that crossed a median and collided with a mid-size bus transporting a college softball team in Davis, Oklahoma, killing four and injuring 13; and a truck-tractor trailer combination unit that collided with emergency vehicles assisting a disabled vehicle in Naperville, Illinois, killing an Illinois State Tollway worker and seriously injuring an Illinois State trooper.

In addition to investigating crashes, the NTSB closely monitors highway accident statistics and examines trends in data. The NTSB is very concerned about the increase in fatalities and injuries, and the rate at which large truck crashes are occurring. In 2009, there were 3,380 people killed in crashes involving large trucks; in 2010—3,686 fatalities; in 2011—3,781 fatalities; and in 2012—3,921 fatalities. During this four-year period, not only did the death toll increase, but the rate of large truck crashes per vehicle miles traveled and per number of registered vehicles also increased.<sup>2</sup>

## **Motor Carrier Oversight**

The NTSB has a long history of making recommendations to the FMCSA and its predecessors to improve the safety of the motor carrier industry. Our investigations focus on identifying the underlying causes of accidents and the safety improvements necessary to prevent their recurrence. Many of our investigations have identified shortcomings in the FMCSA's oversight of truck and bus companies. We have repeatedly found instances in which deficiencies in the FMCSA compliance review program allowed companies with serious safety problems to continue operations.

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<sup>1</sup> Crash locations and dates: Elizabethtown, KY (03/02/13); Irving, TX (04/11/13); Mount Vernon, WA (05/23/13); Rosedale, MD (05/28/13); Murfreesboro, TN (06/13/13); Annapolis, MD (07/19/13); Naperville, IL (01/27/14); Centerville, LA (02/15/14); Orland, CA (04/10/14); Anaheim, CA (04/24/14); Cranbury, NJ (06/07/14); Red Lion, DE (09/21/14); Davis, OK (09/26/14); Knoxville, TN (12/21/14); Queenstown, MD (01/10/15); and Penwell, TX (01/14/15).

<sup>2</sup> *Pocket Guide to Large Truck and Bus Statistics, October 2014 Update*, Federal Motor Carrier Safety Administration, Office of Analysis, Research, and Technology.

The two most important areas related to safe motor carrier operations are the performance of drivers and the condition of vehicles. The NTSB believes that the FMCSA should emphasize both of these critical elements in its compliance reviews and disqualify an operator that receives an unsatisfactory rating in *either* vehicle or driver areas. The current compliance review process is inadequate and limits the FMCSA's ability to remove unsafe carriers from our highways before they are involved in a catastrophic crash.

The NTSB's original recommendation regarding this issue was made in 1999 in response to a motorcoach rollover crash in Indianapolis, Indiana, that killed two passengers and injured 13. The motorcoach had only 50 percent braking efficiency and the FMCSA post-accident compliance review resulted each of the carrier's 10 vehicles being placed out of service. Because the company had been inspected nine times between 1987 and 1995, the issues with vehicle maintenance should have been obvious prior to the crash. In 1994, even though 63 percent of the operator's vehicles met the out-of-service criteria, it received a "conditional" rating for vehicle factors. Because all the other factors were rated "satisfactory," the operator was given an overall rating of "satisfactory" and continued to operate. As a result of our investigation of this crash, the NTSB recommended that the FMCSA emphasize both driver performance and vehicle condition in its compliance reviews, and that an unsatisfactory rating in either area should prohibit the carrier from operating.<sup>3</sup>

In the years following, the NTSB investigated additional motorcoach accidents that involved this same issue: a five-fatality motorcoach crash in Victor, New York, in 2002, and a 23-fatality motorcoach fire near Wilmer, Texas, in 2005. Because of the FMCSA's lack of progress, the NTSB cited the agency in the probable cause of the Wilmer accident, stating: "Contributing to the accident was the Federal Motor Carrier Safety Administration's ineffective compliance review system, which resulted in inadequate safety oversight of passenger motor carriers."

In 2007 and 2008, additional NTSB investigations continued to show that the FMCSA compliance review and oversight program was dysfunctional. In our investigations of a 17-fatality motorcoach crash in Atlanta, Georgia, in 2007, and a fatal motorcoach rollover crash in Victoria, Texas, in 2008, we continued to reiterate our previous recommendations for changes to the compliance review process.

