

## Rural Roadways: Not Just a Drive in the Country

Ronald J. Saacke

Recently, my uncle explained to me how he goes to great lengths to avoid Interstate highways when traveling. Incredible crashes reported in the news, combined with higher speeds and more traffic, make travel on Interstates nerve-racking at best. As I travel around Virginia visiting Farm Bureau members, I find a lot of motorists like my uncle. Unfortunately, by leaving the Interstate for the relaxing pace of the country, many drivers unknowingly steer onto roads that present hazards more numerous and sometimes more unpredictable. In fact, the death rate on the Interstate is less than one-third of that on two lane roads.<sup>1</sup> Furthermore, the Insurance Institute for Highway Safety reports that in 1996, 63 percent of the deaths in roadside-hazard crashes occurred on rural roads.

Each year the National Safety Council reports that motor vehicle crashes are the number one cause of accidental deaths and the number one cause of on-the-job death and injury. In spite of safer cars and better highways, the cost of motor vehicle crashes on all types of United States roads exceeded \$170 billion in 1995. The same amount of money could have purchased 730 gallons of gasoline for each registered vehicle or given a \$19,700 rebate on every new car purchased that year.

In Virginia, the Department of Motor Vehicles estimates that 869 persons were killed and 82,363 were injured as a result of 131,088 motor vehicle crashes in 1996. Based on these figures, in the time it takes to read this newsletter, 3 to 4 crashes will be reported, 1 every 4.02 minutes; and by the end of today, 2 to 3 lives will be lost and 225 people injured. The total cost to Virginians of nearly \$3 billion a year should put motor vehicle safety at the top of the list of our priorities (Va. DMV).

<sup>1</sup> Death rate is calculated using the number of deaths per hundred million vehicle miles driven. The Interstate death rate is 0.74 and the death rate for two lane roads is 2.3. Roadway Safety Foundation, Feb. 1997.

In the rural part of Hanover County where I live, it seems that a new house is built on a ten acre plot every week. Motorists commuting to and from Richmond exit Interstate 64 after traveling 65 to 75 miles per hour and tend to maintain these speeds all the way home. I am also guilty of becoming "comfortable" with Interstate speeds and traveling in excess of the 45 mile an hour speed limit on the two lane road leading to my small community of Rockville.

In 1996, rural areas throughout Virginia experienced increased traffic traveling at higher speeds, which led to an over 3 percent increase in crashes from the previous year (Va. DMV). Those communities within 50 miles of larger populations, such as Rockville, or those on "short-cut" routes for vacation travelers seem to have the worst problems. Many commuters and travelers bring with them the more aggressive driving habits of the city and a lack of knowledge of rural hazards. Even some motorists raised in the country have given up defensive driving habits and do not always display the common courtesies that can make a drive in the country safe and enjoyable.

### What makes rural roads more dangerous than the Interstates?

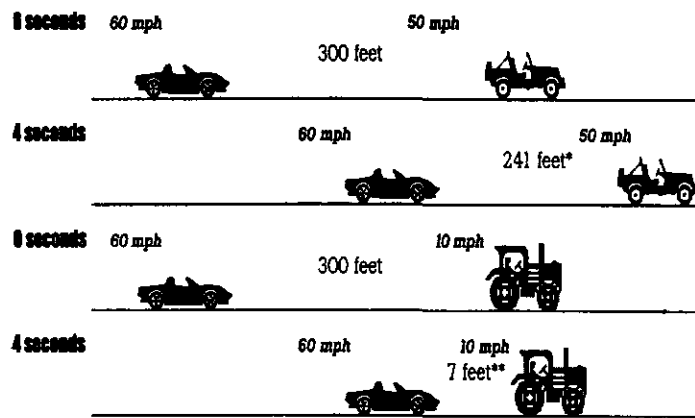
The condition of rural roadways presents numerous challenges for commuters and long-time residents alike. For instance, the average rural roadway has narrow lanes, unmarked pavement, hazardous roadsides with more obstacles, low or missing shoulders, and steeper grades and sharper curves than Interstates and other major highways. Additionally, people walking and biking and animals crossing from all directions make driving safely on rural roads a difficult task.

