

# TOP TEN MOTOR VEHICLE SAFETY PROTECTIONS IN S. 1072\*

## Making Rollover Prone Vehicles More Stable

### **Section 4156(a)(2) calls for:**

- A safety standard that increases vehicle resistance to rollover;
- Consideration of technologies to improve vehicle handling;
- A study of electronic stability control (ESC) systems

*Rollover crashes account for less than 3 per cent of all crashes but account for one third of all occupant fatalities. Since 1991, over 125,000 people have died in rollover crashes. Between 2000 and 2003 there were over 41,000 rollover fatalities and the number of deaths and injuries is rapidly growing. Popular sport utility vehicles (SUVs) have the highest rollover rates. In fact, SUV occupant fatalities increased by 11 percent between 2002 and 2003, the largest increase in passenger vehicle occupant fatalities.*

## Preventing Serious, Life-threatening Injuries with Better Occupant Protection During a Rollover Crash

### **Section 4156(a)(1) calls for:**

- A safety standard that improves occupant protection in a rollover;
- Consideration of a roof strength standard based on a dynamic roof crush test;
- Consideration of safety technologies such as improved seat structure, belt design including pretensioners and load-limiters, side impact head protection airbags, and roof injury protection measures.

### **Section 4152 calls for:**

- A safety standard to reduce ejection from vehicles,
- Consideration of technologies such as advanced window glass designs and side impact air bags to reduce occupant ejection.

*When a vehicle does roll over, people should be protected by 21<sup>st</sup> century, state-of-the-art safety technology including side air curtains and more protective seat belts, stronger roof designs that can prevent roof crush, and improvements that will prevent ejection which killed over 9,500 people in 2002.*

**\* The Surface Transportation Safety Reauthorization Act of 2004, contained in Title IV, Safe, Accountable, Flexible, and Efficient Transportation Equity Act (SAFETEA) of 2004.**

## **Improving Government Frontal Crash Tests to Prevent Intrusion and Injuries in the Passenger Compartment**

### **Section 4156(b) calls for:**

- A safety standard to improve frontal crash protection for vehicles that weigh up to 10,000 pounds GVWR;
- An evaluation of test barriers, and frontal impact head and neck injuries;
- A review of frontal impact criteria.

*The current government frontal crash test engages the entire vehicle front end. However, in the majority of frontal crashes only part of the vehicle front end strikes an object, such as another vehicle, a tree, or a telephone pole. An offset or partial overlap frontal crash test evaluates the ability of the vehicle frame to protect the occupant compartment's "crush zone" against localized vehicle intrusion to prevent injuries, including severe foot, ankle and leg injuries. The government should propose adding this type of crash test.*

## **Surviving Lethal Side Impact Crashes**

### **Section 4156(c) calls for:**

- An upgrade of the side impact safety standard to improve crash protection for vehicles that weigh up to 10,000 pounds GVWR;
- Test barriers and measurements to improve head and neck protection;
- Consideration of added new crash test dummies of different sizes;
- Review of side impact criteria.

*More than a third of serious to severe injuries sustained each year by occupants are the result of side impact crashes. Improved crash test procedures and test barriers will result in greater head protection and reduce traumatic and fatal brain injuries in a side impact crash. Motor vehicle crashes are the leading cause of traumatic brain injury, accounting for 44 percent of all traumatic brain injuries. There were 9,197 deaths in car and light truck side impact crashes in 2002.*

## **Addressing the Rising Death and Injury Toll that Occurs When Mismatched Vehicles Collide**

### **Section 4155 calls for:**

- A safety standard to reduce the excessive damage, deaths and injuries caused when light trucks crash into smaller cars;
- Consideration of factors such as bumper height, vehicle weight and other elements of crash management in setting a standard;
- Develop a rating metric to evaluate compatibility and aggressivity differences between vehicles;
- A consumer information program for new car buyers that includes ratings, by vehicle make and model, of the risks posed by vehicle incompatibility and aggressivity to occupants of that vehicle, to occupants of other vehicles, and the overall combined risk.