In 2008, the FMCSA launched an operational model test of the Compliance, Safety, Accountability (CSA) program (originally named the Comprehensive Safety Analysis 2010 initiative), which promised to be a complete revamp of the compliance review process. The measurement component of the CSA program is the risk-based Carrier Safety Measurement System (CSMS), which quantifies the on-road performance of motor carriers to prioritize enforcement resources. Since the implementation of the CSMS, the NTSB has found that the safety measurement scores will often accurately predict serious safety deficiencies in a company's operation. Unfortunately, however, in many of the crashes we investigated, there was insufficient intervention prior to the accident to remove the unsafe carrier from operation.

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<sup>3</sup> H-99-6

In 2011, following the NTSB's investigation of a 15-fatality motorcoach crash in New York City, we recommended that the FMCSA include safety measurement rating scores in the methodology used to determine a carrier's fitness to operate.<sup>4</sup> The final report urged the FMCSA to move forward more expeditiously on finalizing the Safety Fitness Determination (SFD) process to help remove unsafe motor carriers and their drivers from the nation's highways.

According to the February 2015 U.S. Department of Transportation (DOT) Significant Rulemakings Report, FMCSA planned to initiate its rulemaking to propose changes to the SFD process in 2007, but did not do so until September 2009. The agency's plan to publish a notice of proposed rulemaking (NPRM) in March 2008 is now predicted to occur in July of this year. The NTSB is very concerned about the continued delay in the release of the SFD rulemaking. Over 15 years has passed since we first called attention to problems with the FMCSA's compliance review process and the oversight program remains dysfunctional. Prolonged deferral of rulemaking will continue to allow many unsafe, high-risk carriers to operate on our highways without intervention, posing a significant risk to the motoring public.

### FMCSA Effective Use of Resources

The task facing the FMCSA is enormous and its resources are limited. With about 1,000 dedicated and outstanding employees, the FMCSA regulates a diverse industry consisting of more than 539,000 interstate truck and bus companies, 10.5 million large trucks, 760,000 buses, and 5.6 million commercial drivers. In comparison, the Federal Aviation Administration has over seven times the number of employees who assist in regulating a much smaller industry of airline companies, aircraft, and pilots. It is vitally important that the FMCSA employ a collaborative, transparent, and data-driven approach to address the highest risk motor carriers, drivers, and vehicles. Due to its limited resources, the FMCSA is able to complete an annual compliance review for only about 3 percent of the 539,000 active interstate motor carriers.

Given the unacceptably low compliance review rate of the motor carrier industry, it is of utmost importance that the FMCSA maximize the effectiveness of onsite reviews. The NTSB, however, has questioned the effectiveness of these reviews. In 2013, for example, the NTSB investigated four commercial motor vehicle crashes, which together resulted in 25 deaths and 83 injuries. Data collected for each motor carrier presented "red flags" that should have led to strong intervention by the FMCSA; information such as longstanding and insufficient safety management practices, poor performance during roadside inspections, and law enforcement data indicating that the companies posed a significant risk and hazard to the motoring public. In each case, FMCSA safety investigators had visited the company prior to the crash and given it a clean bill of health, but immediately following the crash—after an NTSB investigation—the FMCSA found significant safety deficiencies and in three of the four cases, declared the company an imminent hazard, and placed it out of service. As a result of these recent NTSB investigations, we made two recommendations to the DOT to conduct an internal audit of processes at the FMCSA.<sup>5</sup>

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<sup>4</sup> H-12-17

<sup>5</sup> H-13-39 and H-13-39

On February 3, 2014, in response to these recommendations, the DOT convened a task force to conduct an independent review of the compliance review process under the direction of the DOT Safety Council. NTSB staff met with task force members to provide additional views and information. It is our understanding that the review was completed in the summer of 2014 and today—9 months later—it has not yet been released, but is still with the Secretary of Transportation. The NTSB looks forward to seeing the study results and what changes are proposed to improve the effectiveness of the FMCSA compliance review process.

### Oversight of New Entrant and Reincarnated Motor Carriers

In addition to ensuring adequate oversight of the motor carrier industry, the NTSB has long recommended that the FMCSA implement additional safeguards to ensure that new entrant carriers are safe before beginning operations. Although we commend the FMCSA for issuing a final rule in 2008 that strengthened requirements for new entrant carriers, additional processes need to be in place to keep carriers from going out of business and then restarting as a new motor carrier with a different company name and DOT number.

