



Testimony of
Steve Blackistone
State and Local Liaison
National Transportation Safety Board

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Committee on Transportation
Pennsylvania House of Representatives

— On —

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Distracted Driving

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Good afternoon Chairman Taylor and committee members. Thank you for inviting the National Transportation Safety Board (NTSB) to discuss our recommendations on distracted driving. Our key recommendations represent lessons learned over the last 15 years from numerous accident investigations involving distraction by portable electronic devices.

As a result of our accident investigations, we have seen first-hand that distraction is a growing and life-threatening problem in all modes of transportation. To reduce crashes, injuries, and deaths, drivers and other operators must completely disconnect from an increasing variety of deadly distractions.

The NTSB is an independent Federal agency charged by Congress to investigate transportation accidents, determine the probable cause, and make recommendations to prevent a recurrence. The recommendations that arise from these investigations and safety studies are the NTSB's most important tool for bringing about life-saving changes.

The NTSB is concerned about the growing number of highway crashes that involve driver distraction, particularly by portable electronic devices. More than 37,000 people were killed on the nation's highways in 2016, and it is estimated that almost one in 10 of those deaths (9.2 percent) occurred in a crash involving distracted driving. The National Highway Traffic Safety Administration (NHTSA) estimates that about 3,450 fatalities occurred in distraction-affected crashes in 2016.

While data is being collected, currently there is no reliable method to accurately determine exactly how many crashes involve portable electronic devices or other distractions; therefore, it is impossible to know the true scope of the problem.

NTSB Accident Investigations

The NTSB does not investigate every highway crash. Nevertheless, since 2002, we have investigated at least six major highway crashes in which distraction due to the use of portable electronic devices caused or contributed to the outcome.

On February 1, 2002, near Largo, Maryland, a Ford Explorer Sport veered off the left side of the roadway, crossed over a median, flipped over a guardrail, and landed on top of a Ford Windstar minivan. Subsequently, a Jeep Grand Cherokee ran into the minivan. Five people were killed and one person was injured. We determined that the inexperienced driver of the Ford Explorer was distracted by the use of a handheld cell phone at the time of the accident. Based on this investigation, the NTSB asked states to prohibit the use of interactive wireless communication devices by young and novice drivers.

On November 14, 2004, an experienced motorcoach driver, distracted by talking on his hands-free cell phone, failed to notice both that low-clearance warning signs were posted and that

the motorcoach he was following had changed lanes to a lane in which the clearance was sufficient. As a result, he failed to move to the center lane and struck the underside of an arched stone bridge on the George Washington Parkway in Alexandria, Virginia. Eleven of the 27 high school students on the bus were injured. In his post-accident interview, despite the numerous warnings and his knowledge of the route, the driver stated that he did not recall seeing the bridge until the accident occurred. As a result, the NTSB recommended that states ban the use of cell phones by commercial driver's license holders with a passenger-carrying or school bus endorsement.

On March 26, 2010, near Munfordville, Kentucky, a tractor-trailer went off the left side of an interstate highway, crossed the median, and collided with a 15-passenger van that was traveling in the opposite direction. Eleven people, including the truck driver, died. The NTSB determined that the truck driver failed to maintain control of his vehicle because he was distracted by using his cell phone. As a result, the NTSB expanded its previous recommendation from the 2004 Alexandria crash and asked states to ban the use of cell phones, handheld or hands-free, by all commercial motor vehicle drivers.

On August 5, 2010, on a section of Interstate 44 in Gray Summit, Missouri, a pickup truck ran into the back of a tractor-trailer that had slowed due to an active construction zone. The pickup truck, in turn, was struck from behind by two school buses. As a result, two people died and 38 people were injured. The pickup driver sent and/or received 11 text messages in the 11 minutes preceding the accident. The last text was received moments before the pickup struck the truck-tractor. The NTSB concluded that this ongoing texting conversation distracted the driver and contributed to the series of collisions.

