



*2007-09  
Safety  
Action Plan  
to Reduce  
Truck-at-Fault  
Crashes*



*Oregon Department of Transportation  
Motor Carrier Transportation Division*



**2007-09**  
***Safety Action Plan***  
***to Reduce***  
***Truck-at-Fault Crashes***



**T** *the mission of*  
**ODOT Motor Carrier**  
TRANSPORTATION DIVISION

PROMOTE a safe, efficient, and responsible transportation industry by:

- Simplifying compliance
- Reducing regulatory requirements when appropriate
- Preserving the infrastructure
- Enhancing private/public partnerships
- Fostering effective two-way communication

DELIVER superior customer service while recognizing the vital economic interests of the commercial transportation industry.



# Executive Summary — 1

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**Truck crashes and truck-at-fault crashes have been steadily increasing in recent years.** While total truck miles traveled increased 8% from 2001 through 2006, the truck crash rate increased 23% and the truck-at-fault crash rate increased 22%. In 2006, there were 0.394 truck-at-fault crashes per million miles traveled in Oregon (pages 1-2).

Year after year, certain truck crash statistics are consistent. For example, **far more truck-at-fault crashes are caused by truck driver actions than by mechanical problems with the truck.** Regardless of who's at-fault, speed is commonly listed as the leading cause of crashes along with following too closely and failing to remain in lane or improper lane change (page 3).

**There are 12 areas of the state where a higher than average number of truck crashes occur.** From 2001 through 2006, these highway sections, which span a total of 265 miles, were the scene of 882 truck crashes, including 486 truck-at-fault crashes. Safety officials working under the Motor Carrier Safety Assistance Program (MCSAP) focus their enforcement efforts on these areas, which they refer to as AIM Corridors — Accident Intensified MCSAP Corridors (page 4).

**At the heart of this action plan is another more focused plan for reducing truck crashes — Oregon's annual Commercial Vehicle Safety Plan.** The current plan for federal fiscal year 2008 recognizes truck driver behavior as Oregon's most glaring safety problem since it accounts for 94% of all truck-at-fault crashes in the past six years. It details both state-specific and national program activities that will guide safety efforts (pages 5-17).

**A Large Truck Crash Causation Study confirms that driver actions, either the truck driver or the other driver, are to blame for most truck crashes.** While Oregon inspectors need to stay aggressive in inspecting trucks and trailers in order to keep mechanical-caused crashes to a minimum, their chief focus should be on the truck driver (pages 19-20).

**Checking truck drivers' behavior and fitness holds the greatest promise for reducing truck-at-fault crashes.** Checking car drivers' behavior while sharing the road with trucks holds the greatest promise for reducing the remaining truck crashes (page 21).

**The Motor Carrier Transportation Division has long focused on drivers as the root of the problem with truck crashes.** One key performance measure tracks truck-at-fault crashes and truck drivers placed out-of-service for critical safety violations because they're statistically

The Oregon Department of Transportation, Motor Carrier Transportation Division, has developed this Action Plan to raise awareness and educate everyone about the current safety problem and the various ways to address it. In the next two years, Oregon will **assess the problem** and closely monitor crashes, **plan ahead** in order to direct efforts most effectively, **focus on the driver** as the root cause of most crashes, **rally the partners** who can assist, **help enforcement officers** with the tools they need to efficiently do their job, **get creative** and try new approaches, **listen up** for ideas and suggestions, **encourage the innovators** who are identifying problems and solutions, and work to **educate** the public and the industry.

correlated. As more unsafe drivers are found and taken off the road, truck-at-fault crashes decline. The degree of attention paid to truck drivers is apparent in the number of Level 3 driver inspections conducted. Division inspectors alone completed 39,406 inspections in 2006 and 27% of them were Level 3 inspections of truck drivers. The time was well spent as 18% of the inspections placed a driver out-of-service. State Police troopers found a greater percentage of problems, as 22% of the drivers they inspected had a critical safety violation (page 22).

**In terms of the types of inspections conducted in 2006, Oregon compares favorably with national totals.** In terms of results, Oregon inspections yielded out-of-service rates that were remarkably higher than national rates (page 23).

**Considering the recent rise in truck-at-fault crashes, the Motor Carrier Division is redoubling its efforts to shine a spotlight on drivers.** One new strategy mentioned in the 2008 Commercial Vehicle Safety Plan is to hold more special inspection blitzes involving law enforcement officers, safety specialists, and motor carrier enforcement officers (page 24).

**Oregon State Police are on the front lines of the fight to reduce truck crashes.** In recent years, OSP enforcement activity has been more constrained by the number of troopers available than by funding to support their work. In 2007, legislators increased the federal grant funds directed to the agency and approved the hiring of 100 more troopers. In 2006, troopers checked 15,846 trucks and drivers and found violations in nearly 3 of every 4 inspections (pages 27-29).

**Oregon is fortunate to have many resources supporting its safety efforts, particularly the Motor Carrier Safety Assistance Program (MCSAP).** In 2008, it provides Oregon with \$2,414,707 in federal funds for traffic enforcement and other safety efforts like OSP's Operation Trucker Check, a multi-day exercise that targets driver impairment related to alcohol, drugs, or fatigue. The first Trucker Check was held in 1998. The 12th one, in April 2007, provided evidence that about one in ten drivers had controlled substances in their system. MCSAP funds also support operations like the CVSA's annual Roadcheck inspection blitz (pages 31-33).

**The Oregon partnership in the fight to reduce truck crashes includes about 1,000 carriers with exceptional safety and regulatory compliance records — the Trusted Carrier Partners.** This unique-to-Oregon program is part of the Green Light weigh station preclearance program that helps enforcement officers manage a growing stream of traffic (pages 34-35).

**Inspectors need ready access to the best information available about motor carriers and drivers and Oregon inspectors have the nation's best software tools for picking out high-risk carriers and assisting truck enforcement activity** (pages 37-39).

**The Motor Carrier Transportation Division has long employed a number of strategies to enhance truck safety, but it's reaching out more than ever before to engage everyone and rally new ideas.** It's conducting brainstorming sessions and surveys, as well as opening an online suggestion box. It's encouraging safety innovations. In coming years, the Oregon public information campaign will feature a number of different messages spread a number of different ways (pages 41-53).

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# 1. Assess the problem

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The incidence of truck crashes and truck-at-fault crashes has been steadily increasing in recent years. While trucks traveled an increasing number of miles in Oregon, they were involved in an increasing number of crashes with a fatality, injury, or damage requiring that a vehicle be towed away.

## *From 2001 through 2006:*

- Total truck miles traveled increased 8% — from 1,760 million to 1,908 million.
- Truck crashes increased 33% — from 1,053 to 1,402.
- Truck-at-fault crashes increased 32% — from 568 to 751.
- The truck crash rate increased 23% — from 0.598 to 0.735 per million miles traveled.
- The truck-at-fault crash rate increased 22% — from 0.323 to 0.394 per million miles traveled.

### Truck Miles Traveled — Millions

|  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  |
|--|-------|-------|-------|-------|-------|-------|
|  | 1,760 | 1,665 | 1,742 | 1,801 | 1,874 | 1,908 |

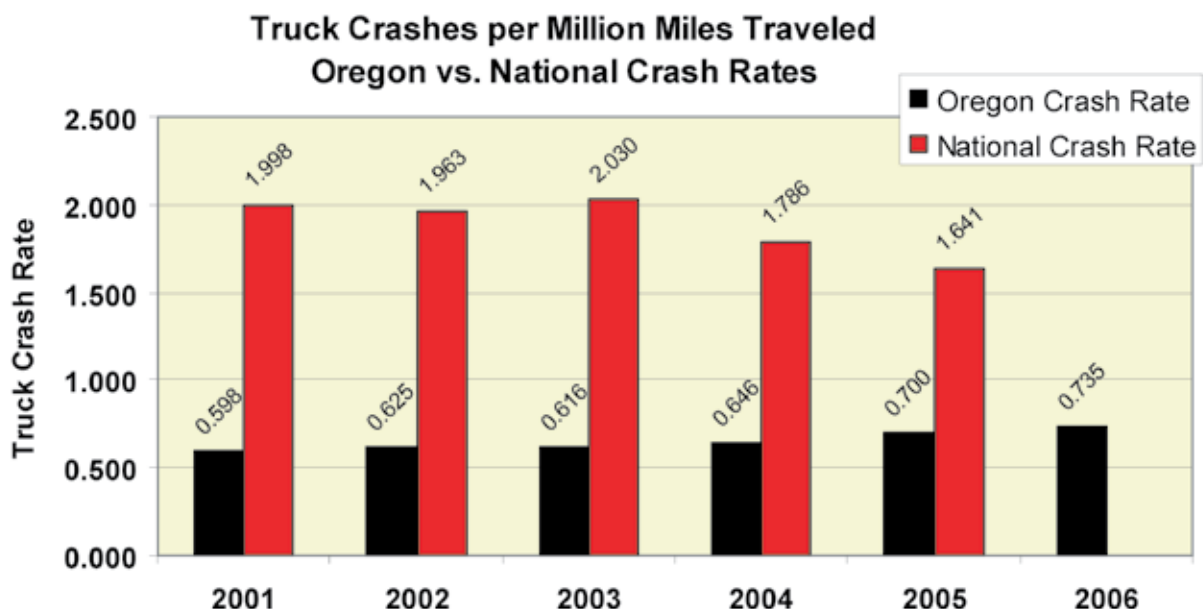
### Crash Summary

|                               |       |       |       |       |       |       |
|-------------------------------|-------|-------|-------|-------|-------|-------|
| <b>Truck Crashes</b>          | 1,053 | 1,038 | 1,075 | 1,162 | 1,310 | 1,402 |
| <b>Injuries</b>               | 496   | 522   | 509   | 547   | 579   | 647   |
| <b>Deaths</b>                 | 68    | 57    | 67    | 53    | 66    | 63    |
| <b>All Crashes</b>            |       |       |       |       |       |       |
| Truck Driver At-Fault         | 533   | 521   | 548   | 600   | 654   | 705   |
| Truck Mechanical Fault        | 35    | 36    | 37    | 25    | 29    | 46    |
| Other Driver At-Fault         | 411   | 422   | 440   | 486   | 552   | 582   |
| <b>Fatal Crashes</b>          | 55    | 46    | 50    | 46    | 61    | 49    |
| Truck Driver At-Fault         | 14    | 12    | 17    | 11    | 16    | 17    |
| Truck Mechanical Fault        | 0     | 1     | 1     | 1     | 1     | 2     |
| Other Driver At-Fault         | 31    | 28    | 31    | 29    | 37    | 28    |
| <b>Hazmat Crashes</b>         | 32    | 42    | 26    | 35    | 46    | 47    |
| <b>Hazmat Spill/Release</b>   | 9     | 9     | 6     | 4     | 6     | 8     |
| <b>Other Load Spills</b>      | 89    | 83    | 97    | 114   | 108   | 101   |
| <b>Oregon-Based</b>           |       |       |       |       |       |       |
| <b>Carrier Crashes</b>        | 577   | 608   | 592   | 622   | 740   | 785   |
| <b>Foreign-Based</b>          |       |       |       |       |       |       |
| <b>Carrier Crashes</b>        | 476   | 430   | 483   | 540   | 570   | 617   |
| <b>Single-Vehicle Crashes</b> | 299   | 275   | 288   | 317   | 357   | 351   |

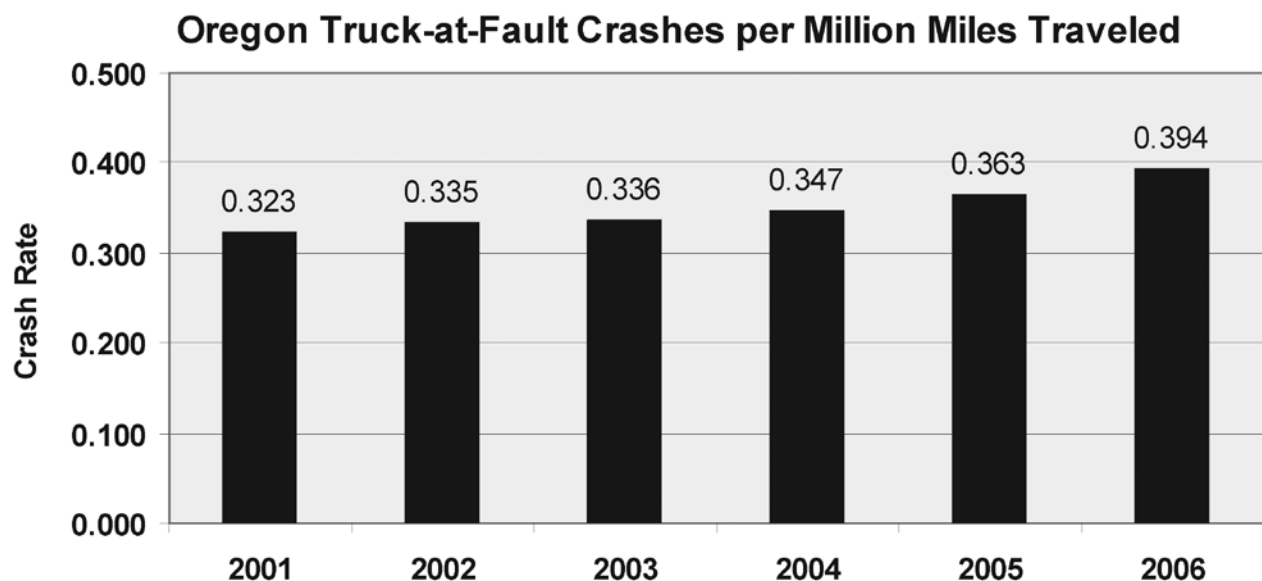


## assess the problem

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Comparing Oregon's truck crash rate with the national rate provides important context to any assessment of the problem. In terms of total truck crashes in 2005, the last year national totals are available, Oregon's crash rate was 57% lower than the national rate. The national rate is trending down, however, while Oregon's is trending up slightly.



Oregon's truck-at-fault crash rate is also trending up slightly.

Oregon is unaware of any other state that analyzes crashes and assigns fault and it's not done at the national level so there's no information available to compare Oregon's truck-at-fault rate with other rates.



Year after year, certain truck crash statistics are consistent and predictable. For example, far more truck-at-fault crashes are caused by truck driver actions than by mechanical problems with the truck. While some of these consistent outcomes are bedeviling, they do allow safety efforts to focus on particular problems.

Here's what's consistent about truck crashes in Oregon:

- When the truck is at-fault in a crash, it's almost always the truck driver's fault. Truck mechanical problems led to only 46 truck-at-fault crashes in 2006. Year after year, only about 2% of all truck crashes are linked to mechanical problems.

- Regardless of who is at-fault, speed is commonly listed as the leading cause of truck crashes. Two other common causes are following too closely and failing to remain in lane or improper lane change.

- When there's a truck crash in Oregon, it's more likely to involve an Oregon trucking company rather than an interstate operator based outside the state. Over the past six years, Oregon-based trucks were involved in 56% of all truck crashes.

- A truck crash in Oregon rarely involves a triple trailer combination. In 2006, that configuration was involved in only eight crashes, although they resulted in six injuries and one death and four of the crashes were truck-at-fault crashes. Based on the 34.8 million miles triple trailers traveled in Oregon in 2006, the combinations were involved in crashes at a rate of 0.229 per million miles.