In 2002, the NTSB investigated a crash involving a truck-tractor semitrailer collision with a Greyhound bus in Loraine, Texas, that resulted in three deaths. Our investigation revealed that when the trucking company owner submitted his application, he lied about his knowledge of regulations, his compliance management systems, and a drug conviction for possession of large amounts of marijuana. The owner also failed to maintain required records on his drivers or vehicles, have a drug and alcohol program, and conduct background checks of drivers. He also dispatched the accident driver knowing that he did not have a CDL or a medical certificate. At that time, the process of becoming a motor carrier was not complicated. The owner of a truck or bus company merely needed to fill out an online form and pay a small fee to receive operating authority from the FMCSA with practically no agency review or follow-up of new entrant motor carriers. As a result of that investigation, the NTSB recommended that the FMCSA require new motor carriers to demonstrate their safety fitness prior to obtaining new entrant operating authority.<sup>6</sup>

Unfortunately, NTSB investigations have discovered unscrupulous motor carriers using the new entrant program to evade enforcement action or an out-of-service order by going out of business and then reincarnating as a brand new company. The NTSB found this to be the case with the motorcoach operator involved in the 17-fatality Sherman, Texas, crash in 2008. After losing its authority to operate because of an unsatisfactory compliance review rating, the operator subsequently applied for new authority under a new name as a new entrant. The NTSB concluded that the FMCSA processes were inadequate to identify the operator as a company that was simply evading enforcement action. We recommended that the FMCSA evaluate the effectiveness of its New Applicant Screening Program.<sup>7</sup>

The NTSB found additional deficiencies with the FMCSA's new entrant program during the investigation of a 2008 accident in which the driver fell asleep and the motorcoach overturned in Victoria, Texas, killing one person. The FMCSA failed to notice that the operator

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<sup>6</sup> H-03-02

<sup>7</sup> H-09-21

reincarnated as a new operator shortly after the crash. As a result, the NTSB issued recommendations requesting that the FMCSA develop methods to identify reincarnated carriers and seek authority to deny or revoke their operating authority.<sup>8</sup> In September 2009, the FMCSA's Motor Carrier Safety Advisory Committee echoed the NTSB's position that new entrants should be evaluated before being allowed to operate.

In 2011, the NTSB investigated a multiple-fatality motorcoach rollover crash near Doswell, Virginia. We found that the motorcoach operator did not undergo a safety audit until it had been in business for nearly two years. Although the carrier had no effective safety programs in place and had safety deficiencies in three important areas, it passed the new entrant audit and the FMCSA approved its application for operating authority. As a result of the Doswell investigation, the NTSB recommended that the FMCSA review with each new entrant motor carrier a structured process to identify the root cause of safety risks and maintain an effective safety assurance program.<sup>9</sup>

In 2012, the FMCSA and state commercial motor vehicle enforcement personnel completed more than 34,000 new entrant safety audits. Unfortunately, however, NTSB investigations continue to identify issues regarding the program's effectiveness. In 2013, the NTSB investigated a highway-railroad grade crossing collision in Rosedale, Maryland, in which a single-unit truck crossed in front of a freight train, resulting in the train's derailment, a post-crash fire, and an explosion involving hazardous materials. The trucking company had been in the new entrant program for an extended time after failing its initial safety audit and it submitted multiple corrective action plans. Nevertheless, neither the FMCSA nor state enforcement personnel followed up to ensure that it had adequate safety controls. As a result of this crash investigation, the NTSB recommended that the FMCSA require a full compliance review of new entrants that fail their initial safety audits.<sup>10</sup>

## **Vehicle Maintenance**

The NTSB has made numerous recommendations over the years on the safety of commercial motor vehicles and has found serious deficiencies in critical vehicle components such as brakes and tires. Unfortunately, experience has demonstrated that this is not an anomaly. Year after year, roadside inspectors have found that about 20 percent of commercial motor vehicles are in a condition serious enough to render them out of service.