The increasing frequency of these accidents since 2002 – combined with the growing trend of portable electronic device usage and the resulting dangerous habits – led the NTSB in December 2011 to issue our boldest recommendation yet. We called for a nationwide ban on the use of portable electronic devices while driving. Whereas previous recommendations addressed specific populations, this recommendation applied to all drivers in all vehicle types.

The NTSB has also seen distractions caused by the use of electronic devices in other modes of transportation.

On September 12, 2008, near Chatsworth, California, a commuter train engineer, who routinely used his cell phone for personal communications while on duty, missed a red signal while distracted by a texting conversation. His train collided head-on with a freight train, killing 25 and injuring more than 100 people.

On July 7, 2010, in Philadelphia, a barge being towed by a tugboat ran over an amphibious "duck" boat in the Delaware River, killing two tourists. The tugboat operator was distracted by his repeated use of a cell phone and laptop computer and failed to maintain a proper lookout.

On May 28, 2013, in Rosedale, Maryland, a 2003 Mack truck was traveling northwest on an access road, toward a private grade crossing when a CSX freight train struck the truck on the right side near the rear axle as it crossed the second set of tracks. The impact caused the truck to rotate and overturn. The first 15 cars of the train derailed and a post-crash fire ensued. The driver

and responders suffered injuries. Contributing to the crash was the truck driver's distraction due to a hands-free cell phone conversation.

On May 31, 2014, near Watkins, Colorado, a pilot and/or his passenger were likely taking pictures of themselves when the pilot lost control of the plane, causing it to crash, and killing them both.

Distraction doesn't just involve the use of personal electronic devices. In its final report on the May 2015 derailment of Amtrak train 188 in Philadelphia, which killed eight and injured 185 others, the NTSB determined that the train engineer was not using a cell phone at the time of the accident. However, our investigation revealed that the engineer was distracted by a radio conversation about an emergency involving a commuter train close to his train. With his focus on these radio discussions, he lost situational awareness as to the location of his train in relation to a curve with the 50-mph speed restriction, and entered the curve traveling at 106 mph.

Research

Epidemiological, driver simulator, and naturalistic studies all show that the risk of a crash is higher when a driver uses an electronic device. These studies, conducted by a variety of different institutions, have made the case that the use of portable electronic devices by motor vehicle operators are dangerously distracting.

Portable devices are ubiquitous. According to industry sources, there were 395.9 million wireless subscriber connections as of December 31, 2016 – or more than one for every man, woman, and child in the country. And, we use them while we are driving.

In 2013, the AAA Foundation for Traffic Safety reported that more than two out of three drivers indicated that they talked on a cell phone while driving within the past 30 days. More than one of three drivers admitted to reading a text message or e-mail while driving, and more than one of four drivers admitted to typing or sending a text or e-mail.

A 2015 report from State Farm revealed a new trend: nearly 30 percent of drivers surveyed admitted to accessing the Internet while driving. That compares to just 13 percent who admitted to surfing the Web while driving in 2009.

Drivers don't just experience a visual or manual distraction when using a cell phone or other type of device; they also suffer a cognitive distraction. The Alexandria, Virginia, motorcoach crash paints a clear picture that this cognitive distraction while conversing is not just limited to the hand-held use of a device.

Other research supports this fact. Two studies examining crash data, one published in the *New England Journal of Medicine* in 1997 and one published in the *British Medical Journal* in 2005, identified as much as a four-fold increase in crash risk when engaging in a cell phone conversation. More recently, in 2011, the Swedish National Road and Transport Research Institute reviewed studies examining distraction resulting from cell phone use and found longer reaction

times with cell phone use, regardless of whether it is handheld or hands-free. Likewise, reviews conducted by researchers at Monash University in 2007 and at the University of Calgary in 2008 concluded that performance was degraded using both handheld and hands-free cell phones.

The Virginia Tech Transportation Institute conducted a series of naturalistic studies and found that the odds ratio for a motor vehicle crash or near-crash involving an experienced driver was 2.49 for dialing and 1.37 for reaching for a phone.

