



NTSB 2016

MOST WANTED

TRANSPORTATION SAFETY IMPROVEMENTS

PROMOTE AVAILABILITY OF COLLISION AVOIDANCE TECHNOLOGIES IN HIGHWAY VEHICLES



What is the issue?

Motor vehicle crashes continue to be a leading cause of death and injuries in the United States, killing more than 32,000 each year on average. Yet currently available technologies could prevent many crashes.

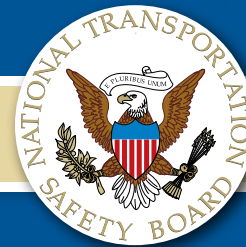
Many passenger and commercial vehicle collisions occur simply because drivers aren't paying attention or are otherwise distracted.

For example, a 2007 National Highway Traffic Safety Administration (NHTSA) study found that the primary reason for rear-end crashes is driver inattention. Nearly half of all two-vehicle crashes are rear-end crashes. In this study, nearly nine out of ten times, a driver failed to attend to the traffic ahead.

Driver inattention played a critical role in nine crashes the NTSB investigated between 2012-2014. These rear-end crashes killed 28 people and injured 90 more. All of them resulted from a driver failing to respond in time to an obstacle ahead.

For example, on March 3, 2013, in Elizabethtown, Kentucky, a truck-tractor in combination with a semitrailer struck a sport utility vehicle (SUV) after the driver did not slow down in time to avoid striking the SUV. A postcrash fire ensued, killing six of the SUV's eight occupants.

Crashes involving sudden roadway departures are also common and almost entirely preventable. In one crash in Dolan Springs, Arizona, in 2009, the NTSB found that a distracted bus driver inadvertently drifted into another lane of traffic, which led to a series of events that culminated in a crash. Seven bus passengers were killed, and nine other bus passengers and the driver were injured.



What can be done?

A variety of in-vehicle collision avoidance technologies—such as collision warning, adaptive cruise control, autonomous emergency braking (AEB), lane departure warning, blind spot detection, and advanced lighting technology—could help to mitigate or even prevent many such crashes.

These technologies help drivers by improving the view of the roadway, alerting drivers of impending danger ahead (a sudden stopped vehicle), or warning a driver if the driver performs an unusual maneuver that could increase the risk of a crash (such as a sudden change in lanes). Some technologies even initiate braking if drivers don't or can't.

Collision avoidance technologies can offer a long-term reduction in fatalities and injuries.

- A 2011 study by the Insurance Institute for Highway Safety suggests that a combination of four technologies—side view assist, forward collision warning/mitigation, lane departure warning/prevention, and adaptive headlights—on all vehicles might prevent or mitigate up to 1.8 million crashes each year, including 10,238 fatal crashes.
- In 2012, NHTSA predicted that AEB (meeting certain requirements) could prevent 13,000–28,000 minor injuries and 500–700 serious injuries resulting from rear-end crashes, and save as many as 65 lives each year.

The NTSB has encouraged technological countermeasures to prevent or mitigate crashes since 1995. In 2001, the NTSB released a special investigation report that focused on how collision avoidance technologies could mitigate or prevent passenger and commercial vehicle rear-end crashes. The NTSB issued an update to that report in 2015 that reiterated its support for forward collision avoidance systems.

Although some passenger vehicle manufacturers offer collision avoidance technologies as standard features in many of their models, this life-saving technology is

frequently only offered as optional equipment—and even then, it is often bundled with other non-safety features (such as moon roofs or leather seats). The NTSB believes that not only should more automakers offer collision avoidance technologies as standard features in their vehicles, but that consumers should not have to purchase a luxury option package to get the safety benefits of these technologies.

Federal agencies must continue to work to develop performance standards for these technologies and rate their effectiveness. In late 2015, NHTSA announced it planned to do just that. But we must keep up the pressure to ensure the plan turns into reality—that the 5-Star Safety Rating system includes such ratings and that those ratings are then displayed on vehicle window stickers so that prospective purchasers have the information they need to make the safest choice.

Ten major passenger vehicle manufacturers committed in 2015 to making AEB a standard feature on all new vehicles. Yet this is just a first step toward preventing crashes. Saving lives and reducing injuries from crashes depends on the broad deployment of these technologies in all new passenger and commercial vehicles.



*RELATED ACCIDENTS:

January 30, 2014; Three Rivers, TX; HWY14IH003; 3 died

January 27, 2014; Naperville, IL; HWY14FH002; 1 died

March 2, 2013; Elizabethtown, KY; HWY13FH008; 6 died

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Critical changes needed to reduce transportation accidents and save lives



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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.

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