



**STATEMENT
OF
GENERAL MOTORS CORPORATION**

**Before The
Senate Committee on Commerce, Science and Transportation**

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**Presented by
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I am Robert Lange, Executive Director for Vehicle Structure and Safety Integration at General Motors Corporation. We appreciate the opportunity to be here today to discuss the safety of our sport utility vehicles (SUVs) and related matters.

The issues the Committee has inquired about have recently attracted increased public attention. However, GM has been researching, designing and adding features to our SUVs to address these issues and to help make our SUVs even safer for some time. I will discuss those efforts and our future direction with the Committee, and will talk about the way we approach motor vehicle safety at GM.

Sport Utility Vehicles are important to us and our customers

Sport utility vehicles are very important for General Motors and our customers. GM offers a range of SUVs. Among them are full-sized utilities, such as the Chevrolet Suburban, Chevrolet Tahoe and the GMC Yukon; mid-sized utilities, such as the Pontiac Aztek, Buick Rendezvous, GMC Envoy, Oldsmobile Bravada and Chevrolet TrailBlazer; and smaller sport utility vehicles, like the Saturn VUE and the Chevrolet Tracker. These SUVs are among our most popular models. They provide utility, performance, functionality and other key attributes – including occupant safety – that millions of our customers value and need. They also help to generate the resources that enable us to reinvest in our business, and continue research for advanced safety and alternative fuel development.

Importantly, SUV sales in the United States provide American jobs – roughly 450,000 of them.

During the past decade and a half, sport utility vehicles and other light duty trucks have become increasingly popular among American vehicle purchasers. SUVs represented 24 percent of all new vehicle sales in the U.S. last year. SUVs now represent nearly 12 percent of all registered vehicles here in the U.S.

According to a 2002 R. L. Polk survey, almost 80 percent of SUV owners “frequently” or “sometimes” drive their SUV during harsh weather. In Detroit, we received reports of the recent winter storm here in Washington. The coverage included footage of emergency workers and even the President of the United States traveling in SUVs, while most of the area was paralyzed. According to reports, TV and radio pleas during the storm included appeals for those with SUVs and other four-wheel drive vehicles to help transport hospital and other emergency personnel to work.

These vehicles are useful for many other purposes as well. The 2002 R. L. Polk survey also shows that half of SUV owners use their vehicles to haul tools, appliances or other bulky items. Twenty-four percent use their SUV to carry bikes, kayaks, canoes or skis, or to tow boats, snowmobiles or other items that require a trailer. Fifteen percent of SUV owners have driven their vehicle off road. Significantly, our research shows that on a weekly basis, more SUVs transport children than vans.

Americans choose to buy SUVs because no other type of vehicle provides the same level of safety, capability, comfort and convenience. As a J.D. Power and Associates survey put it: "... the notion that these vehicles are only being used to go back and forth to work or grocery shopping is false. The owners of these vehicles lead very active lifestyles and enjoy the level of comfort and convenience that they cannot receive in a traditional car product."

Sport Utility Vehicles are safe

Some are drawn to purchase SUVs, at least in part, because of the safety they provide. The most recent government data show that today's SUVs are at least as safe as passenger cars overall, and safer than cars in the vast majority of crashes. Just a few months ago, the Insurance Institute for Highway Safety completed a study of driver fatalities in crashes involving one-to-three year old vehicles. The study shows that in 2001, driver deaths per million registered passenger vehicles was 73 for SUVs, 83 for passenger cars, and 130 for pickup trucks. These data indicate that, overall, the fatality rate for SUV drivers is 12 percent lower than the fatality rate for passenger car drivers. From 1981 to 2001, driver fatality rates for one-to-three year old SUVs declined 69 percent, while driver fatality rates for one-to-three year old passenger cars and pickups declined 53 and 40 percent, respectively.

As Administrator Runge recently noted, there is a 97 percent chance that a collision will involve a front, rear or side impact. The safety record for SUVs in these crashes – the vast majority of all vehicle collisions – is exceptional. In 2001, the occupant fatality rate

per 100,000 registered vehicles for passenger cars in front, rear and side crashes combined was 12.17. The fatality rate for SUVs was approximately half that of cars – 6.34. For pickup trucks, the rate was 9.25. So, as drivers head out on this country’s roads today, in the rare event they become involved in a crash, there is an overwhelming likelihood – a 97 percent likelihood -- that the crash will involve a frontal, side or rear collision. In simple terms, the chance of a fatality in an SUV in those crashes is roughly half of what it is in a passenger car.

Rollover rates and what GM is doing about it

Government data show proportionately more fatalities in rollover crashes for light trucks, including SUVs, than for passenger cars. General Motors has recognized this concern and has been addressing it.

GM utilizes specific performance measurements to assess vehicular stability in the design of new SUVs. These measurements are intended to help ensure that the acceleration necessary for an unaided “tip over” is significantly greater than the maximum lateral acceleration the vehicle model can generate on the road. GM has applied these performance measurements to all new GM products since 1999.

Vehicle rollover collisions are overwhelmingly associated with a driver loss of control. This may be caused by inattention, inexperience, or anxiety. After losing control, drivers tend to steer too fast and/or too far for the prevailing road conditions. The vehicle can exceed its adhesion limit; the vehicle response is no longer predictable and recovery can

be difficult. If control cannot be recovered, the vehicle may go off-road; this is the way in which most rollover events take place.

GM and other manufacturers are attempting to help drivers maintain control in such extreme conditions and thereby keep the vehicle on the road. At GM, such systems have various trade names, but all fall into a single category: “Vehicle Stability Enhancement Systems.”