At any time of the day in the spring, summer, and fall, tractors and other farm equipment are not uncommon on rural roads. Most of these tractors and combines travel at 10 to 15 miles per hour

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and often pull equipment that is wider than their half of the road. Slow-moving vehicles and other farm equipment are hazards seldom experienced on major highways or in the city. I constantly remind my wife, who grew up in the city, that blind curves require extra caution and that slower speeds allow greater reaction time for unforeseen hazards. Unfortunately, the over 98 percent of Virginians who are not involved in agriculture may not have someone reminding them of the hazards that exist when approaching slow-moving vehicles. Two cars, 300 feet apart and a car and a tractor, also 300 feet apart, are compared in Figure 1. In four seconds, the two cars are still 241 feet apart while the car and tractor are less than 7 feet apart. If reaction time is slowed or distance to recognition is decreased by a blind curve, lack of attention, alcohol, or some other distraction, little chance of avoiding a crash exists.

**Figure 1. Time required to approach another vehicle moving at a slower speed.**



\*actual distance equals 241.333 feet  
 \*\*actual distance equals 6.667 feet

Graphic courtesy of VFB Safety.

Virginia law permits farm vehicles to travel on public roads for agricultural purposes and has special provisions for transporting wide vehicles and equipment (Va. Codes § 46.2-1081 and § 46.2-1102). Farmers must use these roads to move from one field to another as they continue to supply us with the safest and least expensive food and fiber in the world. However, many motorists do not recognize, and many farmers do not display, the universal symbol for slow-moving vehicles. The result is an increasing number of crashes between agricultural equipment and other motor vehicles each year. The bright orange and reflective red triangular emblem is required by law on all motor vehicles that are designed to and are normally operated at speeds less than 25 miles per hour on the public highways. This emblem is designed to alert drivers of faster vehicles to the difference in speed and to give them ample time to adjust to the speed of the slow-moving vehicle.

In my travels for Farm Bureau, I have also noticed that tractor-trailers carrying products throughout Virginia are using rural roadways. The hazards created by large trucks using high access, four-lane highways and two lane rural roads are enormous. Most truckers, given the weight they haul and the size of their vehicles,

do not have the ability to stop or maneuver as well as the typical passenger car driver. Unfortunately, many motorists do not understand the limitations of tractor-trailers and fail to leave buffer zones large enough to protect themselves. In 1996 there were 4,390 tractor-trailer crashes or 3.3 percent of all crashes, but 72 were fatal crashes representing 9 percent of the total fatalities. Of the 82 people killed in tractor-trailer crashes, 69 were not tractor-trailer occupants (Va. DMV, 1996).

Driver intoxication is still a major problem on all roadways as alcohol-related crashes claimed 346 lives and injured 9,083 people in Virginia last year (Va. DMV, 1996). Another growing problem in areas where traffic volume is up and people are commuting greater distances is "Road Rage." Frustrated drivers are reacting in anger and creating situations where more mistakes and crashes occur. But the newest hazard is not as obvious as Road Rage: the expanding use of cellular phones while operating motor vehicles. These phones may reduce reaction time and divert attention from the driving task. Crashes caused by drivers in all three of these situations cannot be classified as *accidents* but rather as *negligence*.

### Businesses and individuals pick up the cost

Motor vehicle crashes cost businesses an estimated \$55 billion per year. According to the National Highway Traffic Safety Administration (NHTSA), on-the-job crashes cost employers almost \$22,000 per crash and \$110,000 per injury due to lost productivity and higher insurance and medical costs. Even off-the-job crash injuries cost employers over \$14 billion per year.

The agricultural industry alone absorbs over \$3 billion a year due to on-the-job motor vehicle crashes. The injuries, damage to equipment, and lost time in the field as a result of motorist/tractor crashes increase the cost of farming and reduce our agricultural efficiency

Nearly 67 percent of Virginia motorists wear seat belts and most of these seatbelt users are classified as "good" drivers—drivers less likely to be involved in accidents. The remaining 33 percent, who do not wear seat belts, accounts for over 60 percent of the fatalities. Furthermore, their average in-patient hospital costs are 50 percent higher than for a belted victim. Society bears 85 percent of this cost, not the individuals involved (U.S. Dept. of Transportation).

In spite of "safer" cars and government efforts to improve highway safety, the \$170 billion price tag for our nation's 1995 motor vehicle crashes was nearly twice the \$89 billion spent in 1990. In Virginia, the \$3 billion dollars spent on motor vehicle crashes in 1996 can be translated into a cost of over \$600 per licensed driver. It now makes sense why, in spite of our "good" driving records, my wife and I pay about \$1,200 a year for auto insurance.