Recent studies by the AAA Foundation also show that hands-free is not risk-free. A driver's level of cognitive distraction is about equal whether using a hands-free or hand-held cell phone. Even voice-based systems may not eliminate distraction and may have unintended effects on traffic safety. In a study released early this year, the Foundation concluded that "visual-manual interaction with cell phones while driving, particularly but not exclusively relative to text messaging, was associated with approximately double the incidence of crash involvement relative to driving without performing any observable secondary tasks."

Finally, the public agrees that cell phone use is dangerous. In June 2014, the National Safety Council reported that 73 percent of drivers think that more enforcement of texting laws is needed. And the AAA Foundation for Traffic Safety reported that 85 percent of Americans think that other drivers who talk on cell phones are a threat to safety.

Multi-Pronged Approach

There is no doubt that the adoption of safe driving behavior, free of electronic device use, will require a cultural shift. If change is to happen, it will require a three-pronged approach: good laws, good education, and good enforcement. We have seen this approach work to improve highway safety – with the widespread use of seatbelts, increased use of child restraints, and reduction in drunk driving. Public education continues to be important for reaching drivers, operators, and safety-critical personnel about the dangers of distractions. But education campaigns must be built on a foundation of strong laws and effective, visible enforcement. In 2015, NHTSA began development on a distracted driving training course for law enforcement, a monograph for prosecutors on investigating and prosecuting distracted driving cases, and a Lessons Learned Guide summarizing the highlights of the recently completed distracted driving High Visibility Enforcement demonstration project.

Past safety campaigns have shown that laws aimed at changing behavior are much more likely to enjoy long-term success when combined with high visibility enforcement and public information campaigns. For example, before states required vehicle occupants to use seat belts, only 14 percent of occupants used them. After states started passing seat-belt laws, belt use jumped to 59 percent in approximately 8 years. Today, with stronger seat belt laws, high visibility enforcement, and education campaigns, seat belt usage is about 90 percent nationwide. There have been similar results with other issues. Over the last 30 years this multi-pronged approach has changed the way drinking and driving is perceived. Education, legislation, and enforcement complement each other.

Conclusion

Recognizing the need for drivers to focus on the driving task, in December 2011, the NTSB recommended that all 50 states and the District of Columbia ban the nonemergency use of all portable electronic devices (other than those designed to support the driving task) for all drivers.

Currently only 15 states and the District of Columbia ban the use of hand-held cell phones while driving. The District of Columbia and 38 states restrict the use of cell phones by novice drivers, and 47 states and the District of Columbia ban text messaging while driving. None bans the use of hands-free devices, as we have recommended.

Distraction is unsafe. It takes the driver's attention away from the driving task. And personal electronic devices increase the risk of distraction – whether they are used for texting or hands-free talking and listening. The NTSB is especially concerned about distractions from the use of electronic devices both because of our accident investigations and because of the increasing use of these devices by the general population. With more and more drivers using devices instead of focusing on driving safely, everyone on the road is at risk.

Distraction is not just about holding a device in a hand or glancing away from the road; it is also about mentally straying from the driving task. Drivers may think multitasking is possible to do effectively. But research studies, statistics, and lives lost show this is not the case. Even a momentary distraction of a driver's attention from the driving task – such as scanning a text message or talking on a hands-free phone – can have catastrophic consequences.

The NTSB's mission is to improve safety by recommending measures to prevent crashes, reduce injuries, and save lives. Our investigations have suggested that this means getting drivers to focus on driving safely, rather than engaging in a conversation or text message on a cell phone or other electronic device.

The NTSB believes a significant number of lives can be saved and injuries avoided if Pennsylvania expands and strengthens its law to include all nonemergency use of all portable electronic devices. It is past time to face the fact that portable electronic devices create distracted drivers, and distracted driving is a serious safety risk. It's not just about protecting the life of the distracted driver – it's about providing for the safety of everyone else on the road. The fact is that no text, no call, no social media update is ever worth a human life.

Thank you for your consideration of this important issue. I would be pleased to answer any questions you might have.

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