- A truck crash in Oregon rarely involves a farm truck. F-plated trucks were involved in only 11 crashes in 2006, although they resulted in eight injuries and one death.

## At-Fault in Truck Crashes — 2006

| At-Fault                      | Crashes      |     |
|-------------------------------|--------------|-----|
| Commercial Vehicle Driver     | 670          | 48% |
| Other Driver                  | 582          | 42% |
| Both Drivers                  | 35           | 2%  |
| Commercial Vehicle Mechanical | 46           | 3%  |
| Auto Mechanical               | 3            |     |
| Other (Weather/Animal)        | 32           |     |
| Unknown                       | 22           |     |
| Pedestrian                    | 8            |     |
| Bicycle                       | 4            |     |
|                               | <b>1,402</b> |     |

## Causes of Truck Crashes

| Cause   | Crashes      |     |
|---|--------------|-----|
| Speeding                                      | 343          | 24% |
| Following too closely                         | 239          | 17% |
| Fail to remain in lane / Improper lane change | 169          | 12% |
| Fail to yield right of way                    | 153          | 11% |
| Disregard sign                                | 110          | 8%  |
| Improper turn                                 | 65           | 5%  |
| Sleep / Fatigue                               | 59           | 4%  |
| Improper pass                                 | 50           | 4%  |
| All other causes                              | 214          | 15% |
|   | <b>1,402</b> |     |

## Truck Crashes by Configuration

| Configuration             | Crashes      | Injuries / Deaths |
|---------------------------|--------------|-------------------|
| Tractor / Semi-Trailer    | 857          | 355 / 39          |
| Truck                     | 286          | 162 / 13          |
| Tractor / Double Trailer  | 106          | 40 / 4            |
| Truck and Trailer         | 100          | 59 / 6            |
| Bus                       | 8            | 3 / 0             |
| Heavy Haul                | 13           | 3 / 0             |
| Bobtail                   | 23           | 19 / 0            |
| Tractor / Triple Trailers | 8            | 6 / 1             |
| Saddlemount               | 1            | 0 / 0             |
|                           | <b>1,402</b> | <b>647 / 63</b>   |

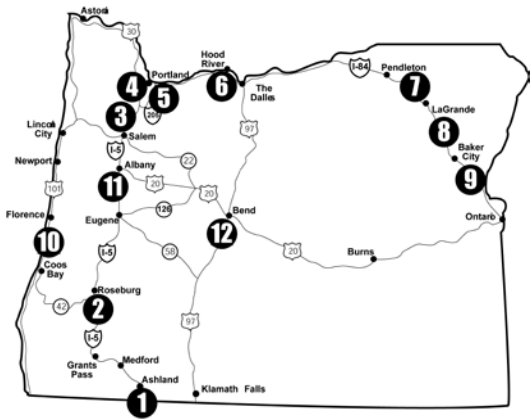
# assess the problem

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## AIM Corridors — Accident Intensified Motor Carrier Safety Assistance Program

There are 12 areas of the state where a higher than average number of truck crashes occur. Safety officials working under the Motor Carrier Safety Assistance Program (MCSAP) focus their enforcement efforts on these areas, which they've historically referred to as AIM Corridors — Accident Intensified MCSAP Corridors.

1. Siskiyou Summit, I-5, MP2-9
2. Weaver to Roberts Mountain, I-5, MP108-117
3. Salem, I-5, MP252-260
4. Tualatin to Portland, Marquam Bridge, I-5, MP289-300
5. West Linn to Clackamas, I-205, MP8-14
6. Hood River to Mosier, I-84, MP63-73
7. Emigrant Hill, aka Cabbage Hill, I-84, MP219-228
8. Ladd Canyon, I-84, MP270-278
9. Nelson Point to Weatherby, I-84, MP331-340
10. North Bend to Coos Bay, US101, MP233-243
11. Eugene, I-5, MP168-208, and Lane County, OR58, MP1-62
12. Deschutes County,  
US20, Sisters to Bend and Bend to 10 miles east of Bend  
US97, Terrebonne to LaPine, Deschutes County



### ***In the six-year period from 2001 through 2006:***

- These 12 highway sections, which span a total of 265 miles, were the scene of 882 truck crashes, including 486 truck-at-fault crashes. That represents 12.5% of all crashes involving trucks and 12.9% of all truck-at-fault crashes.
- The most crashes occurred in AIM Corridor #11, which encompasses 101 miles on I-5 and OR58 in Lane County. There were 221 truck crashes in this six-year period, including 123 truck-at-fault crashes.
- The Portland area presents two trouble spots. AIM Corridor #4, which encompasses 11 miles on I-5, experienced 125 truck crashes, including 68 truck-at-fault crashes. AIM Corridor #5, which encompasses six miles on I-205, experienced 88 truck crashes, including 47 truck-at-fault crashes.
- AIM Corridors #1, #7, #8, and #9 — Siskiyou Summit, Emigrant Hill, Ladd Canyon, Nelson Point to Weatherby — are high-elevation highway sections that are especially dangerous during the Fall and Winter months of October through March. They combined for 204 truck crashes in this six-year period, including 148 truck-at-fault crashes.



## 2. Plan ahead

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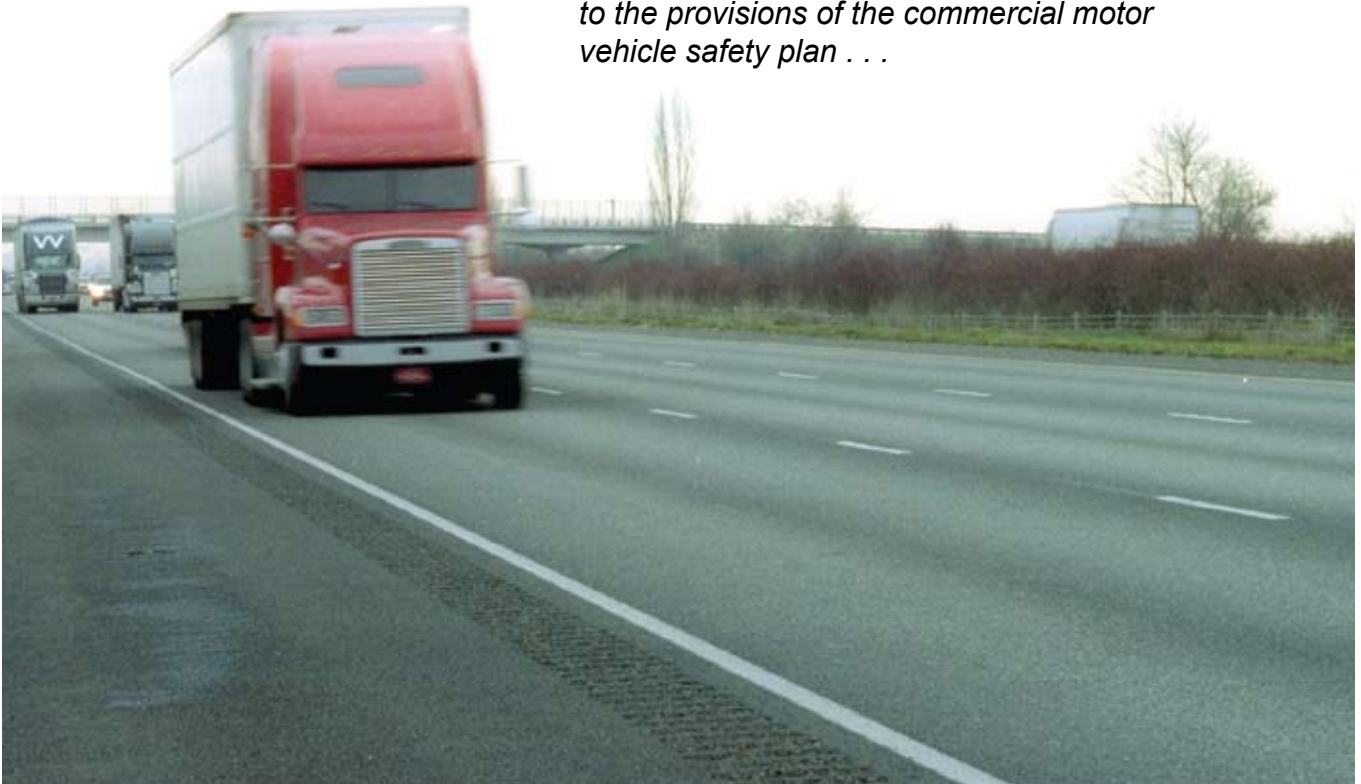
At the heart of this action plan is another more focused plan for reducing truck crashes. The ODOT Motor Carrier Transportation Division annually produces a Commercial Vehicle Safety Plan that outlines the problems to be addressed and objectives to be achieved in order to have the greatest positive impact on Oregon commercial vehicle safety. The plan describes what should be the focus of safety efforts in the next year.

The current plan for federal fiscal year 2008 recognizes truck driver behavior as Oregon's most glaring safety problem since it accounts for 94% of all truck-at-fault crashes in the past six years. To combat this, the plan calls for continuing intensive traffic enforcement operations and regular, multi-day, around-the-clock hours-of-service operations on Oregon's major freight routes. The plan also calls for new tactics to reduce the number of truck crashes caused by car drivers in the Portland metropolitan area.

### **Safety Plan — Background**

Since 1984, Oregon has produced a Commercial Vehicle Safety Plan as part of its obligations as a state receiving federal Motor Carrier Safety Assistance Program (MCSAP) grant funds. But the Plan is also required by Oregon law:

**ORS 825.248** — (1) *The Department of Transportation shall develop an annual commercial motor vehicle safety plan. The goal of the plan is to reduce accidents involving commercial motor vehicles and to reduce injuries and fatalities resulting from accidents. . . (2) In conducting inspections . . . a person who is trained and certified as a commercial vehicle inspector . . . shall adhere to the provisions of the commercial motor vehicle safety plan . . .*



## 2008 Commercial Vehicle Safety Plan — State-Specific Program Activities

Oregon law enforcement officers and safety inspectors need to particularly focus on four state-specific objectives that seek to reduce crashes and related problems by 5%:

**1** Oregon continues to experience a high number of speed-related truck-at-fault crashes on the state's three major freight routes — I-5, I-84, and US97. Speed was the cause of 105 truck-at-fault crashes on these routes in fiscal year 2006, more than double the number of speed-related crashes that occurred there in 2005.

**Objective:** Reduce speed-related truck-at-fault crashes on I-5, I-84, and US97 by 5% for fiscal year 2008, compared with the two previous fiscal years.

### Activity and Performance Measure:

- Law enforcement officers conduct commercial motor vehicle traffic enforcement operations throughout the year on I-5, I-84, and US97, with particular focus on speed violations. They conduct Level 2 and 3 truck and driver inspections in conjunction with the probable cause stops.
- Law enforcement officers, safety specialists, and motor carrier enforcement officers conduct special monthly Hazardous Violation Exercises on I-5, I-84, and US97. Inspectors conduct all levels of inspections in other special operations throughout the year at Ports of Entry and other fixed scale locations along these major freight routes.
- Track the number and location of traffic stops, citations and warnings issued as a result of probable cause stops, including the number related to speeding. Track the total violations found in inspections and the number of drivers and vehicles placed out-of-service for critical safety violations.

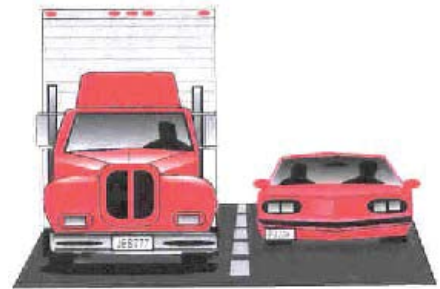


**2** In the past five years, 45% of crashes involving trucks in AIM Corridors #4 and #5 were caused by car drivers. In the 11-mile stretch of I-5 from Tualatin to Portland and the six-mile stretch of I-205 from West Linn to Clackamas, too many non-commercial vehicle drivers are making dangerous mistakes or taking dangerous risks around trucks. They caused 19 crashes with trucks in 2006 alone.

**Objective:** Reduce the number of truck crashes that are caused by non-commercial vehicle drivers in the Portland-area AIM Corridors #4 and #5.

**Activity and Performance Measure:**

- Recruit local police departments to conduct monthly intensive enforcement operations in the area, targeting the dangerous behavior of non-commercial vehicle drivers.
- Track the number of traffic stops, citations, and warnings for traffic violations, including speeding, improper lane change, improper turns, and following too closely.
- Inform the trucking industry and the general public about the special enforcement and why it's necessary.



**3** A number of truck drivers do not wear their seat belts, but it's difficult to determine exactly how many. Police and civilian crash reports commonly don't record whether or not drivers were wearing their belts. Of the total crashes in which seat belt usage is "unknown," approximately 20% are due to police officers failing to note the information. The remaining 80% of the "unknowns" involve crashes for which police were never called to the scene and the drivers failed to note the information in their reports. (Even when drivers in non-police-involved crashes say they were wearing their seat belt, it's not known if that's true.)

A total of 14 truck drivers were killed in crashes in 2006. The crash reports indicate that one was wearing his seat belt, two were not wearing theirs, and usage is unknown for the remaining 11 drivers. Because crash reports are unreliable, inspectors and enforcement officers should focus on observing seat belt usage and stressing its importance whenever they interact with a driver. There are far more inspections than crashes so the information generated will be a good indicator of usage. After one year, safety officials can establish a baseline number of drivers wearing their seat belt at the time of inspection. This will then allow officials to set a measurable objective to increase that percentage in future years.



**Objective:** Reduce the number of truck drivers who don't wear their seat belt.

**Activity and Performance Measure:**

- Law enforcement officers and safety inspectors include seat belt observation and enforcement in every interaction with truck drivers.

## plan ahead

- Revise all inspection forms to add observation of seat belt usage. Reinforce with inspectors and post-crash investigators the importance of checking seat belt usage and documenting violations.
- Educate truck drivers. Distribute safety brochures and rulers with a “buckle-up” message during driver inspections and whenever invited to a company’s driver safety meetings. Vehicle inspection forms now include the message: “Do your drivers wear their seat belts? It’s not just a good idea — it’s the law!”
- Track the number of safety belt-related violations and the number of citations and warnings issued. Track the number of inspection forms that include an observation of seat belt usage.

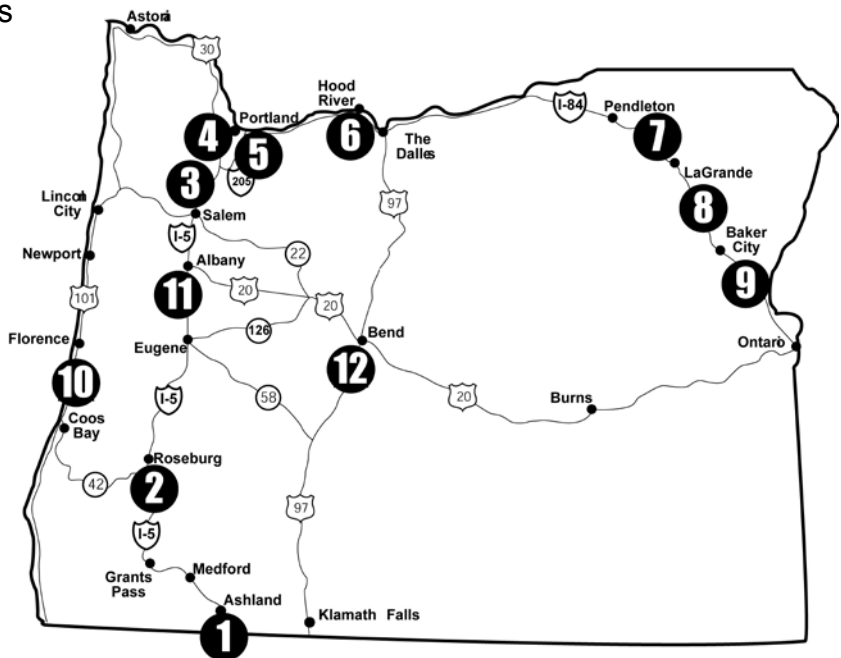
**4** During the Fall and Winter months, hazardous weather and road conditions lead to more truck crashes in AIM Corridor #1 in Southern Oregon on I-5 and in AIM Corridors #7, #8, and #9 in Eastern Oregon on I-84. These highway sections accounted for 30 truck crashes during the winter months in fiscal year 2007.