*When a light truck or SUV hits a car in the side, called a "T-bone" crash, the design and safety features of both vehicles should provide equal protection to their occupants. This should also apply in front-to-front crashes between cars and light trucks. Safety in a crash should not depend on what size vehicle you drive.*

## **Reducing the Dangers of Transporting Children, Church Groups, Sports Teams and Others in Unsafe 15-Passenger Vans**

### **Section 4157 calls for:**

- Applying important motor vehicle safety standards to 15-Passenger Vans under 10,000 pounds GVWR other than tow trucks, emergency vehicles, and other non-passenger vans;
- Crash testing 15-Passenger Vans as part of the NHTSA's consumer information program, the New Car Assessment Program (NCAP);
- NHTSA evaluating and testing of technologies, such as ESC, and rollover warning systems to alert the driver.

*With a high center of gravity, 15-Passenger Vans are prone to rollover even when not fully loaded. These vans frequently are used for group outings by schools, religious organizations, and sports teams, as well as for carpooling and airport transportation. Modest changes can provide major improvements in safety.*

## **Stopping Unnecessary Child Deaths and Injuries In and Around Vehicles**

### **Section 4153 calls for:**

- A study of effective methods to reduce incidents in which drivers unintentionally back over children, including an analysis of technology for detecting persons at the rear of vehicles and the cost savings benefits of widespread use.

### **Section 4154 calls for:**

- NHTSA to establish a database of non-traffic, non-accident deaths and injuries.

### **Section 4161 calls for:**

- A grant program to provide funds to eligible states that have enacted a booster seat law in order to promote child restraint education and awareness of child restraint laws, and to purchase and distribute child restraints, including booster seats, free of charge to indigent families.

### **Section 4173 calls for:**

- NHTSA to initiate development of a rollover child test dummy;
- A report on technologies that can prevent deaths and injuries to children left unattended in vehicles, including those from power windows and hyperthermia;
- A report on seat belt technologies that can improve the safety of children 4 and 8 years old;
- A safety standard that requires child-safe power window switches and related-technology.

*In 2002 there were 1,925 children 15 and younger who died in motor vehicle crashes. In 2003, more than 110 children were reported killed in backover incidents and by excessive heat (hyperthermia). Furthermore, one study estimates that only about 17 percent of children over age 4 ride in an age-appropriate child restraint. S. 1072 protects children by requiring child-safe power window switches, letting the driver know what's behind the vehicle before backing up, by educating the public about child restraints and booster seat laws, and by making booster seats available for low-income young children.*

## **Fixing a Flat – Completing Unfinished Tire Safety Improvements Required In The TREAD ACT**

### **Section 4158 calls for:**

- A final rule to include safety performance criteria for tire strength and road hazard protection in the passenger vehicle tire standard;
- A final rule to include safety performance criteria for resistance to bead unseating and tire aging in the passenger vehicle tire standard;
- Reconsideration by NHTSA of the use of shearography analysis for compliance testing for tires.

*Every year more than 300 million new tires are sold in the United States. The final rule issued by NHTSA in response to the TREAD Act falls short of adequately addressing all of the critical issues that determine tire safety. New tire standards should control the long-term deterioration of tires due to storage and natural aging in order to anticipate and control potential tire failures under everyday driving conditions.*

## **Buckling-Up with Safer, More Effective Restraint Systems**

### **Section 4152 calls for:**

- Consideration of safety technologies such as side curtains and side impact air bags.

### **Section 4156 calls for:**

- Consideration of improved safety belt design, including pretensioners and side impact head protection airbags.

### **Section 4159 calls for:**

- A proposed rule to encourage seat belt use including consideration of advanced seat belt use reminder systems.

*In 2003, more than half of the 43,220 people killed in motor vehicle crashes were unbelted. Oftentimes, in rollover crashes, seat belts do not adequately restrain occupants and result in full or partial ejection. These actions by NHTSA will result in improved safety in front and side impact crashes and will promote higher seat belt use rates.*

## **Providing Consumers with Better Safety Information on the Vehicle, in the Showroom**

### **Section 4172 calls for:**

- A safety label on the vehicle at the point of sale that displays star-rating results for each vehicle in the NCAP frontal impact test, side impact test, and the rollover rating.

*Each year, more than 16 million new passenger vehicles are sold in the United States. Consumers want to know about the safety performance of new cars. In a 2001 Lou Harris poll, 84 percent of the respondents favored placing government crash test results on a window sticker of vehicles for sale. The best means of reaching consumers with comparative information on crashworthiness and other performance characteristics is to place the information on vehicle window stickers.*