The NTSB has taken issue with the FMCSA's oversight of vehicle inspections including inspections of commercial motorcoaches. Following the eight-fatality Tallulah, Louisiana, and the 17-fatality Sherman, Texas, motorcoach crashes, the NTSB recommended that the FMCSA provide adequate oversight of private inspection garages.<sup>11</sup>

In crashes involving a school bus in Mountainburg, Arkansas, and a dump truck in Glen Rock, Pennsylvania, the NTSB found that the FMCSA lacked adequate oversight of pre-trip

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<sup>8</sup> H-09-34

<sup>9</sup> H-12-31

<sup>10</sup> H-14-27

<sup>11</sup> H-05-4 and H-09-20

brake inspections, brake inspector qualifications, and formal brake inspector training.<sup>12</sup> The Glen Rock crash prompted the NTSB to recommend that drivers be required to demonstrate proficiency in air-brake vehicles and to understand the dangers of adjusting automatic slack adjusters.<sup>13</sup>

The NTSB found out-of-adjustment and defective brakes to be contributing factors in three of its recent crash investigations: a six-fatality truck-tractor trailer combination unit collision with an Amtrak train in Miriam, Nevada; a truck–school bus crash in Chesterfield, New Jersey; and an eight-fatality motorcoach accident in San Bernardino, California.

The NTSB has also found problems with commercial vehicle tires. A catastrophic failure can result when a speed-restricted tire is used above 55 mph for extended periods. Although this was not the cause of the motorcoach accident in Tallulah, Louisiana, the inspection process failed to identify the speed-restricted tires on this vehicle even though it operated on major highways. The NTSB made recommendations to correct this deficiency.<sup>14</sup>

### **Driver Fatigue**

The NTSB has a long history of making recommendations to reduce driver fatigue and the likelihood of related highway crashes including recommendations on hours of service (HOS), electronic logging devices (ELDs), diagnosis and treatment of obstructive sleep apnea (OSA), education and training, vehicle- and environment-based countermeasures, and risk management programs.

Estimates of the prevalence of driver drowsiness in highway crashes vary widely—from 1 percent of all police-reported crashes to 24 percent of fatal crashes—based on different databases and research methods.<sup>15,16</sup> Because of the absence of a diagnostic fatigue test, driver fatigue is believed to be a widely underreported cause of traffic crashes. The majority of police accident investigators do not code fatigue as being a contributing factor in a crash unless the driver reports falling asleep at the wheel or there is an independent witness. Unless the accident investigation entity reviews the driver’s sleep and work history, and thoroughly evaluates the dynamics of the collision, a finding of driver fatigue as a contributing factor in an accident is highly unlikely.

In October 2014, the NTSB convened a forum on drowsy driving in the noncommercial vehicle driving environment. The forum brought together experts on fatigue and sleep research from around the world. In discussing the prevalence of drowsy driving crashes, experts pointed to a 2012 AAA Foundation for Traffic Safety study that used the National Highway Traffic

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<sup>12</sup> H-02-15, H-02-17, and H-02-18

<sup>13</sup> H-06-02

<sup>14</sup> H-05-03

<sup>15</sup> National Highway Traffic Safety Administration (2011), *Traffic Safety Facts: Drowsy Driving*, DOT-HS-811-449, reports 1.3 percent of all crashes, 2 percent of injury crashes, and 2.4 percent of fatal crashes involve a drowsy driver.

<sup>16</sup> National Highway Traffic Safety Administration (2006), *The Impact of Driver Inattention on Near-Crash/Crash Risk: An Analysis Using the 100-Car Naturalistic Driving Study Data*, DOT-HS-810-594, estimated that 22-24 percent of crashes and near-crash events involved moderate to severe driver drowsiness.



Safety Administration's (NHTSA) National Automotive Sampling System (NASS) crashworthiness system data from 1999–2008 comprising 47,597 crashes and over 80,000 vehicles. The study estimated that 17 percent of fatal crashes involved at least one drowsy driver. Among crashes where at least one occupant was hospitalized, 13 percent involved a drowsy driver, and in overall statistics, about 7 percent of crashes involved at least one drowsy driver. Based on these percentages, we can conservatively estimate that more than 5,000 people are killed each year in crashes involving fatigue.

### Hours of Service Regulations

The NTSB has found fatigue as a contributing factor in far too many truck and bus crashes. In the 1990s, we conducted two safety studies of commercial truck crashes and found that fatigue was the most frequently cited probable cause or factor in investigated crashes that were fatal to the driver. Based on these studies, the NTSB recommended that the FMCSA use science-based principles to revise the HOS regulations for commercial drivers, ensure that the rule would enable drivers to obtain at least eight hours of continuous sleep, and eliminate sleeper berth provisions that allow for the splitting of sleep periods.