### What can we do to reduce the cost?

Safety belts are credited with saving an estimated 9,500 lives across the nation annually, and seat belt use is the single most effective way to prevent loss of life and reduce serious injuries on

all types of roadways. In August this year, NHTSA kicked off the "Buckle Up America" campaign with President Clinton setting a goal to raise national seat belt use to 85 percent by the year 2000 and 90 percent by 2005. The success of this program could save an additional 5,536 lives, prevent 132,670 injuries, and save an estimated \$8.8 billion per year. NHTSA estimates that changing Virginia's law to increase seatbelt usage could prevent 81 deaths and 1,893 injuries, and save over \$136 million annually (U.S. Dept. of Transportation).

As part of the "Buckle Up America" campaign, NHTSA stresses that businesses have the greatest potential to lower the cost of motor vehicle crashes through educational and incentive programs for employees. Some businesses whose employees use company vehicles are acting to reduce the cost of crashes by requiring seat belt use and good driving records. These efforts have had a positive impact on their bottom line, and they have found that overall employee morale is better when accidents are reduced. Even where the business does not supply a company vehicle, savings to the employer in health insurance, disability and life insurance, sick leave, and lost productivity far outweigh the cost of motor vehicle safety programs.

Virginia Farm Bureau Safety and Virginia Farm Bureau Insurance Services have developed programs to make traveling rural highways safer, including below cost child safety seats, a \$1,000 savings bond in the Teenage Driver Commitment Program, farm safety inspections, rollover protective structure (ROPS) grants, and slow-moving vehicle emblems for tractors. Farmers who have made safety a top priority have realized an across-the-board decrease in the number of accidents both on and off the road. The result is a significant savings in insurance rates and an increase in productivity. Non-farm individuals also benefit by protecting their children and by auto insurance premiums remaining low.

As businesses work to reduce the overall cost of motor vehicle crashes and programs such as those offered by Virginia Farm Bureau become widespread, individuals will be encouraged to do their part. I can take responsibility for only one motorist to ensure that he drives slowly, watches for rural hazards, and wears his seat belt--myself. All of us must take responsibility for ourselves, drive defensively, and "buckle up" to reduce the cost of motor vehicle crashes.

### **Consider making a change in driving habits**

The difference in time using defensive driving techniques compared to normal travel time can become insignificant when the cost is considered. A few extra minutes of travel may save your life or the life of someone you love. The following driving tips need to be followed when driving.

- Slow down! Even if the rural road is posted at 55 miles per hour, reducing speed slightly may provide the time needed to avoid a crash and ultimately speed up the trip.

- Use the "two-second" rule to avoid tailgating. When the car in front passes a fixed object, you should be able to count two full seconds before you reach the object. Let tailgaters pass so that you are not included in their crashes.
- Watch for slow-moving vehicles and other farm machinery. Be patient when traveling behind farm machinery--the additional few minutes is approximately equal to stopping at a couple of traffic lights.
- Be aware of the stopping and turning limitations of tractor-trailers, and stay clear of the areas where their drivers cannot see your vehicle.
- Always expect a hazard to be waiting on the other side of a blind curve--adjust your speed accordingly, and be prepared to react.
- Be prepared for hazards such as potholes, low or soft shoulders, and animals in the road.
- Remain calm, even if the other driver did something "stupid." Your reaction may fuel road rage and increase your chances of making mistakes.
- Pull over to make cellular phone calls.
- Keep your vehicle properly maintained. Equipment failure increases the risk of crashes.

### ***When carrying children in your car:***

- Virginia law states that children under the age of four must be properly secured in a federally approved child restraint seat (Va. Code § 46.2-1095). Not all child safety seats are compatible with all vehicles. Read the vehicle owner's manual prior to purchasing and installing a child safety seat. Approximately 80 percent of the child seats are installed and used incorrectly.
- *Never* place a rear-facing infant seat in the front seat of a vehicle equipped with a passenger-side air bag.
- All children ages 4 through 15 must be properly secured by an appropriate seat belt, according to a 1997 amendment to the Virginia law. Children under 13 are safest when buckled in the back seat.
- If an older child must ride in the front seat of a vehicle with a passenger side air bag, move the seat back as far as possible and use both lap and shoulder belts.

### ***And for adults:***

- Remember that air bags are only supplemental protection and can actually increase the danger of injury or death if seat belts are not used. Be sure to always "Buckle up."
- Keep as much distance as possible between you and the air bag so that it has time to deploy fully. NHTSA recommends allowing at least 12 inches between your chest and the air bag module.

### **Acknowledgement**

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## Notices

**\*\*New REAP Report:** *Rural Virginia: Providing for the Future through Changing Policy* outlines the current problems facing rural Virginia and offers potential solutions for these problems.

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