**Objective:** Reduce by 5% the number of weather-related truck-at-fault crashes in AIM Corridors #1, #7, #8, and #9.



### Activity and Performance Measure:

- Law enforcement officers maintain aggressive enforcement of traffic laws for both cars and trucks. They join motor carrier enforcement officers in chain enforcement operations. Track the number of chain-enforcement operations conducted, traffic stops made, and citations or warnings issued.
- Raise awareness by broadcasting ODOT-sponsored radio public service announcements to educate truck drivers. Operate variable message signs at the I-5 Siskiyou Pass and I-84 Emigrant Hill, along with various other locations, advising travelers of road and weather conditions and chain requirements.



Accident Intensified Motor Carrier Safety Assistance Program (AIM) Corridors where truck crashes are more likely to occur.



## 2008 Safety Plan — Passenger Carrier Safety Initiative

**O**regon has more than 100 registered passenger carriers that together operate more than 350 motor coaches and other buses weighing over 26,000 pounds. In addition, Greyhound alone has over 1,300 motor coaches registered to operate in Oregon. Among other functions, these passenger carriers provide services for one of Oregon's largest industries: tourism. There are more small, lighter-weight passenger vans licensed in Oregon and typically used in a variety of businesses such as retirement communities, casinos, white-water rafting, and rail and airport shuttle services.

Oregon DOT safety inspectors have been conducting Compliance Reviews and inspections on passenger carriers for a number of years. Additionally, law enforcement officers conduct roadside inspections whenever probable cause indicates that's necessary.

**Objective:** Conduct 110 passenger-carrying vehicle inspections, a 5% increase over the previous year's objective.

### **Activity and Performance Measure:**

- Oregon DOT safety investigators perform Level 5 passenger vehicle inspections at carrier terminals, regardless of whether the inspections are part of a formal Safety Compliance Review.
- Track the number of Compliance Reviews and Level 5 inspections conducted.



# plan ahead

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## 2008 Commercial Vehicle Safety Plan — National Program Activities

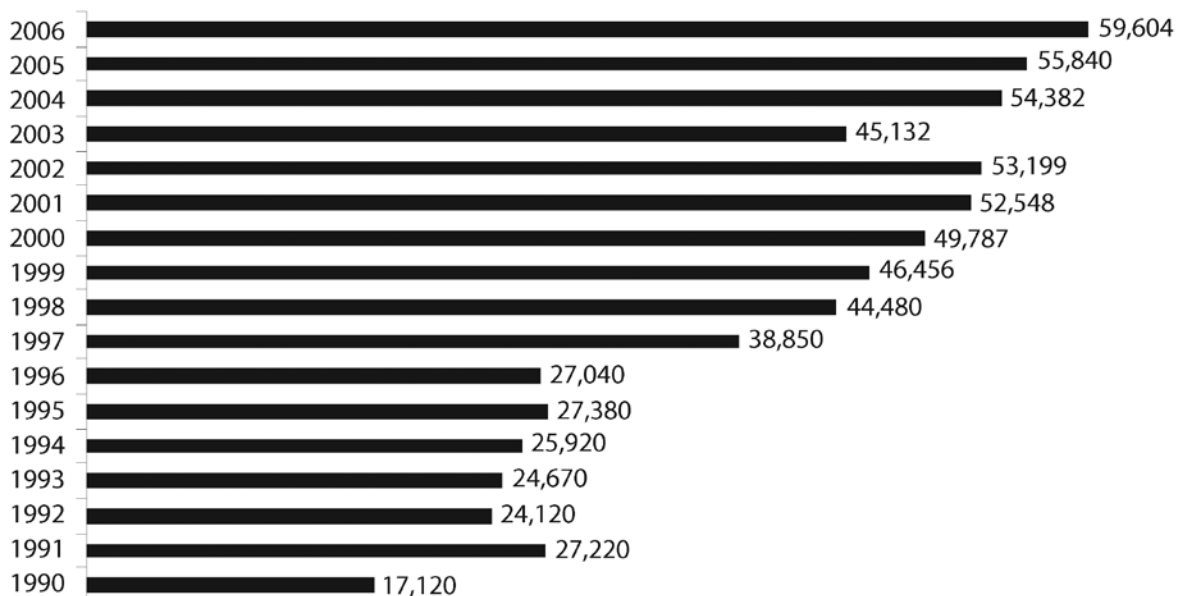
In addition to the four State-specific problems and the Passenger Carrier Safety Initiative, the 2008 Oregon Commercial Vehicle Safety Plan also addresses five national commercial motor vehicle program activities:

- a. Driver / Vehicle Inspections
- b. Traffic Enforcement with Inspection
- c. Compliance and Enforcement
- d. Education and Outreach
- e. Safety Data Collection



**a** **Driver / Vehicle Inspections** — Conducting safety inspections at fixed scales, roadside locations, and motor carrier terminals is one of many enforcement tools used to reduce crashes, particularly those caused directly or indirectly by driver fatigue or mechanical failures. The Oregon DOT has 63 certified Level 1 inspectors, including 28 Motor Carrier Enforcement Officers and 35 Safety Specialists. An additional 62 Motor Carrier Enforcement Officers are certified Level 2 inspectors. But Oregon has the privilege of having a variety of other inspection personnel available to check truck safety. Besides ODOT inspectors and Oregon State Police, enforcement officers in 33 state agencies are trained and certified to conduct inspections throughout the state as Motor Carrier Safety Assistance Program partners.

## Oregon Truck and Driver Safety Inspection Totals



Inspection activities include verification of CDL status using either the Law Enforcement Data System (LEDS) or Commercial Driver's License Information System (CDLIS) and/or Oregon DMV Mainframe. The latter is used to check both in-state and out-of-state drivers' records for outstanding suspensions in Oregon. Inspectors also check bulk and non-bulk hazardous material shipments, including radioactive shipments traveling through Oregon.

**Objective:** Conduct 55,000 inspections per year, including all levels of inspections at fixed scale locations, Level 2 and 3 inspections at the roadside in conjunction with probable cause stops by law enforcement officers, and Level 5 inspections at motor carrier terminals in conjunction with Safety Compliance Reviews.

**Activity and Performance Measure:**

- Ensure that inspectors are trained and kept abreast of changes in regulations and inspection procedures as they occur. Offer biennial refresher training for inspectors beginning in 2008.
- Track the number of inspections and the number of drivers and vehicles placed out-of-service for critical safety violations.

**Types of Truck Safety Inspections Conducted Throughout North America**

**LEVEL 1** — A complete inspection that includes a check of the driver's license, medical examiner's certificate (and waiver, if any), alcohol and drugs, hours of service, seat belt, annual vehicle inspection report, brake system, coupling devices, exhaust system, frame, fuel system, turn signals, brake and tail lamps, headlamps, lamps on loads, load securement, steering, suspension, tires, van and open-top trailer bodies, wheels and rims, windshield wipers, emergency exits on buses and hazardous materials requirements, as applicable.

**LEVEL 2** — A "walk-around" inspection that includes a check of each of the items in a Level 1 inspection, but not items that require the inspector to physically get under the truck.

**LEVEL 3** — An inspection of just the driver-related items in a Level 1 inspection.

**LEVEL 4** — A special inspection, typically a one-time examination of a particular item for a safety study or to verify or refute a suspected trend.

**LEVEL 5** — An inspection of just the truck-related items in a Level 1 inspection.

**LEVEL 6** — An inspection of a shipment of highway-route-controlled quantities of radiological material. A Level 6 inspection includes an enhanced check of each of the items in a Level 1 inspection.

Trucks that successfully pass a Level 1 or Level 5 inspection receive a Commercial Vehicle Safety Alliance (CVSA) decal valid for three consecutive months. Vehicles displaying a decal generally will not be subject to another inspection in that three-month period.



### **Level 2 “Walk Around” Inspection Checklist**

- 1** Identify company name and check for a U.S. DOT number.
- 2** Review driver documents and check for appropriate driver license.
- 3** If hauling hazardous materials, check shipping paper, package labels, and placarding.
- 4** Inspect front of truck. Check lights, windshield, wipers, horn, wheels, and tires.
- 5** Inspect left side of truck. Check fuel tanks, air and electrical lines, wheels and tires, exhaust system, coupling device, side lamps, and condition of vehicle and trailer body. Check tractors and trailers for required reflective tape.
- 6** Inspect rear of truck. Check lights, rear-end protection, wheels and tires, reflective tape.
- 7** Inspect right side of truck. Inspect as described in #5.
- 8** Check for proper cargo securement. Check for unsecured dunnage, tools, and spare tire.
- 9** Inspect inside truck. Check for low air brake warning device. Check same for vacuum and hydraulic brakes. Check fire extinguisher and reflective triangles.
- 10** Complete the inspection document and return documents to the driver.

**b Traffic Enforcement with Inspection —** Most truck-at-fault crashes are caused by drivers speeding, following too closely, changing lanes unsafely, or making unsafe turns. Truck-at-fault crashes have been steadily increasing in the AIM Corridors throughout the state, reaching a total of 99 in the most recent fiscal year. Traffic enforcement efforts need to focus on these AIM Corridors where most crashes occur.

**Objective:** Reduce by 5% the number of truck-at-fault crashes in AIM Corridors, from 99 total in fiscal year 2006 to 94 total in 2008.

**Activity and Performance Measure:**

- Law enforcement officers maintain traffic enforcement operations in AIM Corridors throughout the year and conduct Level 2 and 3 inspections at the roadside in conjunction with probable cause stops. They engage in monthly Hazardous Violation Exercises and join safety specialists and motor carrier enforcement officers in hours-of-service operations. They conduct additional special hours-of-service operations as statistical and situational analysis indicates that's warranted.
- Track the number of citations and warnings issued as a result of probable cause stops, the number of inspections, and the drivers and vehicles placed out-of-service for critical safety violations.



**Compliance and Enforcement** — Any motor carrier deemed to be at-risk in terms of safety is subject to an investigation and a comprehensive compliance review that results in a safety fitness rating. A compliance review of an interstate motor carrier examines both interstate and intrastate activity and results in an interstate safety fitness rating. A review of an Oregon intrastate carrier results in an intrastate fitness rating. The results of all reviews are uploaded to the Motor Carrier Management Information System (MCMIS). This federal database contains all previous compliance reviews, priority listings, inspections, crashes, and insurance status.

### Safety Compliance Review

The Oregon compliance review program is based on well-established uniform policies and procedures, along with an electronic Field Operations Training Manual. Investigators use software called CAPRI (Carrier Automated Performance Review Information) to prepare worksheets for data related to hours-of-service, driver qualification, and drug and alcohol compliance. Level 5 inspections are conducted during most reviews. A first-time review that reveals major violations

will lead to a follow-up review, with civil monetary penalties and/or suspension of authority if major violations are again discovered. Carriers subject to such enforcement actions are listed in the quarterly Oregon Motor Carrier News after violation has been confirmed.

In addition to compliance reviews, Oregon safety specialists conduct post-crash inspections when requested by enforcement officers. At a minimum, these include inspecting the commercial vehicle involved, analyzing all documents and other evidence collected at the scene, contacting shippers, fuel vendors, and others to verify hours-of-service, and gathering technical data for reconstructionists.



**Objective:** Conduct about 630 Safety Compliance Reviews and other investigations per year. Ensure all at-risk Oregon carriers are checked on an ongoing basis. Add a Security Contact Review component to compliance reviews of carriers who transport hazardous materials that require a security plan.

#### Activity and Performance Measure:

- Identify at-risk carriers and bring them into compliance. Educate carriers about safety requirements. Track the percentage who require a follow-up review and the percentage who improve their safety rating from one review to the next.
- Train five Oregon DOT staff members on the Security Contact Review component of the compliance review.



**d** **Education and Outreach** — A substantial number of truck crashes are caused by non-commercial motor vehicle drivers. Many, if not most, car drivers are unaware of the hazards of sharing the road with trucks. Many make dangerous mistakes or take unnecessary risks around trucks.

A number of truck-at-fault crashes are caused by truck drivers as they travel down Siskiyou Pass on I-5 in Southern Oregon and Emigrant Hill on I-84 in Eastern Oregon. Their imprudent actions related to speed, brake conditions, and chain requirements suggest they don't respect the Pass or the Hill.



**Objective:** Continue efforts to educate both car and truck drivers about sharing the road safely. Intensify public information campaigns, particularly Oregon DOT-sponsored radio announcements, to educate the public about safe driving around commercial motor vehicles. Educate truck drivers about the dangers they face, such as when traveling on Oregon mountain passes.

**Activity and Performance Measure:**

- Raise public awareness by airing Oregon DOT-sponsored radio spots to educate listeners.
- Distribute brochures at rest stops, information centers, safety fairs, and state and county fairs — “Respect the Hill” to warn about Emigrant Hill on I-84 in Eastern Oregon, “Respect the Pass” to warn about the Siskiyou Pass in Southern Oregon — “Truck Zone” and “Smart Drivers” with general advice about safely sharing the road — “Wear Your Safety Belt” and “9 Myths about Safety Belts



for Truck Drivers” to remind drivers of the importance of wearing seat belts — “Professional Drivers” and “Awake at the Wheel” with other general advice, and other safety-related brochures.

- Track the number of radio public service announcements aired and brochures distributed.



## plan ahead

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**e Safety Data Collection** — On a quarterly basis, the Federal Motor Carrier Safety Administration (FMCSA) rates states on the completeness, timeliness, accuracy, and consistency of the crash and roadside inspection data uploaded to the Motor Carrier Management Information System (MCMIS). Oregon ranks as a model state in terms of safety data collection. Its timeliness and accuracy levels are considered unparalleled as it scores high for crash records reported within 90 days and crash accuracy measures, as well as inspection records reported within 21 days and inspection accuracy measures. For example, Oregon’s most recent “non-match” inspection rate — the rate at which the motor carrier name and number on an inspection cannot be linked to an actual carrier — is 0.11%, well below the national average.



Accuracy, completeness, and timely reporting of information to FMCSA is checked by Oregon’s participation in the national online safety data correction program called DataQs, which generates periodic reports and requests for corrections. In each of the last three years, the number of Oregon inspection challenges via DataQs has been less than 0.1% and the number of challenges involving crashes has been less than 1%. Data are also subject to checks by motor carriers through the Commercial Vehicle Safety Alliance’s complaint control procedures. Carriers can question the improper application of safety and hazardous materials regulations, as well as the out-of-service criteria.