In December, 2010, the FMCSA issued an NPRM to change the HOS rule for truck drivers but, unfortunately, left the rules for passenger carriers unchanged. The NTSB responded to the NPRM by supporting those provisions that are scientifically based and would reduce continuous duty or driving time, encourage break-taking, promote nighttime sleep, and foster scheduling patterns that are predictable and consistent with the normal human diurnal circadian rhythm. We also stated that limiting how often drivers may use the “restart” provision and requiring that the 34-hour restart interval include two periods between midnight and 6:00 a.m. should have the effect of increasing the amount of sleep that drivers receive during the restart period and may encourage drivers that are more diurnally oriented.

The NTSB acknowledges the challenges associated with establishing HOS regulations that promote safety and driver health while still providing drivers and operators with sufficient flexibility to make scheduling decisions and carry out operations in a competitive manner. Although many drivers do not have schedules that extend to the regulatory limits, some motor carriers have elected to incorporate the maximum on-duty period requirement into their supply chain planning, which results in scheduling drivers to the regulatory limits.

The NTSB will continue to support and advocate for HOS regulations that are likely to reduce driver fatigue. Nevertheless, we acknowledge that HOS rules alone cannot solve the problem of fatigue-related crashes. As discussed below, the NTSB has also made recommendations calling for a mandate for ELDs, detection and treatment of obstructive sleep apnea, and effective fatigue management programs.

### Electronic Logging Devices

Although HOS rules have been in place for years, the NTSB continues to see a disturbing trend of fatigued drivers operating commercial motor vehicles well in excess of HOS limitations and subsequently being involved in catastrophic crashes. For over 35 years, the NTSB has

advocated the use of ELDs to allow better monitoring of hours of service and driver fatigue. In 2007, following the NTSB's investigation of a truck-tractor trailer accident in Chelsea, Michigan, we recommended that the FMCSA require ELDs for HOS monitoring for all interstate commercial carriers.<sup>17</sup>

Properly designed, used, and maintained ELDs enable drivers, motor carriers, and authorized safety officials to track on-duty driving hours more effectively and accurately, thus preventing both inadvertent and deliberate HOS violations. Driver compliance with the HOS regulations helps ensure that they are provided time to obtain restorative rest and enable them to operate their commercial motor vehicles safely. It is vitally important that the FMCSA expeditiously issue a final ELD rule to increase compliance with HOS regulations and prevent future crashes, deaths, and injuries.

### Obstructive Sleep Apnea

OSA is a major and often undiagnosed sleep disorder. The NTSB has investigated several accidents in which OSA contributed to the fatigue of the driver, pilot, mariner, or train operator. In October 2009, we issued recommendations to the FMCSA addressing this safety problem to: (1) require drivers with a high risk for OSA to obtain medical certification that they have been appropriately evaluated and, if necessary, effectively treated for that disorder; and (2) provide guidance for commercial drivers, employers, and physicians about identifying and treating individuals at high risk of OSA.<sup>18</sup>

### Fatigue Management Program

Along with HOS regulations and tamperproof ELDs, fatigue management is the third leg of this critical safety stool. In 2008, following three fatigue-related bus crashes that occurred in Osseo, Wisconsin; Lake Butler, Florida; and Turrell, Arkansas—in which a total of 27 people died and 60 were injured—the NTSB requested the FMCSA develop a plan to deploy technologies in commercial vehicles to reduce fatigue-related accidents.<sup>19</sup> The Miami, Oklahoma, crash, involving a fatigued truck driver prompted us to reiterate these recommendations and make an additional recommendation to require that all motor carriers adopt a fatigue management program.<sup>20</sup>

### Cell Phone Distraction

The NTSB issued its first recommendation about cell phone use by a commercial driver in 2006, following an accident in Alexandria, Virginia, in which an experienced motorcoach driver, who was having a conversation on his hands-free cell phone, failed to move to the center lane and struck the underside of an arched stone bridge on the George Washington Parkway. Our investigation found the driver had numerous cues to change lanes at the appropriate time for sufficient clearance. In fact, not only was the driver familiar with the road, but he was also

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<sup>17</sup> H-07-41

<sup>18</sup> H-09-15 and H-09-16

<sup>19</sup> H-08-13

<sup>20</sup> H-10-9

following another bus that had already moved to the appropriate center lane. Despite all this, he still did not notice the well-marked signage or any other cues as he approached the bridge. The crash was clearly caused by the driver's cognitive distraction due to his hands-free cell phone conversation.

