

Statement of Mr. James F. Ports, Jr.
Deputy Administrator
National Highway Traffic Safety Administration
before the
Subcommittee on Consumer Affairs, Insurance and Automotive Safety
Committee on Commerce, Science, and Transportation
United States Senate
Oversight Hearing on Passenger Vehicle Roof Strength

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Mr. Chairman, I am Jim Ports, Deputy Administrator of the National Highway Traffic Safety Administration (NHTSA). I appreciate the opportunity to appear before the subcommittee to discuss the important issue of rollover protection, and particularly roof crush safety.

Every death and serious injury that occurs on our Nation's highways is a tragedy. Rollover crashes account for about one-third of the nearly 30,000 light vehicle occupant fatalities that occur each year. I share the same feelings of concern and empathy as you for the individuals and families who have been tragically affected by these dreadful crashes, and extend my deepest condolences to them.

I am proud to say that NHTSA has taken significant steps to reduce the deaths and serious injuries that occur due to rollover crashes. Rollover crashes are complex and chaotic events. They can range from a single quarter turn to eight or more quarter turns, with the duration of the rollover crash lasting from one to several seconds. The wide range of rollover conditions occurs because these crashes largely occur off road where the vehicle motion is highly influenced by roadside conditions. Also, rollover crashes tend to occur at higher speeds than other crash types due to the energy required to initiate them.

The agency developed a comprehensive plan to address these crashes and has made great strides to implement these strategies. It is important to realize that each initiative in NHTSA's comprehensive program addresses a different aspect of the rollover problem. Our strategy is to first reduce the occurrence of rollover crashes, secondly keep occupants inside the vehicle when rollovers do occur, and finally to better protect the occupants kept inside the vehicle during the rollover. Each of these three initiatives must work together to address the various aspects of the rollover problem.

The most effective way to reduce deaths and injuries in rollover crashes is to prevent the rollover crash from occurring. Two agency efforts have been taken to reduce the occurrence of rollover crashes -mandating that all passenger vehicles be equipped with Electronic Stability Control and incorporating a rollover rating into the agency's 5-star vehicle safety ratings (known as the New Car Assessment Program).

In April 2007, NHTSA published a final rule establishing requirements for Electronic Stability Control, or ESC, in passenger cars, multipurpose passenger vehicles, trucks, and buses weighing less than 10,000 pounds. ESC systems use automatic computer-controlled braking of individual wheels to assist the driver in maintaining control in critical driving situations. ESC is the most significant safety advancement since the introduction of seat belts. The agency estimates that this technology will save up to 9,600 lives in all types of crashes annually once all light vehicles on the road are equipped with ESC. These safety benefits will occur in all types of crashes where the driver would lose control of the vehicle and the vehicle would crash off the road or into another vehicle. However, the lion's share of these benefits will be in rollover crashes, where it is estimated that ESC systems will reduce about one-half (4,200 to 5,500) of the approximately 10,000 deaths each year resulting from rollover crashes.

NHTSA incorporated a rollover static stability factor into its New Car Assessment Program (NCAP) in 2001. This consumer information program uses market forces to encourage manufacturers to make safety improvements not the least of which has been the voluntary adoption of ESC systems in many vehicles, including sport utility vehicles. In the seven years since incorporation into NCAP, we estimate that the risk of rollover in a single vehicle crash for an average sport utility vehicle has been reduced by nearly 20 percent, and that an average pickup rollover risk has been reduced almost 10 percent.

When a rollover crash does occur, it is critical to keep the occupant inside the vehicle. The fatality rate for an ejected vehicle occupant is three times as great as that for an occupant who remains inside the vehicle. Our crash data show that about one-half of the people killed in vehicles that rolled over were completely ejected, and another 10 percent of those killed were partially ejected. So mitigating ejections offers potential for significant safety gains. Safety belts are the most effective crashworthiness countermeasure in reducing ejected rollover fatalities. In fact, seat belts reduce the probability of ejection by 91% in fatal crashes in passenger cars and light trucks. In addition to our successful efforts to increase seat belt use, NHTSA also has strength requirements for door latches and a forthcoming SAFETEA-LU proposal for ejection mitigation.

Finally, in addition to rollover crash prevention and ejection mitigation, we strive to better protect the occupants kept inside the vehicle during the rollover through enhanced roof crush resistance. In 1973, the United States became the first country to adopt a roof strength requirement. Since that time, Canada and Saudi Arabia have also adopted a similar requirement. No other government anywhere in the world has any requirement for roof strength.

Each initiative in NHTSA's comprehensive program to address the different aspects of the rollover problem is important because each initiative has a different target population for which that initiative will be effective. Each of these three initiatives must work together to address the various aspects of the rollover problem. However, it is important to understand which portion of the rollover problem can be addressed by each of these three initiatives so that there is a clear and correct understanding of the safety

benefits potentially associated with each of the different types of actions to reduce rollover deaths and injuries.

In August 2005, NHTSA published a Notice of Proposed Rulemaking (NPRM) to upgrade the roof crush requirements of light passenger vehicles. Among the major provisions, the NPRM proposed to extend application of the standard to heavier vehicles, increase the roof strength requirements so that a vehicle would sustain a load equal to 2.5 times its unloaded weight, and require a new headroom criterion. The agency has received a large number of comments from industry, public interest groups, and other parties addressing significant issues related to this proposed rule.

In response to extensive public interest and safety advocate comments on the NPRM, a Supplemental Notice of Proposed Rulemaking (SNPRM) was published on January 30, 2008. The SNPRM modified our original proposal to include consideration of a two-sided test requirement, as well as soliciting comments to allow the agency the potential to go beyond a 2.5 Strength to Weight Ratio (SWR). Subsequent to issuance of the NPRM, the agency conducted extensive testing of current production vehicles to, among other things, determine the effects of two-sided testing and to assess the roof strengths of vehicles currently on the market. These test results were released in the SNPRM.

Since issuance of the NPRM in 2005, NHTSA has collected and analyzed additional crash data, tested the strength of vehicle roofs in the vehicle fleet, completed cost and lead-time studies, and completed other analyses important for the final rule development. The agency is in the final stages of its work to issue the final rule. Because we are still in rulemaking on this Standard, we are not able to discuss specific decisions related to estimates of lives saved, stringency of the requirements, or other issues related to the final rule.

Mr. Chairman, thank you for your consideration and this subcommittee's ongoing efforts to improve highway safety. I would be pleased to answer any questions.