When a safety inspection finds violation(s), Oregon requires the motor carrier to sign and return the inspection form within 15 days in order to certify that vehicle-related problems were repaired and/or driver-related problems were addressed. All federal recordable crashes must be reported using an ODOT/DMV form specifically designed to collect data elements needed in the national SafetyNet database. Oregon takes enforcement actions against carriers who fail to comply with inspection and crash reporting requirements.

Oregon’s data collection success story is, in part, attributable to the widespread and increasing use of computers with Aspen Driver/Vehicle Inspection Software to record information. This software runs on laptops, as well as desktops inside inspection facilities. It collects inspection details, prints inspection reports, and electronically transfers inspections to the national database.

**Objective:** Increase to at least 75% the number of inspections recorded on computer in fiscal year 2008.

| Fiscal Year | Inspections recorded on computers | Percent of total inspections performed on computer |
|-------------|-----------------------------------|--|
| 2004        | 34,716                            | 65%  |
| 2005        | 37,851                            | 71%  |
| 2006        | 44,633                            | 74%  |

**Activity and Performance Measure:**

- Ensure all inspectors are familiar with computer software. Provide ongoing refresher training as needed. Track the number of inspections done by Oregon certified inspectors using computers.



**Oregon Safety Data Quality**  
*as measured by Federal Motor Carrier Safety Administration*

|   | Jun 06     | Sep 06     | Dec 06     | Mar 07     | Jun 07     |
|---|------------|------------|------------|------------|------------|
| <b>Oregon<br/>Inspection Records<br/>Timeliness</b> | <b>99%</b> | <b>99%</b> | <b>99%</b> | <b>99%</b> | <b>99%</b> |
| National Average                                    | 86%        | 86%        | 87%        | 88%        | 90%        |
| <b>Oregon<br/>Inspection<br/>Accuracy</b>           | <b>99%</b> | <b>99%</b> | <b>99%</b> | <b>99%</b> | <b>99%</b> |
| National Average                                    | 97%        | 98%        | 98%        | 98%        | 98%        |
| <b>Oregon<br/>Crash Report<br/>Timeliness</b>       | <b>89%</b> | <b>88%</b> | <b>88%</b> | <b>88%</b> | <b>89%</b> |
| National Average                                    | 85%        | 86%        | 89%        | 88%        | 87%        |
| <b>Oregon<br/>Crash Report<br/>Accuracy</b>         | <b>98%</b> | <b>98%</b> | <b>97%</b> | <b>96%</b> | <b>97%</b> |
| National Average                                    | 92%        | 92%        | 93%        | 93%        | 92%        |



### 3. Focus on the driver

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U.S. Department of Transportation  
Office of Public Affairs  
Washington, D.C.  
[www.dot.gov/affairs/briefing.htm](http://www.dot.gov/affairs/briefing.htm)

FMCSA 02-06

Thursday, March 23, 2006

**NEWS**

#### **New Study Concludes Driver Behavior Causes Most Truck Crashes**

WASHINGTON - Drivers of large trucks and other vehicles involved in truck crashes are ten times more likely to be the cause of the crash than other factors, such as weather, road conditions, and vehicle performance according to a new study released by the Federal Motor Carrier Safety Administration (FMCSA).

The *Large Truck Crash Causation Study* was commissioned by FMCSA to review the causes of, and contributing factors to, crashes involving commercial motor vehicles. While previous data focused on specific crashes and/or individual causes of crashes, this study was the first nationwide examination of all pre-crash factors.

“This study makes it clear that we need to spend more time addressing driver behavior, as well as making sure trucks and buses are fit for the road,” FMCSA Administrator Annette M. Sandberg said. . .

The FMCSA's *Large Truck Crash Causation Study* didn't surprise Oregon safety officials. They've noticed for years that driver actions, either the truck driver or the other driver, are to blame for most truck crashes. While Oregon inspectors need to maintain their aggressive efforts to inspect trucks and trailers in order to keep mechanical-caused crashes to a minimum, their chief focus should be on the truck driver. Checking truck drivers' behavior and fitness holds the greatest promise for reducing truck-at-fault crashes. Checking other drivers' behavior while sharing the road with trucks holds the greatest promise for reducing the remaining truck crashes.

As the *Causation Study* concluded:

An action or inaction by the drivers of the truck or the other vehicles involved were important reasons leading to crashes in a large majority of the cases. Driver recognition and decision errors were the type of driver mistakes coded by crash investigators or law enforcement officials most often for the trucks and passenger vehicles. Truck drivers, however, were coded less frequently for both driving performance errors and non-performance problems (e.g., asleep, sick, incapacitated) than passenger vehicle drivers. In crashes between trucks and passenger vehicles, driving too fast for conditions and fatigue were important factors cited for both drivers. However, fatigue was coded twice as often for passenger vehicle drivers and speeding more often for truck drivers.

## focus on the driver

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Other general conclusions in the FMCSA's *Large Truck Crash Causation Study* included the following:

- In all crashes, driver recognition and decision errors were the common type of driver mistakes noted by crash investigators or law enforcement officials.
- Driving too fast for conditions and fatigue were important factors cited for both drivers.
- Speeding was noted more often for truck drivers.
- Among truck drivers, prescription drug use was an “associated factor” in 28.7% of all crashes sampled and over-the-counter drugs were an associated factor in 19.4%.
- Car drivers were more frequently linked to both driving performance errors and non-performance problems (e.g., asleep, sick, incapacitated).
- Fatigue was noted twice as often for car drivers.
- Brake problems were a factor for almost 30% of trucks but only 5% of cars.
- Roadway problems were present in 16% of the two-vehicle crashes and adverse weather conditions were present in approximately 13%.
- Interruption in the traffic flow (previous crash, work zone, rush hour congestion, etc.) was a factor in almost 25% of the two-vehicle crashes.



Many truck crashes are predictable if one examines driver behavior and prior driving history. In 2006, the American Transportation Research Institute (ATRI) announced that it had developed an overall driver performance-based model for predicting future crash involvement. The model is based on specific violations found in roadside inspections, as well as driver traffic convictions and past crash involvement.

The analysis shows that eight separate moving violations were significant with an associated crash likelihood increase between 21% and 325%. Four driver violations were associated with a crash likelihood increase between 18% and 56%. Twelve convictions were significant with an associated crash likelihood increase between 24% and 100%. Furthermore, drivers who had a past crash increase their likelihood of a future crash by 87%.



### Summary of Crash Likelihood

| <b>If a CMV driver had:</b>                   | <b>Their crash likelihood increased:</b> |
|---|--|
| A reckless driving violation                  | 325%                                     |
| An improper turn violation                    | 105%                                     |
| An improper or erratic lane change conviction | 100%                                     |
| A failure to yield right of way conviction    | 97%                                      |
| An improper turn conviction                   | 94%                                      |
| A failure to maintain proper lane conviction  | 91%                                      |
| A past crash                                  | 87%                                      |
| An improper lane change violation             | 78%                                      |
| A failure to yield right of way violation     | 70%                                      |
| A driving too fast for conditions conviction  | 62%                                      |

A second part of the ATRI research examined various enforcement programs and strategies for addressing problem driver behaviors. It turns out that the most successful programs had one or more of the following strategies:

- Create aggressive driving apprehension programs.
- Target both commercial motor vehicle (CMV) and non-CMV behavior patterns.
- Conduct both highly visible and covert enforcement activities.
- Incorporate an internal performance-based system for managing enforcement by specific crash types, driver behaviors, and locations.

## focus on the driver

The Motor Carrier Transportation Division has long focused on drivers as the root of the problem with truck crashes. In 2002 the Division reworked its performance measures and changed the safety-related ones after it confirmed that there is a statistical correlation between truck-at-fault crashes and the number of truck drivers placed out-of-service for critical safety violations. As more unsafe drivers are found and taken off the road, truck-at-fault crashes decline. Now the Division's Quarterly Business Review features graphs charting this activity. Managers have set targets to increase driver out-of-service inspections to a monthly average of 508, and reduce truck-at-fault crashes to no more than 47 each month. The crash graph also charts truck miles traveled in Oregon because that is an important variable influencing the occurrence of problems.



The degree of attention that the Division pays to truck drivers is apparent in the number of Level 3 inspections conducted. A Level 3 inspection is a check of just driver-related items — the driver's license, medical examiner's certificate (as well as interstate or intrastate driving waiver, if any), logbook / record of duty status, hours-of-service, seat belt usage, and vehicle inspection report.

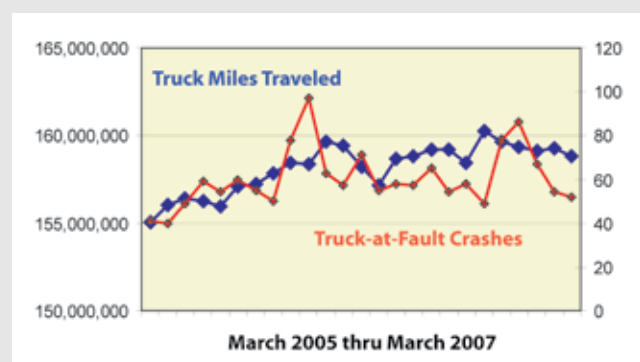
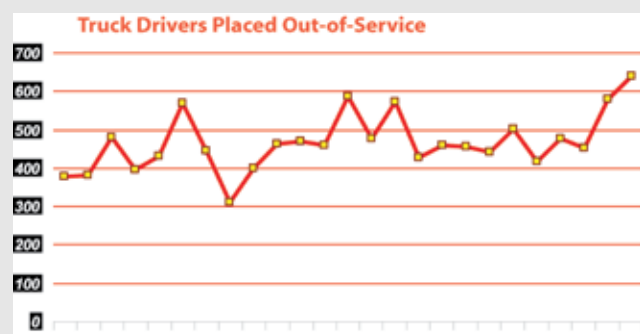
Motor Carrier Division inspectors alone completed 39,406 inspections in 2006 and 27% of them were Level 3 inspections of truck drivers. The time was well spent, too, as 18% of the inspections resulted in placing a driver out-of-service.

Oregon State Police troopers found an even greater percentage of problems in the 1,278 Level 3 inspections they conducted in 2006. They found 22% of those drivers had a critical safety violation.

The most common violation cited in driver inspections is related to "local laws" such as speeding, tailgating, and changing lanes unsafely. The next most common violation is related to logbooks — False Record of Duty Status — where the logs don't accurately reflect the driver's actual activities and duty status in an apparent attempt to conceal a violation of hours-of-service limits. This violation results in the driver being placed out-of-service and not permitted to drive a commercial motor vehicle for up to 10 hours.

### Oregon Safety Performance Measures

From March 2005 through March 2007, an average of 467 inspections each month led to a driver placed out-of-service for a critical safety violation. In this 25-month period, the total miles traveled by trucks increased 2% and there were an average of 60 truck-at-fault crashes each month.



## Oregon vs. National Safety Inspection Activity — 2006

| Inspection Level         | Oregon                |                       |              | National              |                       |              |
|--------------------------|-----------------------|-----------------------|--------------|-----------------------|-----------------------|--------------|
|                          | Number of Inspections | Out-of-Service Driver | Vehicle      | Number of Inspections | Out-of-Service Driver | Vehicle      |
| <b>1 - Full</b>          | 18,313 - 30.7%        | 7.1%                  | 30.4%        | 1,124,014 - 33.8%     | 5.2%                  | 27.4%        |
| <b>2 - Walk-Around</b>   | 28,420 - 47.7%        | 7.9%                  | 21.5%        | 1,169,378 - 35.1%     | 7.5%                  | 19.9%        |
| <b>3 - Driver Only</b>   | 12,010 - 20.2%        | 18.4%                 |              | 894,187 - 26.9%       | 8.9%                  |              |
| <b>4 - Special Study</b> | 3 - .01%              |                       |              | 25,212 - 0.8%         |                       |              |
| <b>5 - Terminal</b>      | 836 - 1.4%            |                       | 25.5%        | 116,651 - 3.5%        |                       | 9%           |
| <b>Total</b>             | <b>59,582</b>         | <b>9.8%</b>           | <b>24.9%</b> | <b>3,329,442</b>      | <b>7.1%</b>           | <b>22.9%</b> |

In terms of the types of inspections conducted in 2006, Oregon compares favorably with national totals. The Oregon breakdown includes the following:

- A slightly lower percentage of Level 1, complete truck and driver inspections — 30.7% in Oregon compared with 33.8% nationally.
- A much higher percentage of Level 2, truck walkaround and driver inspections — 47.7% in Oregon compared with 35.1% nationally.
- A lower percentage of Level 3, driver-only inspections — 20.2% in Oregon compared with 26.9% nationally.

In terms of the results, Oregon inspections yielded out-of-service rates that were remarkably higher than national rates:

- Level 1 inspections found critical violations in 7.1% of drivers and 30.4% of vehicles. Nationally, the inspections placed 5.2% of drivers and 27.4% of vehicles out-of-service.
- Level 2 inspections found critical violations in 7.9% of drivers and 21.5% of vehicles. Nationally, the inspections placed 7.5% of drivers and 19.9% of vehicles out-of-service.
- Level 3 inspections found critical violations in 18.4% of drivers. Nationally, the inspections placed 8.9% of drivers out-of-service.

## focus on the driver

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Considering the recent steady rise in truck-at-fault crashes, the Motor Carrier Transportation Division is redoubling its efforts to shine a spotlight on drivers. One new strategy mentioned in the 2008 Commercial Vehicle Safety Plan is to hold more special inspection blitzes involving law enforcement officers, safety specialists, and motor carrier enforcement officers. In past years these were conducted on a quarterly basis, usually round-the-clock over a three-day period. The new plan is to hold these on a more regular basis and periodically have them extend over five-day periods.

In one such five-day special exercise in July 2007, for example, critical safety violations were found in nearly one out of every four drivers. Inspectors worked at six weigh station sites along I-84 and at the Umatilla Port of Entry on I-82. They completed 1,413 inspections and placed 329 drivers out-of-service, resulting in a 23% out-of-service rate that is far above the 7% national rate for drivers. The exercise focused on drivers, but inspectors also checked 129 vehicles and placed 70 out-of-service for mechanical problems. That 54% out-of-service rate is far above the 23% national rate for vehicles. A similar exercise on I-5, OR99, OR58, and US97 in August yielded comparable results. Inspectors working at 13 weigh stations, including the northbound Ports of Entry at Ashland and Klamath Falls and the southbound Port of Entry at Woodburn, completed 1,638 inspections and placed 446 drivers out-of-service for critical safety violations (27%). They also checked 134 vehicles and placed 129 out-of-service.

Multi-day exercises of this type can only be conducted periodically because they tap the limit of staff resources. The exercises yield high out-of-service rates because drivers and vehicles are not randomly selected. Rather, inspectors used several sorting tools to find those drivers most likely to warrant attention. They have ready access to general safety records for motor carriers and



specific records related to truck scale crossings, which is invaluable when checking logbooks. Inspectors also look for obvious signs, such as whether a truck has a current Commercial Vehicle Safety Alliance inspection decal and whether the driver is inattentive or showing signs of fatigue. Drivers selected undergo an interview process while their logbooks and supporting documents are examined.