Following the investigation of a 10-fatality truck-tractor trailer combination unit crossover crash in Munfordville, Kentucky, in March 2010, which was caused by the truck driver's distraction from cell phone use, the NTSB recommended that the FMCSA prohibit the use of both hand-held and hands-free cellular telephones by all CDL holders while operating a commercial vehicle.

In December 2011, the FMCSA and the Pipeline and Hazardous Materials Safety Administration published a joint rule, at 49 CFR 392.82, specifically prohibiting interstate truck and bus drivers from using hand-held cell phones while operating their vehicles. The rule, however, did not prohibit hands-free use of phones. In response, the NTSB expressed concerns that the rule did not go far enough and failed to address the cognitive distraction aspect of hands-free cell phone usage. Research has shown that both the visual-manual distraction of manipulating portable electronic devices (PEDs) and the cognitive distraction of using hand-free PEDs significantly impair driver performance. Although using a hands-free device to operate a PED may mitigate, to some degree, the visual-motor distractions associated with certain subtasks, such as keying in a phone number, it does not mitigate the cognitive distraction associated with being involved in a conversation while driving.

In the Rosedale, Maryland, crash discussed previously, a truck driver who was engaged in a hands-free cell phone conversation while approaching a highway-railroad grade crossing proceeded into the path of an approaching freight train. As noted above, the crash resulted in the derailment of the train, release of hazardous materials, and a post-crash fire and explosion. In this case, the NTSB again recommended that the FMCSA prohibit any use of a hands-free PED by a CDL holder while the driver is operating a commercial vehicle.<sup>21</sup>

### **Medical Fitness for Duty**

The NTSB has investigated many crashes involving commercial drivers with serious preexisting medical conditions that had not been detected or adequately evaluated. The most tragic example is the 1999 Mother's Day crash in New Orleans, Louisiana, in which a motorcoach driver lost consciousness while driving on an interstate highway and crashed into an embankment, killing 22 passengers and injuring 21. The driver had multiple previously known serious medical conditions, including kidney failure and congestive heart failure, and he was receiving intravenous therapy for three to four hours a day, six days a week.

The FMCSA should be commended for implementing many of the Board's recommendations in this area and has taken important steps to address medical issues, including publishing a final rule on merging the CDL with the medical certificate and creating a national registry of certified medical examiners. Nevertheless, much work still remains to be done. For example, the FMCSA needs to ensure that medical certification regulations are periodically

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<sup>21</sup> H-14-26

updated and examiners are qualified and know what to look for.<sup>22</sup> Additionally, although we commend the FMCSA for promulgating its National Registry for Certified Medical Examiners in 2012, we believe that the registry needs to include a tracking mechanism for driver medical examinations.<sup>23</sup>

The NTSB is hopeful that the registry will reduce the current practice of drivers “doctor shopping” to find someone who will find them to be medically fit. Likewise, a second level of review is necessary to identify and correct the inappropriate issuance of medical certifications.<sup>24</sup> The FMCSA must establish a system for reporting medical conditions that occur between examinations and develop a system that records all positive drug and alcohol test results and refusal determinations, requiring prospective employers and certifying authorities to query the system before making hiring decisions.<sup>25</sup>

### **Crash Avoidance Technologies**

Collision avoidance technologies offer lifesaving benefits by helping to reduce crashes involving commercial motor vehicles. The NTSB currently has more than 80 open safety recommendations to NHTSA, many of which relate specifically to technologies that, if deployed on trucks and buses, would reduce and mitigate the severity of crashes. These technologies include forward collision warning systems, lane departure warning systems, electronic stability control systems, and speed-limiting technology. Many of these recommendations have not been acted upon by NHTSA. The NTSB encourages FMCSA collaboration with NHTSA to help expedite the development of performance standards and regulations requiring these important technologies.

### **Closing**

The safety issues and crashes discussed today are a reminder that there is much to be done to improve the safety of commercial highway operations. Crashes provide a unique opportunity to identify real world issues, and the highway safety community should learn from its mistakes. Too many of the issues discussed today have been causal to multiple motor carrier and motorcoach crashes over a number of years, yet NTSB investigators see these factors again and again. Transportation safety is too important to the well-being of our citizens, our industry, and our economy to repeat past mistakes. We must do better.

Thank you for inviting me to testify today. I am happy to answer your questions.

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<sup>22</sup> H-01-17 and H-01-19

<sup>23</sup> H-01-18

<sup>24</sup> H-01-21

<sup>25</sup> H-01-24 and H-01-25