

**Remarks Prepared for
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**“United States Highway Safety Priorities:
A Comprehensive Approach for Saving Lives”**

**For the
14th Canadian Multidisciplinary Road Safety Conference
June 28, 2004
Ottawa, Ontario, Canada**

- Thank you Derek for that introduction.

*[Derek Sweet, Director General, Road Safety and Motor Vehicle
Regulation Directorate, Transport Canada]*

- I would like to recognize Alan German and Paul Allen for their outstanding work organizing and hosting this conference.
- It is my honor to be the keynote speaker at this: The 14th Canadian Multidisciplinary Road Safety Conference.
- This is the first time that an Administrator from the United States National Highway Traffic Safety Administration has spoken to this conference.
- On behalf of President Bush and Secretary of Transportation Norman Mineta, I am pleased to talk about our # 1 transportation priority in the United States: safety.
- I lead the central agency of the United States Government that is responsible for reducing deaths and injuries on America’s roadways.
- Our method for increasing traffic safety is like the approach taken at this conference – multidisciplinary.
- To examine traffic safety by only talking about vehicle issues would be too restrictive.
- When we analyze all the trends and data that impact on traffic safety, the only approach that emerges is a multidisciplinary one.

- Dr. William Haddon, NHTSA's first Administrator, initially crafted the comprehensive approach.
- It creates a structure along a timeline to examine the pre-crash, crash and post-crash events recognizing the role of the person, the vehicle and the environment.
- Traffic crashes account for 95% of all transportation-related deaths and 99% of transportation-related injuries.
- Crashes are the leading cause of death for American children and adults up to the age of 34.
- Americans are traveling more miles every year.
- In fact, our exposure has increased for all measures including total population and vehicle registrations.
- Even with our exposure measures increasing, the traffic fatality rate has dropped dramatically since the mid-60s.
- By 2003, the rate was 1.5 deaths per 100M VMT, similar to Canada's rate.
- However, overall fatalities rose slightly last year in the United States – the highest level since 1990. Preliminary data show a total of 43,220 people died on American highways, up from 42,815 in 2002.
- Traffic crashes cost the United States economy \$230 billion annually, including:
 - More than \$32 billion in medical costs
 - \$51 billion for impaired driving; and
 - \$20 billion for people who refuse to wear safety belts.
- In recent years there have been substantial changes in the composition of the United States vehicle fleet.
- The mix of passenger vehicles and light trucks in the total fleet is changing. LTV's now account for about 50% of new vehicle sales.
- And within the LTV category, the biggest growth area has been with SUV's.
- This change in the vehicle fleet has caused an increase in rollovers, and has caused fatal and serious injuries, particularly head injuries, to rise as well.
- Rollover crashes are particularly lethal.

- For example, rollover crashes account for just over 2 % of all passenger vehicle collisions but nearly 1/3 of occupant fatalities.
- Data indicate that safety belts significantly reduce ejection during rollovers crashes.
- Vehicle compatibility has become a deadly concern with the rapid change in the fleet.
- If you are in a passenger vehicle involved in a side impact collision, you are about 3 times more likely to die if you are hit by an SUV or pick up than if you are hit by another passenger car.
- In fact, nearly 2/3 of the lives saved would come from increasing safety belt use and reducing impaired driving.
- All of these trends, these data that I have just discussed, have helped us to determine our key highway safety priorities.
- Last year the belt use rate in the United States was 79% -- an all time high.
- One of the reasons we attained this belt use rate was the adoption of your enforcement model *Special Traffic Laws Enforcement Programs* or STEPs in 1991.
- The program grew into our national *Click It or Ticket* program which combines a paid and earned media campaign with stepped up law enforcement during a two-week period.
- We recently completed our 2004 *Click It or Ticket* campaign, and are now in the process of measuring safety belt usage for this year.
- The reason behind our enforcement campaign is clear: safety belts save lives. Unfortunately too many people still refuse to buckle up.
- Of the 32,000 people killed as occupants in passenger vehicles in the United States in 2003, 58% were unbelted.
- About half of those unbelted fatalities would be alive today if only they had buckled up.
- Last year, safety belt use saved about \$58 billion in reduced emergency response costs, medical care and related expenses.
- Conversely, failure to use safety belts resulted in:

- 7,200 fatalities
- 98,000 serious injuries
- In the United States there are 2 types of safety belt laws, primary and secondary.
- Safety belt use is dramatically higher in primary law states.
- You will notice on the slide that Tennessee is at the lower end of primary belt states. This is because they just signed the primary belt bill into law less than three weeks ago. Their belt use was measured before enactment of the law.
- The addition of Tennessee means that we now have 21 states, plus the District of Columbia and Puerto Rico, with primary laws.
- 28 states have secondary laws.
- New Hampshire has no adult belt use law.
- Every 1% increase in national safety belt use in the United States results in:
 - 2.8 million new belt users;
 - more than 270 additional lives saved;
 - reduced severity of more than 4,000 moderate to critical injuries.
- In order to get the optimal amount of life savings benefits that belts provide every state needs a primary safety belt law.
- Our next priority is to reduce alcohol-impaired crashes and fatalities.
- There is an important link between safety belts and reducing fatalities in impaired driving crashes.
- Safety belt use among intoxicated drivers is less than half the rate for sober drivers. Safety belts won't prevent an impaired driving crash, but they can prevent one of every two unbelted fatalities in such a crash.
- The United States was making great progress until about 1994.
- Today, one person dies in an alcohol-related crash about every thirty minutes.
- In 2003 about 17,400 people in the United States were killed in alcohol-related crashes.
- Impaired driving is a complex problem, so it requires a comprehensive solution.

- We focus on 4 key strategies to tackle this problem:
 - High Visibility Enforcement
 - Special Prosecutors and DWI Courts. They reduce recidivism better than incarceration and probation.
 - Screening and Brief Intervention, working with the medical community to detect alcohol misuse and dependency.
 - Primary Belt Laws. They are your best defense against an impaired driver.

- Everything we do is data-driven. We strive for a data system that is reliable, timely, accurate, complete and accessible. Good data improve everything we do.

- Through the years resources have been devoted to improving our data systems, both financial and human resources.

- Safety programs at the local, state and national level can make use of the resulting data for planning, implementation and evaluation.

- The data help us to justify expenditures to Congress, identify emerging safety threats, and evaluate and focus our resources in the problem areas where they are needed most.

- We are developing a strategic plan to steer data system improvements and ensure that we are investing data resources to their best benefit.

- Earlier, I talked about the deadly consequences of rollover crashes. For this reason, reducing rollovers is a key priority of the United States.

- NHTSA is investigating a number of systems designed to reduce rollover occurrences. These include:
 - Design for handling and stability characteristics
 - Electronic stability control
 - Ejection mitigation, including safety belts and window air curtains

- Technologies designed to improve the handling and stability characteristics of the vehicle have the potential to reduce the number of the particularly lethal rollover and single vehicle off-road crashes.

- Single vehicle road departure crashes account for nearly 900,000 crashes per year in the United States. Almost 12,000 of these are fatal crashes.

- Electronic Stability Control applies brakes to individual wheels and reduces engine torque to help correct tendencies for the loss of control.
- There are multiple types of ESC systems on the market today – mainly in the higher end vehicles. NHTSA estimates vehicles equipped with ESC represent only 5 – 10% of today’s new car sales in the United States.
- Some of the ESC systems have a direct effect on susceptibility to reduce what our engineers call “on-road un-tripped rollovers.”
- An even greater potential safety benefit of ESC is in reducing the exposure of vehicles to off-road tripping mechanisms.
- The following two videos show 2 Toyota 4-Runners performing the fishhook maneuver. The fishhook maneuver occurs when a driver turns the steering wheel to avoid an object, then over corrects when turning the wheel back into place. One has the ESC system and the other does not. *[Play videos.]*
- As I discussed earlier, substantial changes in the United States vehicle fleet have made vehicle compatibility one of our most pressing priorities.
- 23% of all fatal crashes in the United States involve a side-impact.
- Moreover, 6 out of 10 result in a brain injury.
- Because of this growing problem, last month I was proud to announce a proposed upgrade to our side impact crash protection standard.
- We estimate that this new standard will save between 700 and 1,000 lives per year when it is fully implemented. The upgrade has the potential to save more lives than any previous rulemaking we have undertaken during my tenure.
- The proposed upgrade is significant for several reasons. It requires greater head protection in side crashes for the first time, while also enhancing chest protection.
- Secondly, the upgrade represents a significant advance in the use of crash test dummies. For the first time, a dummy representing a small female is required in the proposed rule.
- Furthermore, because the risk of death is significant when striking an object such as a tree or a pole, the proposed rule is designed to reduce fatalities not only from collisions with higher riding vehicles, but also with rigid objects.
- This is a critical component to our upgrade because while side impact crashes with poles are small in percentage; they result in a large number of fatalities.