**Truck Driver Violations  
— 2006 Safety Inspections —**

| <b>Violation</b>           | <b>Total</b> |
|----------------------------|--------------|
| Local Laws                 | 8,906        |
| False Logs                 | 6,524        |
| Logbook not current        | 4,705        |
| 14-Hour rule               | 4,110        |
| General logbook violations | 4,093        |
| 11-Hour rule               | 2,207        |
| No logbook                 | 1,602        |
| CDL violations             | 662          |
| 60/70-Hour rule            | 449          |
| Miscellaneous              | 4,431        |
| Other violations           | 34           |

“Local Laws” violations include, but are not limited to, speeding, tailgating, failure to maintain lane, improper lane change, failure to yield right of way, failure to use and/or carry chains/traction devices, failure to obey traffic control device, failure to use hazard warning flashers, failing to yield to emergency vehicle, failing to use seat belt, and failing to have ODOT certificate, permit, or temporary pass.

“Miscellaneous” violations include, but are not limited to, operating a truck while ill/fatigued, failing/improper placement of warning devices, hazmat hauler failing to stop at railroad crossing, using or equipping a truck with a radar detector.

**Hours-of-Service Rules for  
Drivers in Interstate Commerce**

When in interstate commerce and transporting property,  
COMMERCIAL VEHICLE DRIVERS MAY NOT:

- Exceed 11 hours driving after 10 consecutive hours off duty.
- Drive beyond the 14th hour after coming on duty following 10 consecutive hours off duty.
- Drive following 60 hours on duty in any 7 consecutive days.\*
- Drive following 70 hours on duty in any 8 consecutive days.\*

\*The period may be restarted after a driver takes 34 or more consecutive hours off-duty.

Drivers may extend the 14-hour on-duty period by 2 additional hours IF THEY: Are released from duty at the normal work reporting location for the previous 5 duty tours, AND Return to the normal work reporting location and are released from duty within 16 hours, AND Have not used this exception in the previous 6 days, except following a 34-hour restart of a 7 or 8 consecutive day period.

## focus on the driver

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***Improving highway safety for commercial vehicle operations starts with the driver. Highway crashes related to large trucks account for 8% of the fatal crashes, yet only 4% of the total crashes. Focusing more attention on commercial and non-commercial operators will save lives.***

The Commercial Vehicle Safety Alliance (CVSA) is working to improve commercial and non-commercial driver behavior and performance through enforcement, education, and awareness strategies. In October 2007, the not-for-profit association of local, state, provincial, and federal safety officials sponsored the first “Operation Safe Driver” week.



### ***“Increasing Driver Performance through Enforcement and Education”***

CVSA notes that in the 141,000 truck crashes examined in FMCSA’s *Large Truck Crash Causation Study*, commercial vehicle performance, recognition, and decision factors accounted for 88% of the critical reasons for the crashes.

#### **Operation Safe Driver Week — Objectives and Strategies**

1. Increase truck traffic enforcement. Get unsafe and fatigued drivers off the road. Implement driver-focused enforcement and education strategies based on performance data.
2. Introduce driver educational and awareness programs to motor carriers. Educate all drivers about the importance of safe driving and proper driving techniques.
3. Increase non-commercial vehicle traffic enforcement. Take enforcement action against drivers operating in an unsafe manner around trucks and buses.
4. Increase awareness of the motoring public about safely sharing the road with trucks. Raise awareness about hazards and ways to enhance safety.
5. Increase seat belt enforcement. Take action against truck drivers who don’t buckle up.
6. Increase driver roadside inspections and driver regulatory compliance.
7. Educate government, industry, and the public about the important role roadside enforcement plays in saving lives and providing safe and secure highways.

During the Operation Safe Driver Week, the Motor Carrier Transportation Division held a multi-day inspection exercise on I-84 and an Open House at the Woodburn Port of Entry on I-5. The Open House provided an opportunity to showcase, for the benefit of media and truck drivers, many of the truck safety stakeholders, including the Oregon Trucking Associations, Oregon State Police, Federal Motor Carrier Safety Administration, ODOT’s Intelligent Transportation Systems Unit and Transportation Safety Division. The Motor Carrier Division plans more of these Open House events because while they offer a reason for truck drivers to take a break and have a cup of coffee, they offer a way to hold their attention and deliver many safety messages.

Oregon State Police are on the front lines of Oregon’s fight to reduce truck crashes. Troopers on patrol get a firsthand view of driver behavior. Their mere presence at the roadside is, of course, a deterrant to traffic violations and the more they interact with drivers the more they promote highway safety.



In recent years, Oregon State Police (OSP) truck enforcement activity has been more constrained by the limited number of troopers available than by funding to support their work. In 2003, legislators directed that OSP receive an annual appropriation of \$1.6 million of Oregon’s total Motor Carrier Safety Assistance Program funds. (The OSP budget didn’t grow, however, because an equal amount was subtracted from the State General Funds going to the agency.) In 2007, legislators increased the Safety Assistance Program appropriation by \$49,500 per year. Legislators also approved funding to hire 100 more troopers, although it will take time to train and engage that entire additional workforce.

In 2006, OSP troopers checked 15,846 trucks and drivers and found violations in nearly 3 of every 4 inspections (11,169). They found critical safety violations that warranted placing 1,561 drivers (9.8%) and 816 vehicles (5.6%) out-of-service. Most of the inspections (91%) were Level 2 “walkaround” checks. Troopers find a higher than average number of truck drivers with violations because their inspections start with a probable cause stop for a traffic violation such as speeding or tailgating. Drivers committing traffic offenses are more likely to also be committing some other safety violation such as exceeding driver hours-of-service limits.

| <b>Truck Inspections by Oregon State Police</b>  |        |        |        |        |        |
|--|--------|--------|--------|--------|--------|
|  | 2002   | 2003   | 2004   | 2005   | 2006   |
| <b>Total Inspections</b>   | 15,692 | 13,544 | 18,296 | 16,824 | 15,846 |
| <b>Inspections that found safety violations</b>  | 12,299 | 10,193 | 13,816 | 12,616 | 11,169 |
| <b>Inspections that placed a driver out-of-service</b>                                   | 1,791  | 1,389  | 1,884  | 1,558  | 1,561  |
| <b>Driver out-of-service rate</b>  | 11.4%  | 10.3%  | 10.3%  | 9.3%   | 9.8%   |
| <b>Inspections that placed a vehicle out-of-service</b>                                  | 707    | 577    | 1,031  | 837    | 816    |
| <b>Vehicle out-of-service rate</b>   | 4.5%   | 4.3%   | 5.9%   | 5.4%   | 5.6%   |
| <b>Combined out-of-service rate (% of inspections with any out-of-service violation)</b> | 15.3%  | 14.2%  | 15.2%  | 13.7%  | 14.4%  |

### News

#### **Toxicology Test Results - Operation Trucker Check XII**

**05/02/2007**

Sergeant Alan Hageman, Patrol Services Division  
Office: (503) 378-3725 ext. 4201

Toxicology tests completed by the Oregon State Police (OSP) Forensic Services Division on nearly 500 voluntarily provided anonymous urine tests during this month's Operation Trucker Check XII indicates about one in ten commercial drivers had controlled substances in their system. The percentage total results of this trucker check operation were similar to those noted during the first operation in 1998, but there were some increases in positive tests in some drug categories.

“An analysis of urine collected at three of the twelve trucker check operations since 1998 does not demonstrate a significant difference in the presence of controlled substances among the commercial motor carrier driver population,” said OSP Sergeant Alan Hageman of the Patrol Services Division. “The unacceptable part is that nearly one in ten commercial drivers had controlled substances in their system while operating 80,000 pound vehicle combinations on our highways.”

Operation Trucker Check XII, an around-the-clock three day interagency inspection and enforcement project, was held April 10 – 12, 2007 at the Interstate 5 southbound Woodburn Port of Entry. A team of law enforcement officers and ODOT commercial vehicle inspectors targeted driver impairment related to alcohol, drugs, or fatigue, and vehicle equipment safety. The first operation was held in 1998 at the Ashland Port of Entry and has been held at other locations including Ontario, Cascade Locks, and Klamath Falls.

Unlike the first Operation Trucker Check in 1998 when nearly 20 percent of the drivers refused to provide voluntary urine samples for testing, only 4 percent refused to provide a voluntary sample this year. OSP evidence technicians helped police obtain the urine samples that were forwarded to an OSP Forensic Lab for testing.

The following are the analysis results of the 487 urine samples obtained:

- 8 (1.64%) drivers tested positive for the presence of amphetamines, equal to the number of drivers tested positive in 1998.
- 18 (3.70%) tested positive for the presence of cannabinoid (marijuana), nearly double the number of drivers tested positive in 1998.
- 2 (0.41%) tested positive for the presence of methadone.
- 16 (3.29%) tested positive for opiates (e.g., oxycodone), double the number of drivers tested positive in 1998.
- 3 (0.62%) tested positive for propoxyphene (synthetic opiates).
- 5 (1.03%) were positive for more than one drug category.
- Overall, 41 (9.65%) 487 drivers provided urine which tested positive in at least one drug category.



According to the American Trucking Associations, drug abuse in the trucking industry — as measured by the percentage of “positive” test results — is less than half that found in the general workforce. But it has remained steady between 2% and 2.5% of the truck driver population since the beginning of required testing programs in 1995. There are at least 3.4 million truck drivers so a 2% positive rate translates into at least 68,000 with a drug abuse problem.

Oregon State Police is addressing this problem head-on with special inter-agency inspection and enforcement exercises called Operation Trucker Check.

These three-day round-the-clock operations target driver impairment related to alcohol, drugs, or fatigue. While officers trained as Drug Recognition Experts look for actual signs of impairment, drivers are asked to voluntarily provide an anonymous urine sample as part of an ongoing study of their use of illicit, prescription, and over-the-counter drugs.

The first Operation Trucker Check was held in 1998. The 12th one, completed in April 2007, provided evidence that about one in ten drivers had controlled substances in their system (see page 28).

In August 2007, the American Trucking Associations urged Congress to establish a central clearinghouse for drug and alcohol test results to ensure that prospective employers are aware of any prior positive test results for driver applicants. Traffic violations and criminal convictions are found on drivers’ public records, but trucking companies in most states cannot easily discover whether drivers had any positive drug or alcohol tests at previous jobs. Oregon is one of just four states that requires information about a positive drug test be entered on the employment driving record.

### **Oregon Drug and Alcohol Testing Law**

Legislation passed in 1999 established two Oregon requirements related to motor carrier drug and alcohol testing and the employment driving record of commercial drivers.

First, motor carriers must certify that they meet drug and alcohol testing program requirements at the time they initially register to operate in the state, and again each time they renew registration. Carriers who participate in a testing program maintained by a consortium must provide the names of the persons operating the consortium. This strengthens the existing federal requirement that motor carriers must maintain a testing program or participate in a program maintained by a consortium.

Second, information about an Oregon commercial driver’s positive drug test must be entered on the driver’s employment driving record. When any driver with an Oregon CDL tests positive for drugs, the medical review officer conducting the test must report the result to Oregon’s Driver and Motor Vehicle Services Division (DMV) so it can be entered on the driver’s employment driving record. When a medical review officer reports a positive drug test, DMV notifies the driver and advises him or her of the right to a hearing. If a hearing is requested, no entry will be made on the driver’s commercial driving record pending the outcome of the hearing. Once information about a drug test has been entered on a commercial driving record, DMV will release that information only with the written permission of the driver.



## 4. Rally the partners

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Oregon is fortunate to have many resources supporting efforts to reduce truck crashes. Any list of these resources should have the Motor Carrier Safety Assistance Program (MCSAP) at the top. The state has been participating in this program since 1984. In Federal Fiscal Year 2008, it provides \$2,414,707 in federal funds for inspector training, equipment, and safety-related expenses, as well as compensation for traffic enforcement work and truck safety inspections. Oregon's required 20% state match for 2008 totals \$482,941. The Oregon DOT Motor Carrier Transportation Division manages the program.

In 2003, legislators directed that Oregon State Police (OSP) annually receive \$1.6 million of Oregon's total MCSAP funds. Prior to that, OSP was receiving \$400,000 per year and Oregon was engaging many other police and sheriff agencies in contracted traffic enforcement and inspection services. For example, Multnomah County Sheriffs received \$136,000 per year for conducting truck inspections, Washington County Sheriffs received \$70,000 per year, Clackamas County received \$60,000, Portland Police received \$46,000, Salem Police received \$20,000, and police in other cities like Bend, Eugene, Gresham, Hillsboro, and Redmond received \$10,000 each per year. After 2003, Oregon MCSAP was reworked to provide monetary compensation only for inspections performed by State Police. Other agencies were invited to participate in MCSAP under non-compensated agreements.

Although they no longer receive funds, many Oregon agencies continue to be MCSAP partners. They derive benefits from MCSAP-provided inspector training and equipment, and they're eligible to petition for MCSAP funds to pay for equipment such as computers and printers. These partners also benefit from the fact that the Motor Carrier Division handles all administrative duties related to their inspection work. A total of 55 agencies currently have non-compensated agreements, but only 33 agencies actively perform inspections and other enforcement work:

### Oregon MCSAP Partners — Non-Compensated Agreements

#### City Police Departments

Ashland (1), Canby (3), Coburg (2), Eugene (1), Forest Grove (1), Gresham (3), Hermiston (1), Hillsboro (4), Keizer (3), Lake Oswego (1), Madras (1), Molalla (2), Portland (**2**+9), Salem (**3**+3), Tigard (3), Troutdale (1), Tualatin (2), Turner (2), Umatilla (5)

The numbers in bold indicate certified Level 1 inspectors and non-bold numbers indicate Level 2 inspectors.

#### County Sheriffs

Columbia (2), Clackamas (**1**+5), Douglas (1), Gilliam (1), Linn (1), Malheur (2), Marion (2), Washington (**2**+9), Yamhill (1)

#### Weighmasters

Clackamas County DOT (**4**), Douglas County (2), Jackson County (2), Lane County (6), Marion County Public Works (**1**)

The non-compensated MCSAP partners conducted 4,340 inspections in 2006 and found violations in 84% of the inspections. Most of their work involved Level 2 walkaround checks of trucks and drivers. As a result of these checks, they placed 6% of the drivers and 7% of the vehicles out-of-service for critical safety violations.

## rally the partners

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Oregon State Police currently has 8 troopers who are certified Level 1 inspectors and 237 who are Level 2 inspectors.

Under its Motor Carrier Safety Assistance Program (MCSAP) contract, the agency is reimbursed at a rate of \$110.05 per inspection done in conjunction with enforcement activities (after a probable cause traffic stop). The agency is reimbursed at a rate of \$500 for any inspection resulting in the arrest of a commercial driver for drug or DUII while operating a commercial motor vehicle (CMV). All inspections are to be conducted on public highways and at least 25% should be done during off-peak hours.

The MCSAP grant rules require that funds transferred to OSP must be based on inspections completed. While the grant does not allow OSP to be reimbursed for time spent in CMV enforcement activities, the inter-agency agreement between ODOT and OSP outlines expectations:



### **OSP Enforcement Expectations — Fiscal Year 2007**

|                                    |               |
|------------------------------------|---------------|
| Traffic enforcement of CMVs        | 20,000 hours* |
| Training of Patrol Division troops | 4,000 hours   |
| Investigation of CMV crashes       | 1,500 hours   |
| CMV-impaired driver enforcement    | 50 hours      |

\* Hours are approximate.