The Vehicle Stability Enhancement System (VSES) is an emerging technology that can help reduce rollover frequency. GM introduced this system in 1997. It is on over two million GM vehicles that are on the road today. Vehicle Stability Enhancement is an advanced computer controlled system that assists the driver with directional control of the vehicle in difficult driving conditions. The system activates when a computer senses a discrepancy between the driver’s intended path and the direction the vehicle is actually traveling. The system then selectively applies braking pressure at any one of the vehicle’s wheels to help steer the vehicle in the appropriate direction.

Another emerging technology that could significantly reduce the likelihood of rollover injuries is the side curtain air bag. In the event of a rollover, the air bag deploys and occupies the space between the occupant and the inside of the vehicle, thereby minimizing the potential for a head injury and reducing the likelihood for a partial ejection. This feature also has much promise for those of us who are concerned about larger vehicle collision with smaller vehicles: the collision compatibility challenge.

Compatibility

GM, like the Committee, is concerned with vehicle crash compatibility between passenger cars and SUVs. These crashes are a relatively minor, but still significant portion of fatal passenger car crashes – six percent. GM has been working to address the compatibility challenge for some time; however, we wish to do so without degrading the overall safety of SUVs or diminishing the popular attributes of SUVs. For example, we have tried to better align the structural elements of SUVs with the passenger car fleet. We have added vehicle structure to spread collision forces broadly across the front of SUVs and thereby reduce point loading on the impacted car structure. These design features also help to reduce the potential for intrusion injury to passenger car occupants. GM is also working to improve passenger car safety by improving side structures and making side curtain air bags available in passenger cars.

In addition to its own SUV safety initiatives, GM is working with industry competitors, the Insurance Institute for Highway Safety, and NHTSA to develop industry wide approaches to SUV collision compatibility. Within months, these efforts are expected to yield common industry standards for SUV collision compatibility and rollover mitigation. GM is eager to cooperatively address these issues with our industry and government.

Promoting safe driving

It is important to observe that the data clearly point to the most effective and immediate way to improve light truck safety: encourage safety belt use and discourage impaired

driving. In 2001, 77 percent (or 1258 of 1639) of those who suffered a fatal injury in a SUV rollover crash were not wearing a safety belt. For pickups, 85 percent (or 1782 of 2100) who suffered a fatal injury during a rollover crash were unbelted. Safety belts have been shown to be 80 percent effective in preventing fatal injuries in light truck rollover crashes. The data on driver impairment are equally eye-opening: 35 percent of fatal SUV rollover crashes, and 85 percent of fatal pickup truck rollover crashes, involved an impaired driver in 2001. This is our greatest and most immediate opportunity to improve the safety performance of SUVs and other vehicles in rollover crashes.

GM is involved in three major public policy efforts to reduce drunk driving and increase seat belt use.

First, we are entering the fourth year of a five-year, \$2.5 million commitment to Mothers Against Drunk Driving to help convey the message that drivers should never operate a vehicle while impaired.

To increase seat belt use, GM has joined its competitors, NHTSA and others to support the National Safety Council's Air Bag & Seat Belt Safety Campaign. The Campaign's signature program, the Operation ABC Mobilization enlists thousands of law enforcement agencies for highly intensive education and enforcement activities in May and November each year. Since the start of the Mobilizations in 1997, the national seat belt use rate has increased from 61 percent to the current all-time high of 75 percent. The

Campaign has worked for passage of primary enforcement seat belt use laws in more than twenty states.

Another major commitment, along with the UAW-GM Center for Human Resources, is to an extensive child passenger safety program with the National SAFE KIDS Campaign. This program, which began in 1996, involves public education and the inspection of child safety seats for proper installation at GM dealerships and community events. We have donated 81 mobile child seat inspection vans to SAFE KIDS coalitions around the country. In addition, the UAW and GM have given 212,000 child seats free of charge to at-risk populations and to those who need new seats. More than 327,000 child seats have been inspected to date.

GM has met the challenge presented by Dr. Runge to improve seat belt use with additional technology. GM will soon start to install additional seat belt reminder technology to encourage higher seat belt use. Our new vehicle fleet will be equipped with these new features to remind all drivers to buckle up on every trip.

Looking to the future

Congress could play an important role in enhancing motor vehicle safety in the short term by encouraging more states to adopt primary enforcement seat belt use laws. Only 18 states and the District of Columbia currently have laws that allow police to enforce seat belt requirements in the same way that they enforce every other traffic law. But since

Chairman McCain discussed state action on primary belt laws at this Committee's hearing on air bag safety in early 1997, only seven states have upgraded their seat belt laws.

If seat belt use could be raised to the 90 percent-plus levels that have been achieved in some states, NHTSA estimates several thousand lives – from rollovers and other types of crashes – can be saved each and every year. There is no technological solution that has nearly the potential for such large-scale injury mitigation. Increased seat belt use would be a meaningful complement to the technology initiatives already being undertaken by the industry.

The last twenty-plus years have taught us that public policy initiatives can improve safe driving. Drunk driving fatalities have been reduced by about 40 percent since 1980 – although recent experience is not positive. In a similar time frame, seat belt use has increased by 60 – 65 percentage points. Congressional assistance in this area would be greatly appreciated and strongly supported by those of us in the motor vehicle safety business, and could be quite significant in contributing to our shared goal of a safer roadway environment.

In the meantime, GM will do its part in continuing to develop and implement technologies to improve vehicle safety.

Thank you.