- During our tests for the proposed upgrade to our side-impact standard, the data showed that several late-model vehicles failed to protect both the average male and the small female in a collision at a 75° angle with a rigid object such as a utility pole.
- Our new rule will spur automakers to use a comprehensive set of technologies to increase head protection for vehicle occupants of all sizes who are struck by a range of objects from the side at any angle.
- Our Safety Standards are technology neutral. We determine performance standards. The manufacturers have flexibility to meet the standard in any way they wish.
- Air bag related technologies have the potential to significantly reduce incidence of head injuries and fatalities to vehicle occupants in side impacts as well as in rollover crashes.
- Today's vehicles come with an array of front, side curtain and roof air bags.
- I have a video file which demonstrates the added protection to the head of a small female dummy from a side curtain airbag.
- Although we are proud that over the past 25 years we have saved an estimated ¾ of a million people, we know that the majority of future gains will come from crash *avoidance* technologies.
- In the past, much of traffic safety was based on the crash worthiness of the vehicle. Making the vehicle safer during a collision was the goal.
- Today, with the advance of technology, our safety aim is to avoid the crash altogether.
- Global Positioning Systems are one technology that makes possible Automatic Collision Notification.
- ACN identifies when a crash has taken place, pinpoints the location of the vehicle, determines crash severity and probability of serious injury, and communicates all of this to an emergency response center.
- This technology has a tremendous potential for getting injured motorists to treatment more quickly.
- We have estimated that if all vehicles in the fleet today were equipped with ACN systems, we would save from 500 – 800 lives per year.

- In ACN a camera captures images in real time. Specially designed software then analyzes the image.
- It identifies the position of the vehicle in the roadway, the characteristics of the roadway such as curvature in the road, and the presence and position of other vehicles in the visual field.
- A system of Dedicated Short-Range Communication offers these capabilities:
 - Vehicle to Vehicle communication
 - Vehicle to Road communication
 - Alerts on Hazards Ahead
 - Alerts on Traffic Congestion
 - Weather Information
 - Alerts about Slick Roads
- DSRC technology is being actively researched by the industry and should be available soon. Government has a valid role to play in enabling this technology. However it is the manufacturers that must bear the burden of selling it.
- I would like to take a moment to discuss United States' traffic safety efforts in the international arena.
- Fatalities resulting from motor vehicle crashes are not just an American problem, but are a worldwide pandemic.
- Working in collaboration with partners like Canada is not only a priority of ours, but will also lead to saving lives across the globe.
- To combat this serious problem, NHTSA is identifying, developing and adopting information about best practices around the world for vehicle safety research, regulatory standards, and traffic safety policies, as well as global harmonization of standards and regulations.
- Another example that the world is coming together around traffic safety was the recently passed resolution on Road Safety and Health by the World Health Organization. The resolution recognizes that road safety is a public health issue.
- No one should be misled into thinking that traffic injury and death are inevitable consequences of living in a motorized society.

- Speaking at the United Nations about World Health Day, Secretary of Transportation Norman Mineta recently told the General Assembly “morbidity should not be the price of mobility.”
- The United States will not accept 43,000 highways deaths each year.
- It all comes down to one thing – saving lives. Saving lives is our mission.
- Thank you.