The inter-agency agreement also outlines expectations related to inspections:



### **OSP Inspection Expectations — Fiscal Year 2007**

|                                       |        |
|---------------------------------------|--------|
| Level 2 and 3 inspection completed    | 16,400 |
| Drivers placed out-of-service         | 1,600  |
| Trucks placed out-of-service          | 830    |
| Equipment and driver citations issued | 6,500  |





Motor Carrier Safety Assistance Program funds support special enforcement operations such as the Oregon State Police's biannual Operation Trucker Check. The program also supports an annual Commercial Vehicle Safety Alliance (CVSA) event called Roadcheck that provides a grand stage for rallying the partners statewide and across North America. Roadcheck is a three-day, round-the-clock inspection blitz that shines a spotlight on truck safety.

The 20th annual Roadcheck in 2007 involved a total of 7,708 federal, state, and local law enforcement officers working at 1,449 sites in the United States, Canada, and Mexico. They checked 62,370 trucks and buses, the most ever inspected in the history of Roadcheck. The total inspections included 49,454 Level 1 inspections, another Roadcheck record. Driver inspections resulted in 6.2% of drivers placed out-of-service, the highest driver rate since 1999.

Roadcheck 2007 yielded the following international results:

- 21.5% of vehicles placed out-of-service, down slightly from 21.7% in 2006.
- 6.2% of drivers placed out-of-service, up slightly from 5.6% in 2006.

In Oregon alone, Roadcheck 2007 rallied a total of 93 safety inspectors at 58 sites around the state and they inspected 746 trucks and drivers in the three-day period.

Oregon Roadcheck 2007 yielded the following state results:

- 39% of vehicles placed out-of-service, up sharply from 28% in 2006.
- 19% of drivers placed out-of-service, up sharply from 10% in 2006.

The four most common vehicle defects found by Oregon inspectors were related to tires and wheels, braking systems, safe loading, and suspensions. Almost all driver problems were related to hours-of-service compliance.

Roadcheck 2007 focused on enforcement and education of seat belt use among truck drivers. Oregon inspectors found only one seat belt violation during the exercise. The entire Roadcheck 2007 found only 829 seat belt violations, down significantly from the 1,223 violations found in 2006.





### Roster of Oregon Trusted Carrier Partners

[www.oregon.gov/ODOT/MCT/TCP.shtml](http://www.oregon.gov/ODOT/MCT/TCP.shtml)

#### Background

Carriers qualify for a Trusted Carrier plate by enrolling in Green Light and passing a review of registration, tax, and safety compliance. In the compliance review, Trusted Carriers are those with no Oregon suspensions or IFTA license suspensions in the past year. They will not have been involved in a carrier-related civil enforcement action, will not have more than one late tax report, and will not have entered into more than one repayment plan for discharging a liability with ODOT. In the safety review, Trusted Carriers cannot have an unsatisfactory safety rating or be involved in the PRISM safety improvement program. Their driver and vehicle out-of-service percentage must be at or below the national average and there can be no serious safety violations on record.

The inspiration for Oregon's program dates back to 1995 when the Oregon Legislature transferred the Motor Carrier program from the Public Utility Commission to ODOT. In a budget note, legislators stipulated that ODOT will consider a motor carrier self-monitoring program similar to Alberta's Partners in Compliance (PIC) program. The Alberta Motor Transport Association and the Alberta government established PIC in 1994 and it continues today. Canadian carriers apply to join and applications are judged by an independent board and government officials. PIC was inspired by an earlier provincial idea, called the Premier Carrier Program, that did not gain a foothold in Canada.

The Oregon partnership in the fight to reduce truck crashes includes about 1,000 motor carriers who have exceptional safety and regulatory compliance records. Oregon recognizes these carriers as Trusted Carrier Partners. This unique-to-Oregon program, which started in 1998, is part of the Oregon Green Light weigh station preclearance program. When one of these carriers equips a truck with a Green Light transponder, it gets a Trusted Carrier vanity plate for that truck. Trusted Carriers' trucks are the ones most likely to pass the weight, safety, and credential checks necessary to bypass weigh stations. These carriers have earned the right not to be subject to random safety inspection or safety compliance reviews, unless warranted. The program helps enforcement officers manage a growing stream of traffic. When they see a Trusted Carrier plate, they know to go on to another truck that is more likely to need their attention.

Trusted Carriers are very proud of their distinction. In 2006, customer satisfaction surveys were sent to 498 of these trucking companies and 187 responded. Every single one of them said they take pride in being a Trusted Carrier and 96% said they clearly derive benefits from that. Almost two-thirds of the companies (64%) said putting the plates on their transponder-equipped trucks helps them retain drivers and 85% said displaying the plate enhances their company's image in the eyes of the general public and helps them market their product (currently, more than 17,000 trucks display the plate). Almost all of the companies said the Trusted Carrier designation is a major incentive to maintain a good safety record (98%) and a major incentive to stay in compliance with other regulations like registration and road-use tax reporting (94%).

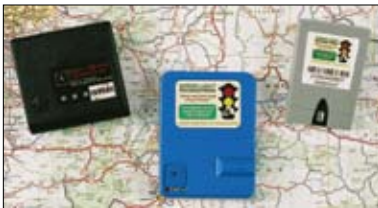
Oregon plans to engage more of these partners in peer-to-peer activities that will convince unsafe carriers to clean up their act. One persuasive way to talk to less-compliant carriers is in terms of cost. Trusted Carriers can explain, for example, that because of their safe and compliant records, they have lower insurance rates, less equipment downtime, fewer driver injuries and less rehabilitation costs.

More than 4,000 companies participate in the Green Light weigh station preclearance program and they've put Oregon transponders in over 42,000 of their trucks. All Green Light participants are partners in the fight to reduce truck crashes because they enable enforcement officers to efficiently and effectively weed traffic.



Green Light screens trucks to look for problems related to size, weight, height, registration, and highway-use tax account status. When inspectors are available, it can also screen trucks to pick out carriers with a history of safety problems.

Oregon records are linked to the national Safety and Fitness Electronic Records (SAFER) system that contains the most current information available regarding carriers and their safety history, including safety ratings, inspection summaries, and crashes. When Green Light screens truck traffic it can sort on the basis of a specific Inspection Selection System (ISS) value as well as specific out-of-service percentages from vehicle and driver inspections. It can sort on the basis of safety ratings and look for carriers with no rating or an unsatisfactory one. It can also sort on the basis of safety risk as determined by the national Safety Status Measurement System (SafeStat), although use of that automated, data-driven system for calculating the safety fitness of carriers has been suspended since mid-2004 while the Federal Motor Carrier Safety Administration works to improve the quality of crash data submitted by states.



Green Light transponders





## 5. Help enforcement officers

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To be effective, a safety inspector needs ready access to the best information available about motor carriers and drivers. Oregon inspectors rely on the Inspection Selection System (ISS) to pick out high-risk carriers, for example, because that algorithm and software program assigns a value to each carrier's safety performance based on crash history, inspection history, driver history, and safety management experience. When a carrier has little information on file, the ISS uses an insufficient data algorithm to show an inspection value based on carrier size and number of past inspections.

Oregon has developed additional tools to help truck safety enforcers do their job more efficiently and effectively. In 2000, the ODOT Motor Carrier Transportation Division introduced two software applications called Real Time and Enforcer.

Safety inspectors use Inspection Selection System (ISS) software that checks carrier and driver records and shows one of three recommendations:

| <u>Recommendation</u>                           | <u>ISS Inspection Value</u> |
|---|-----------------------------|
| <b>Inspect</b> ( <i>inspection warranted</i> )  | 75-100                      |
| <b>Optional</b> ( <i>may be worth a look</i> )  | 50-74                       |
| <b>Pass</b> ( <i>inspection not warranted</i> ) | 1-49                        |

Real Time collects the details of all enforcement activities and makes that available to inspectors and enforcement officers anywhere in the state. With Real Time, officers can call up records of citations, warnings, and scale crossings (weigh station event data) for any specific period of time. They can query the database by truck license plate number or carrier file/authority number. Inspectors routinely use this software when verifying a driver's logbook.

Enforcer brings efficiencies to the job of weighing and identifying trucks as they roll through weigh stations or get precleared by Green Light weigh-in-motion systems. At static scales, it allows motor carrier enforcement officers to quickly enter license plate numbers and then collect each truck's weight information. The software also automates the citation process by allowing officers to enter weight- or vehicle-related violation details on the computer screen and print a copy of the citation to hand to the driver.

Oregon may be the only state to have such sophisticated enforcement tools. Wyoming has extensive weigh station scale crossing records and Oregon often works closely with that state, sharing information critical to enforcing truck driver hours-of-service limits. But other states have generally made a decision not to collect records tracking truck traffic, in spite of the value of such records for audits related to vehicle registration, fuel tax, and weight-mile tax.



Oregon enforcement officers clearly have an advantage and the state has always offered its information from Real Time and Enforcer to states or provinces if they need it for enforcement purposes. Because such a great percentage of the trucking industry operates interstate and internationally today, this kind of cooperation can be invaluable to regulators.

## help enforcement officers

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Oregon's development of its Real Time software application led to creation of a unique Oregon service called OSCAR — Oregon Scale Crossings and Reports. The service makes information about weigh station activity available to authorized officials who need it. OSCAR reports provide details about truck scale crossings as well as citations and warnings issued. The information can be used, for example, by an inspector doing a Safety Compliance Review or a police officer checking a truck driver's logbook. State and federal enforcement officers just need a Trucking Online password in order to check activity for a certain truck or fleet. More than 100 federal and state officers now regularly use the service and in the most recent 12-month period they made 31,890 inquiries.

OSCAR is also available to trucking company officials authorized to obtain weigh station records about their own truck fleet. Many companies use scale crossings to verify trip records, which can help in completing Oregon highway-use tax reports. They check citations and warnings issued because sometimes drivers are afraid to tell them about enforcement actions. They also use OSCAR to crosscheck driver logbooks and ensure drivers are in compliance with hours-of-service limits. Hundreds of trucking companies now regularly use the service and in the most recent 12-month period they made 9,740 inquiries.

Until the invention of OSCAR, weigh station records were only available to those who submitted a formal request for information. That took time and it cost \$100 per request because programmers had to recover the records. Now OSCAR provides the information at no charge to authorized users.



# help enforcement officers

| Date Time            | Day       | TimeZone | Scale Location    | Scale | Plate    | State | Name              | Authority | Unit  | Gross | Type | Axles | Com | WM  |
|----------------------|-----------|----------|-------------------|-------|----------|-------|-------------------|-----------|-------|-------|------|-------|-----|-----|
| 01-Aug-07 02:10:41AM | Wednesday | PT       | Wyeth W           | 1402  | YARB595  | OR    | ACME TRUCKING INC | 234780    | 19251 | 363   | 8    | 7     | 2   | wml |
| 01-Aug-07 04:12:55AM | Wednesday | PT       | Wyeth W           | 1402  | YARB655  | OR    | ACME TRUCKING INC | 234780    | 19252 | 371   | 8    | 7     | 2   | wml |
| 01-Aug-07 05:35:56AM | Wednesday | PT       | Wyeth W           | 1402  | YARB661  | OR    | ACME TRUCKING INC | 234780    | 19253 | 365   | 8    | 7     | 2   | wml |
| 01-Aug-07 07:43:15AM | Wednesday | PT       | Wyeth W           | 1402  | YAEX305  | OR    | ACME TRUCKING INC | 234780    | 27188 | 334   | 8    | 8     | 2   | wml |
| 01-Aug-07 08:17:24AM | Wednesday | PT       | Rocky Point       | 2601  | YAPP500  | OR    | ACME TRUCKING INC | 234780    | 19288 | 1043  | 8    | 8     | 2   | wml |
| 01-Aug-07 08:24:43AM | Wednesday | PT       | Cascade Locks POE | 1404  | YABW111  | OR    | ACME TRUCKING INC | 234780    | 52867 | 689   | 3    | 5     | 2   | wml |
| 01-Aug-07 08:42:54AM | Wednesday | PT       | Cascade Locks POE | 1404  | YAPE870  | OR    | ACME TRUCKING INC | 234780    | 52980 | 444   | 3    | 4     | 2   | wml |
| 01-Aug-07 08:44:41AM | Wednesday | PT       | Cascade Locks POE | 1404  | YAPE870  | OR    | ACME TRUCKING INC | 234780    | 52980 | 422   | 3    | 4     | 2   | s04 |
| 01-Aug-07 08:48:23AM | Wednesday | PT       | Cascade Locks POE | 1404  | YARR601  | OR    | ACME TRUCKING INC | 234780    | 19253 | 1021  | 8    | 8     | 2   | wml |
| 01-Aug-07 08:49:41AM | Wednesday | PT       | Cascade Locks POE | 1404  | YARR601  | OR    | ACME TRUCKING INC | 234780    | 19253 | 1055  | 4    | 8     | 2   | c38 |
| 01-Aug-07 08:50:55AM | Wednesday | PT       | Cascade Locks POE | 1404  | YARS804  | OR    | ACME TRUCKING INC | 234780    | 11799 | 359   | 3    | 4     | 2   | wml |
| 01-Aug-07 08:51:19AM | Wednesday | PT       | Cascade Locks POE | 1404  | YACZ955  | OR    | ACME TRUCKING INC | 234780    | 51783 | 1005  | 8    | 7     | 2   | wml |
| 01-Aug-07 08:52:39AM | Wednesday | PT       | Cascade Locks POE | 1404  | YAEN144  | OR    | ACME TRUCKING INC | 234780    | 52775 | 789   | 3    | 6     | 2   | c38 |
| 01-Aug-07 08:52:45AM | Wednesday | PT       | Cascade Locks POE | 1404  | YACC956  | OR    | ACME TRUCKING INC | 234780    | 51783 | 1029  | 3    | 7     | 5   | s04 |
| 01-Aug-07 08:54:11AM | Wednesday | PT       | Cascade Locks POE | 1404  | YAF995   | OR    | ACME TRUCKING INC | 234780    | 27281 | 1014  | 8    | 8     | 2   | wml |
| 01-Aug-07 09:07:24AM | Wednesday | PT       | Cascade Locks POE | 1404  | YAEF160  | OR    | ACME TRUCKING INC | 234780    | 11223 | 400   | 3    | 4     | 2   | wml |
| 01-Aug-07 09:08:47AM | Wednesday | PT       | Cascade Locks POE | 1404  | YAEF160  | OR    | ACME TRUCKING INC | 234780    | 11223 | 410   | 3    | 4     | 2   | s04 |
| 01-Aug-07 09:09:18AM | Wednesday | PT       | Cascade Locks POE | 1404  | YACD900  | OR    | ACME TRUCKING INC | 234780    | 52776 | 450   | 3    | 5     | 2   | c38 |
| 01-Aug-07 09:14:01AM | Wednesday | PT       | Cascade Locks POE | 1404  | YAFI411  | OR    | ACME TRUCKING INC | 234780    | 11799 | 698   | 3    | 6     | 2   | s04 |
| 01-Aug-07 09:23:46AM | Wednesday | PT       | Rock Creek        | 304   | YADX321  | OR    | ACME TRUCKING INC | 234780    | 27159 | 85    | 5    | 8     | 0   | c06 |
| 01-Aug-07 09:31:06AM | Wednesday | PT       | Wyeth W           | 1402  | YADZ333  | OR    | ACME TRUCKING INC | 234780    | 27157 | 347   | 8    | 8     | 2   | wml |
| 01-Aug-07 09:59:20AM | Wednesday | PT       | Wyeth W           | 1402  | YARE633  | OR    | ACME TRUCKING INC | 234780    | 27144 | 1106  | 8    | 8     | 2   | wml |
| 01-Aug-07 10:20:18AM | Wednesday | PT       | Wyeth W           | 1402  | YABR122  | OR    | ACME TRUCKING INC | 234780    | 52767 | 240   | 1    | 3     | 2   | wml |
| 01-Aug-07 10:37:08AM | Wednesday | PT       | Cascade Locks POE | 1404  | YAFAP770 | OR    | ACME TRUCKING INC | 234780    | 27295 | 1003  | 8    | 8     | 2   | wml |
| 01-Aug-07 11:30:59AM | Wednesday | PT       | Rocky Point       | 2601  | YAFE144  | OR    | ACME TRUCKING INC | 234780    | 27288 | 1060  | 8    | 9     | 2   | wml |
| 01-Aug-07 11:32:25AM | Wednesday | PT       | Rocky Point       | 2601  | YAFE144  | OR    | ACME TRUCKING INC | 234780    | 27288 | 1054  | 5    | 9     | 4   | c61 |
| 01-Aug-07 11:41:40AM | Wednesday | PT       | Rocky Point       | 2601  | YAPN403  | OR    | ACME TRUCKING INC | 234780    | 19289 | 1047  | 8    | 8     | 2   | wml |
| 01-Aug-07 11:47:37AM | Wednesday | PT       | Wyeth W           | 1402  | YAFM020  | OR    | ACME TRUCKING INC | 234780    | 52800 | 0     | 8    | 10    | 0   | c93 |
| 01-Aug-07 11:51:16AM | Wednesday | PT       | Juniper Butte S   | 1604  | YAE0306  | OR    | ACME TRUCKING INC | 234780    | 27186 | 700   | 3    | 5     | 2   | wml |
| 01-Aug-07 11:53:50AM | Wednesday | PT       | Juniper Butte S   | 1604  | YADS106  | OR    | ACME TRUCKING INC | 234780    | 27150 | 984   | 8    | 8     | 2   | wml |
| 01-Aug-07 12:06:52PM | Wednesday | PT       | Juniper Butte S   | 1604  | YAGG898  | OR    | ACME TRUCKING INC | 234780    | 27120 | 963   | 8    | 8     | 2   | wml |

| Date Time            | Day     | Time | Scale | Scale | Plate   | State | ORS         | Violation                      | Driver Name         | Comments |
|----------------------|---------|------|-------|-------|---------|-------|-------------|--------------------------------|---------------------|----------|
| 21-Aug-07 03:08:00PM | Tuesday | PT   | Bend  | 906   | YAFB772 | OR    | ORS 818.020 | Exceeding maximum weight limit | WAYNE MICHAEL SMITH | TANDEM   |

| Date Time            | Day       | Time | Scale | Scale             | Location | Citation | Void              | Violation | Plate                | Driver Name | Authority |
|----------------------|-----------|------|-------|-------------------|----------|----------|-------------------|-----------|----------------------|-------------|-----------|
| 13-Aug-07 11:51:00AM | Monday    | PT   | 1402  | Wyeth W           | WM834354 | N        | ORS 818.020       | YADE465   | STEPHEN ROGER MORRIS | 234578      |           |
| 13-Aug-07 01:03:00PM | Monday    | PT   | 2408  | Woodburn N        | WM848909 | N        | ORS 818.340(5)(b) | YAEV114   | STEVEN J WILLIAMS    | 234578      |           |
| 15-Aug-07 01:00:00PM | Wednesday | PT   | 1404  | Cascade Locks POE | WM890330 | N        | ORS 818.340(5)(b) | YAFK889   | GORDON BEALL MILLS   | 234578      |           |

Oregon Scale Crossings and Reports — OSCAR — lets enforcement officers and trucking company officials check weigh station activity for a certain truck or fleet, including the citations and warnings issued for violations.







## 6. Get creative

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During brainstorming at a July 2007 meeting of the Oregon Motor Carrier Transportation Advisory Committee, one trucking company official had a suggestion: Why not develop an information campaign that shows how safe trucking companies save money? Profit margins in the industry are thin and they're much thinner for companies with poor safety records. Create something to make the point that safe and compliant motor carriers have lower insurance rates, less equipment downtime, and fewer driver injuries, to name just a few key advantages.



A truck owner-operator with a good driving record can expect to pay nearly \$9,000 per year for insurance alone (assuming \$5,000 for \$1 million liability insurance, \$500 for \$1 million non-trucking-use liability insurance, \$2,400 for physical damage insurance, and \$1,000 for cargo insurance). Developing material that explains how much more costly it is to have a poor driving record or a history of crashes is an example of the creative thinking needed to address the truck safety problem. In coming years, the Motor Carrier Transportation Division must farm for all such ideas and fresh approaches for delivering the safety message. It's time to get creative.

Besides the business side to the equation, there's no question that crashes bring tremendous societal costs. According to a recent study for the Federal Motor Carrier Safety Administration, the estimated cost of police-reported crashes involving trucks over 10,000 pounds averages \$91,112.

Other notable findings of the 2006 study include:

- Crashes involving truck-tractors with two or three trailers were the rarest, but their cost was the highest — \$ 289,549 per crash
- Crashes involving straight trucks with no trailers had the lowest cost — \$ 56,296 per crash
- Average cost of a property-damage-only crash — \$15,114
- Average cost of a non-fatal injury crash — \$ 195,258
- Average cost of a fatal crash — \$ 3,604,518

**Average cost of a crash  
involving a truck over  
10,000 pounds:**

**\$91,112**

Costs, in 2005 dollars, represent the present value, computed at a 4% discount rate, of all costs over the victims' expected life span that result from a crash. They include medical-related costs, emergency services costs, property damage costs, lost productivity, and the monetized value of the pain, suffering, and quality of life that the family loses because of a death or injury. Cost estimates exclude mental health care costs for crash victims, roadside furniture repair costs, cargo delays, earnings lost by family and friends caring for the injured, and the value of schoolwork lost.

**Unit Costs of Medium and Heavy Truck Crashes, 2006**, Final Report for Federal Motor Carrier Safety Administration, Federal Highway Administration

## get creative

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Motor Carrier Transportation Division managers were met with a flood of ideas when they gathered safety specialists for a two-day Safety Summit in October 2007. During brainstorming they heard dozens of suggestions for changes to laws and rules or agency policy and practices, along with ideas for collaboration and partnership with others outside ODOT.

Among the suggested changes to Oregon law were several that addressed driver fitness and qualifications. The group was especially concerned about employer and truck driver compliance with drug and alcohol testing requirements. They've been noticing issues in Safety Compliance Reviews and the periodic Operation Trucker Check tends to confirm the problem (see page 28).

Federal regulations require a motor carrier hiring a driver with a Commercial Driver License to check the person's driving record for the past three years. The carrier is also required to contact the previous employers for the past three years to ask if the driver ever tested positive for controlled substances or alcohol, or ever refused a test. But drivers who had a prior positive drug test will oftentimes try to keep that secret. When they apply for a job at a new trucking company, they don't list the former employer on their application.

Oregon law already requires that positive drug tests for Oregon CDL holders be reported to DMV, but DMV only releases a drug test record if a company requests it and submits written permission from the person subject to the report. Oregon Safety Compliance Reviews routinely find that companies have not conducted a complete background check of their drivers. Some companies check only the driving record and not also the drug test record. Some do that knowingly because there's a shortage of truck drivers and they don't want to learn about records that would disqualify an applicant.

With changes to state law, an Oregon employment driving record could include note of positive tests for either drugs or alcohol. And trucking companies could be required to contact DMV and request both the driving record and test record when they screen driver applicants. Legislators may also want to make it a requirement that an employment driving record include all instances of refusing to take either a drug or alcohol test. That would be appropriate since federal regulations consider refusal to take a test to be the equivalent of a positive test result. In another suggested change to law, a CDL holder could be suspended if he or she fails a drug and alcohol test and the suspension would remain in effect until the driver follows federal regulations to be requalified.



The Motor Carrier Division's Safety Summit yielded ideas for changes to laws and rules, but also suggestions related to enforcement and research. Here's a sampling of those suggestions:

### **Enhanced Enforcement**

- Truck crashes and the time they occur should be carefully plotted and police patrols should be deployed to those areas at those times. If a certain stretch of highway is plagued with crashes caused by car drivers, have police ride in trucks to videotape driver behavior and radio ahead so those violating traffic laws can be stopped. This would be similar to the Washington State Patrol ride-along program called "Step Up and Ride," which received a \$500,000 grant in 2005. SAFETEA-LU, Public Law 109-59, allows for motor carrier safety grant funds to be used for enforcement of traffic laws relating to noncommercial vehicles "when necessary to promote the safe operation of commercial motor vehicles."
- Explore ways to re-engage more law enforcement agencies as compensated partners in the Motor Carrier Safety Assistance Program (MCSAP). Prior to 2003 the compensated MCSAP partners included State Police and many other agencies, notably Multnomah and Washington County Sheriffs, Clackamas County, and police in Portland, Salem, and many other cities (see page 31). After 2003, Oregon MCSAP was reworked to provide compensation only for inspections by State Police. Other agencies have continued to participate in MCSAP under non-compensated agreements, but it may be time to consider if MCSAP should again be reworked.
- Train all Motor Carrier Division inspectors, including Motor Carrier Enforcement Officers, to be Drug Recognition Experts (DREs) so they can at least identify drug-impaired drivers and, with State Police help, get them off the road. DREs are trained to perform coordination and eye tests, checks of vital signs and muscle tone, and a visual check for evidence of drugs.
- Send a safety specialist to investigate whenever an Oregon carrier is involved in a crash. Visit the carrier's terminal to interview company officials and at least sample the records for all other company drivers to ensure drivers are qualified and in compliance with hours-of-service regulations.

### **Research**

- Researchers should investigate why drivers commit critical safety violations. Follow-up on drivers that were placed out-of-service, for example. If it involved hours-of-service violations, interview the drivers to see why they didn't follow the rules. Were they pressured to keep driving by their boss or shipper? Were they paid by the mile and needed to rack up more miles to make more money?
- Researchers should study crash records in other states, particularly western states, to check where Oregon stands. Survey the states with the lowest crash rates and determine what makes their safety programs so effective. Deliver a best practices manual to guide Oregon efforts in the future.





## 7. Listen up!

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Everyone has a stake in enhancing highway safety and everyone should know that Oregon has an open door policy about ideas and suggestions. The Oregon Department of Transportation does not have a monopoly on how to get the job done. While its Motor Carrier Transportation Division is employing a number of strategies to enhance truck safety, it welcomes critique and stands willing to try new approaches. In coming months the Division will reach out more than ever before to engage everyone and rally ideas for addressing truck safety problems. The more people get involved, the more they'll take ownership of the problems and invest in finding solutions.

In 2008, the Motor Carrier Division will post a Truck Safety Suggestion Box on its Web site — [www.oregon.gov/ODOT/MCT](http://www.oregon.gov/ODOT/MCT) — so visitors have an open invitation to send a comment or idea to safety managers. In the long run this will be a standard feature on the site, but in the first few months it will be advertised as an open forum about truck safety. The best ideas will be shared with the public, along with updates on implementation of those ideas. News of this Safety Suggestion Box will be included in the quarterly Oregon Motor Carrier News in order to further drum up interest.

The Division will conduct another customer satisfaction survey in 2008, the fifth time in ten years that it's done such a survey. Among the various customer groups contacted are trucking companies that were subject to a Safety Compliance Review, companies that had a truck inspected in Oregon, and truck drivers who were themselves subject to a driver inspection. Historically, the vast majority of companies surveyed have said they believe ODOT's motor carrier safety program has a positive effect on highway safety. The vast majority have been fully supportive of enforcement efforts, agreeing that putting drivers and vehicles out-of-service benefits safety, as does stopping trucks that are speeding or committing other traffic violations.

The image shows a customer survey form titled "Customer Survey - Salem Motor Carrier Services". The form includes a header with the Oregon Department of Transportation logo and the Motor Carrier Transportation Division name. Below the header, there is a section titled "How are we doing?" with a brief explanation of the survey and a request for participation. The main body of the form contains three sections: "TIMELINESS", "ACCURACY", and "HELPFULNESS", each with two questions and a grid for responses. The grid has five columns labeled "Excellent", "Good", "Fair", "Poor", and "Don't know".

|             |   | Excellent | Good | Fair | Poor | Don't know |
|-------------|---|-----------|------|------|------|------------|
| TIMELINESS  | 1. How do you rate the timeliness of the services provided by the Motor Carrier Transportation Division?  |           |      |      |      |            |
|             | 2. How do you rate the timeliness of the services provided by the Motor Carrier Transportation Division to provide services correctly the first time? |           |      |      |      |            |
| ACCURACY    | 1. How do you rate the timeliness of the services provided by the Motor Carrier Transportation Division?  |           |      |      |      |            |
|             | 2. How do you rate the timeliness of the services provided by the Motor Carrier Transportation Division to provide services correctly the first time? |           |      |      |      |            |
| HELPFULNESS | 1. How do you rate the helpfulness of Motor Carrier services?   |           |      |      |      |            |
|             | 2. How do you rate the helpfulness of Motor Carrier services?   |           |      |      |      |            |

Every survey project has proven to be a constructive way for managers to check their safety efforts. The most recent survey, for example, yielded several negative comments about consistency in enforcement, interpretation, and guidance. Inspectors were reportedly not always on the same page when they explained certain rules. The comments prompted Division Administrator Gregg Dal Ponte to declare, in the June Motor Carrier News, that "inconsistent enforcement or interpretation of regulations is unacceptable. If it happens, I want to get it straightened out. I'm encouraging everyone to . . . call a Motor Carrier Division manager when they get a conflicting message about regulations. If we can hear about it, we can resolve the problem. Don't wait for the next customer satisfaction survey in two years to tell us something's wrong. Please let us know so we can get it right."

In 2008, the Division will reexamine the survey forms that are sent to trucking companies and truck drivers. While continuing to ask the questions asked in the past, managers will consider adding several questions that will essentially mine for ideas about how to address safety problems.

Monday, June 4, 2007

## Trucks losing tires leave State Patrol at a loss

By Jennifer Sullivan — *Seattle Times* staff reporter

Imagine speeding down the freeway when suddenly, seemingly out of nowhere, a semi-truck tire hurtles toward your car. In the past, such incidents were rare. But in recent weeks, a Bothell man has been killed and several cars have been damaged in five separate accidents involving tires coming off of semi-trucks.

“It is unusual to have an incident when you have a commercial tire come off a vehicle and hit anybody,” said State Patrol spokesman Jeff Merrill. “To have five occurrences in the last month is just bizarre.” Merrill said each accident was caused by a different mechanical failure, making it difficult to detect any sort of pattern. “These types of failures most likely wouldn’t be discovered in a routine vehicle inspection by law enforcement,” he said. “These are failures that may have been picked up in maintenance or shop mechanics.”

But Larry Wilson, owner of the Democon Container Services truck that lost its tires and caused an accident that killed the Bothell man last month, said often there is no way for a company to know when a truck might lose a tire. “We spend \$50,000 to \$60,000 per month on maintenance. I think if it’s going to happen, it’s going to happen. It’s Murphy’s Law,” Wilson said. “It’s tragic. There’s nothing I can say that can make it better.”

Ron Heusser, who has been in the accident-reconstruction field more than 20 years, said he’s never seen so many accidents caused by truck tires. “It’s not common at all for wheels to come off,” said Heusser, who owns Engineering Accident Analysis in Kent. “Typically, it’s either a bearing failure that comes from lack of grease, oil or over-torquing or loose lug nuts.” Heusser is working with Democon and the State Patrol in reconstructing the fatal accident.

John Ellis, 31, was killed instantly May 11 after the van he was riding in was struck by a set of dual tires that came off a Democon Container Services truck on Interstate 5 near the Duwamish curves. The Democon truck lost a brake drum, which caused the truck’s rear dual tires to come off, bounce over the freeway median and strike the van traveling in the south-bound car-pool lane.

Two days later, tires came off a semi on Highway 202 near Fall City and sideswiped cars on Highway 202. No one was hurt, Merrill said.

On Tuesday, troopers responded to a 911 call involving a semi-truck’s tire that had struck a car on Interstate 90 near Issaquah. A Nissan Sentra was struck by dual tires that sped toward him as he was driving on I-90. The 19-year-old Tacoma man wasn’t hurt, but his car was damaged, Merrill said. The 49-year-old Seattle man driving the Iowa-based Ruan Transport truck that lost the tires was cited for having defective equipment and was required to make full repairs before continuing on I-90.

Wednesday afternoon, the tires fell off a semi-truck while it was traveling north on I-5 at Michigan Street in Seattle, Merrill said. The truck was in the far right lane, so the tires rolled off to the shoulder. No other cars were hit.

Wednesday night, an Issaquah man called 911 to report finding a large semi-truck tire on his patio. The tire came off a semi on I-90, which is a few blocks from the man’s home, bounced off the roadway and struck the roof of a nearby house — causing damage — before destroying the man’s patio furniture, Merrill said.

According to a 1992 analysis by the National Transportation Safety Board (NTSB), wheel-separation accidents made up a small percentage of all highway truck accidents in 1989 and 1990. The NTSB study is the most recent into wheel-separation accidents. The analysis came from Alabama, Oregon, South Carolina, South Dakota and Washington — the only states that tracked accidents involving tires that came off semi-trucks, said NTSB spokesman Ted Lopatkiewicz. Those states reported 274 truck accidents those two years. The NTSB thinks that, of the total 349,000 truck accidents on U.S. highways during that period, fewer than 1,050 were the result of tires coming off, Lopatkiewicz said.

The State Patrol’s Commercial Vehicle Division is looking into whether there is anything it can do to stop such accidents. But, Merrill said, it’s doubtful. “Really, there is nothing you can do to avoid it. We ask drivers to pay attention to debris and pay attention to traffic around you,” he said. “We still contend this is a unique series of events.”

## 8. Encourage the innovators

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What are the odds that five truck wheel separation incidents would occur in one state within weeks of each other? Whatever the odds, it really doesn't matter to the Washington residents who witnessed the incidents in 2007.

In May, a man was killed when a set of dual tires came off a truck on I-5 near Seattle, bounced over the freeway median, and struck the van in which he was a passenger. Two days later, tires came off a truck on WA202 and sideswiped cars. Later that month, a truck's dual tires came off and struck a car on I-90. In yet another incident, tires fell off a truck on I-5 and rolled to the shoulder. And in the fifth incident a man reported finding a truck tire on the patio of his home a few blocks from I-90. On its way, the tire had struck the roof of a nearby house before destroying the man's patio furniture.

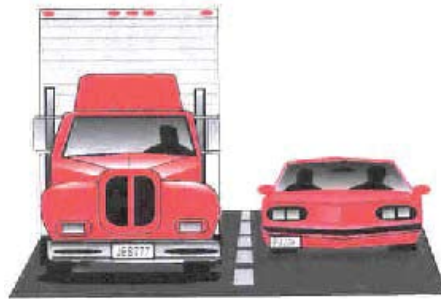
Every year thousands of trucks have wheel bearing failures that result in wheel loss crashes leading to death, injury, and property damage. While some may shrug it off to bad luck or Murphy's Law, two Oregonians have studied the problem and invented a solution.

Nels Melberg and John Ekman have founded Revolutionary Safety Innovations (RSI) in order to promote a Hub-Lock Wheel Retention System that offers a cost effective way to prevent wheel loss due to bearing failure. The system features a safety restraint nut that stops wheel separations and an early warning device that detects and reports oscillation and overheating. The invention earned national attention after RSI demonstrated it in September 2007 to officials attending a Commercial Vehicle Safety Alliance workshop in Pittsburgh.

According to the Federal Motor Carrier Safety Administration's Large Truck Crash Causation Study, tire and wheel failure accounts for about 1,000 crashes per year. Other studies have found that wheel failures in general account for 1% of all truck crashes, although it's recognized that the majority of wheel loss incidents go unreported.

These may seem like small numbers compared to the total crashes that occur in a year, but the road to enhanced truck safety has room for every good idea. Oregon encourages safety innovators like Melberg and Ekman to keep working the problems. Relatively few truck-at-fault crashes are mechanical related and improvements like the Hub-Lock Wheel Retention System help ensure that doesn't change.







## 9. Educate

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While regulatory enforcement is critical to ensuring the safety of trucking operations, education and outreach is fundamental to the effort. Mention of the need to educate both car and truck drivers about sharing the road safely is always a component of Oregon's annual Commercial Vehicle Safety Plan (see page 15). The state must intensify its public information campaigns in order to raise public awareness.

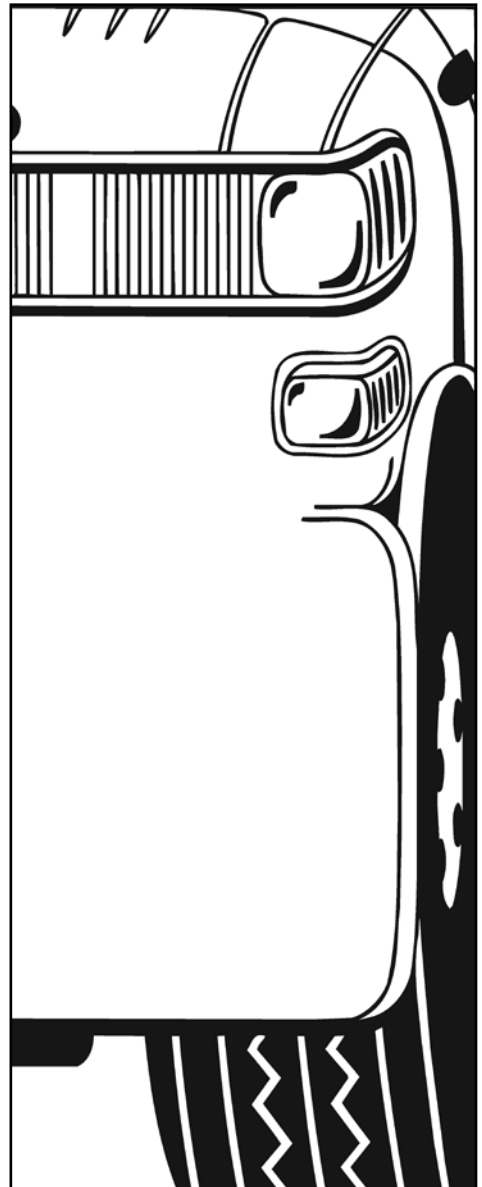
Improvements in truck and bus safety don't happen by chance. Reductions in crashes involving commercial motor vehicles can be achieved when truck and bus companies, their drivers, bus passengers, and the public at large are all better informed about matters of safety and security regarding these large vehicles.

Federal Motor Carrier Safety Administration (FMCSA) —  
[www.fmcsa.dot.gov/about/outreach/outreach.htm](http://www.fmcsa.dot.gov/about/outreach/outreach.htm)

The Motor Carrier Transportation Division believes that its first education-related responsibility is to ensure that new trucking companies are in compliance and getting off to a safe start in business. In 2006, Division staff began conducting New Carrier Entrant safety audits of new interstate operators. Staff expects to complete well over 600 of these audits each year.

New Entrant audits are usually done at a carrier's place of business, although group audits can be arranged. An audit takes 2-4 hours to interview the motor carrier official, review safety management systems and operating practices, and sample records. The process essentially provides a way to stress education before enforcement. The interview covers 72 safety-related questions, including 19 related to hazardous materials. It's a pass/fail audit that very few fail, but those who do fail some aspect of it receive a "Notice to Remedy" and have 45 days to correct the problem.

Each audit reviews safety regulations related to insurance/financial responsibility, accident records, equipment and maintenance records, driver qualifications, CDL license standards, driver records of duty status, drug and alcohol testing, and hazardous materials records, if applicable. If an auditor discovers certain critical safety problems, it triggers a formal Safety Compliance Review. Critical problems include failing to have a drug and alcohol testing program, allowing or requiring a disqualified or impaired driver to drive, allowing or requiring the operation of a vehicle declared out-of-service, and being involved in a significant crash or an accident involving hazardous materials.



# educate



Oregon benefits from national efforts to spread truck safety messages. The Commercial Vehicle Safety Alliance (CVSA) and the Federal Motor Carrier Safety Administration (FMCSA) actively help states with both enforcement and education.

One new national safety initiative — Operation Safe Driver — was launched in October 2007 to increase commercial and non-commercial vehicle driver performance through enforcement and education. Operation Safe Driver was spawned by results of the FMCSA's Large Truck Crash Causation Study, which found that actions or inactions by both car and truck drivers accounted for 88% of the critical reasons for crashes. Only 12% of crashes were caused by vehicle, road, or weather factors. The study also found that in multi-vehicle crashes between cars and trucks, the car driver was assigned the critical reason for the crash 56% of the time and the truck driver accounted for the other 44%.

Operation Safe Driver is a weeklong campaign during which CVSA draws attention to the many innovative approaches states are using to enhance driver performance. Two model approaches promoted by CVSA are programs called TACT and Smooth Operator.

Since 2005, the Washington State Patrol has been periodically conducting exercises called TACT — Ticketing Aggressive Cars and Trucks — in order to heighten awareness and reduce unsafe driving behaviors by both cars and trucks in four high-crash interstate corridors. When a five-day TACT exercise was held in June 2007, eight troopers stopped 822 drivers on I-90 for aggressive driving violations such as speeding, improper lane change, and following too closely. In addition to a citation or warning, every driver received a TACT pamphlet with tips on sharing the road. Before the exercise and while it was underway, over 700 radio and television commercials were aired in eastern Washington and northern Idaho to promote the program. Road signs were also placed along the interstate reminding drivers to be safe.

Since 1997, Maryland, Virginia, and Washington, D.C., have been partners in a similar public safety program. Called Smooth Operator, it periodically has police focus on traffic offenses closely associated with aggressive driving, including speeding, following too closely, red-light running, traffic-sign violations, driving while intoxicated, driving under the influence of drugs, reckless driving (including passing school buses), improper passing, unsafe lane changes, and failing to yield. In ten years of Smooth Operator exercises, enforcement officers have issued more than 900,000 citations and warnings throughout this mid-Atlantic region.

**OPERATION SAFE DRIVER**

Increasing Driver Performance through Enforcement and Education

**OPERATION SAFE DRIVER OBJECTIVES**

1. Increase vehicle traffic enforcement activity.
2. Increase safety belt enforcement activity.
3. Increase driver roadside inspections.
4. Increase driver regulatory compliance.
5. Implement commercial driver educational and awareness programs to the motor carrier population.
6. Increase the awareness to the motoring public about safe operations around commercial motor vehicles.

**The solution starts with you, the driver.**

**Commercial Vehicle Safety Alliance**  
Promoting Commercial Motor Vehicle Safety and Security  
1700 17th Street, NW | St. Louis, MO 63103  
Phone: (314) 775-1422 | Fax: (314) 775-1424  
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**WHAT CAR DRIVERS NEED TO KNOW ABOUT TRUCKS AND BUSES**

Truck and bus drivers will tell you many stories about being cut-off or passed by a car and the car driver proceeds to put on their brakes or dash to the next exit. You never hear of the near misses, accidents that ALMOST happened, on the local or national news – yet EVERYONE has their own story about this. And it’s not what you drive around big trucks and busses that matters, it’s HOW you drive.

If we could put every member of the public in a truck or bus for a day, there would be a lot more awareness and a lot less crashes. But since we can’t do that, get familiar with the following eight keys to keeping safe around big rigs. One or all of these could save your life.

1. Never cut in front of a truck. A fully loaded truck can take 400 feet (more than the length of a football field) to stop and the odds are that you or someone driving next to you could be killed as a result of your driving.
2. Keep a safety cushion around trucks. Try to leave a 10-car length gap when in front of a truck and 20-25 car lengths when behind a truck. An average passenger car traveling at 55 miles per hour takes about 130 to 140 feet to stop.
3. Never linger alongside a truck. Cars can momentarily “disappear” from view due to blind spots.
4. Pass trucks quickly to increase visibility and reduce dangers associated with lingering beside a truck.
5. Only change lanes when you can see both of the truck’s headlights in your rearview mirror.
6. If possible, pass a truck on the left, not on the right, because the truck’s blind spot on the right runs the length of the trailer and extends out three lanes.
7. Check a truck’s mirrors. If you are following a truck and you cannot see the driver’s face in the truck’s side mirrors, the truck driver cannot see you.
8. Allow trucks adequate space to maneuver. Trucks make wide turns at intersections and require additional lanes to turn.

**WHAT TRUCK DRIVERS NEED TO KNOW ABOUT CAR DRIVERS**

As a professional driver you face a lot of stress and pressure each day just trying to do your job. Maneuvering through congested highways with aggressive car drivers darting around you and everyone is in a rush to get where they are going because time is money.

It may make you want to gamble a bit by taking unnecessary risks. But your risk goes up exponentially for each violation you receive. The seriousness of violations is more than monetary, unless you’re willing to pay with your life. And we’re not just talking about your life. When you gamble, you are also gambling your family’s future and the future of many innocent others. Don’t take that gamble, it’s just not worth the risk.

1. Pre-inspect the condition of your vehicle before and check for load securement. Maximize the vision around your truck with properly adjusted mirrors. Be sure your mirrors are properly set and clean.
2. Get in a safe mindset!
3. Buckle up! It is your last line of defense!
4. Obey speed limits and traffic signs. Excessive speed reduces your ability to avoid a crash, extends your vehicle’s stopping distance, and increases the severity of a crash when it occurs. Slow down in bad weather and at construction zones.
5. Maintain a safe following distance. Follow other vehicles at a safe distance (3-5 second rule).
6. Make only safe and necessary lane changes. Pick a lane and stay in it for as long as possible. Lane changes increase one’s risk of an accident.
7. Focus on your driving, not the distractions! Avoid or minimize in-truck distractions such as cell phone use, changing CDs, eating, or other activities that can remove your attention from the road.
8. Never drive under the influence! Watch out for other motorists whose driving behavior suggests they may have been drinking.
9. Get enough sleep. Sleep deprivation and fatigue can cause lapses in attention, slowed awareness, and impaired judgment.

Operation Safe Driver Brochure, Commercial Vehicle Safety Alliance/Federal Motor Carrier Safety Administration, 2007

## educate

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The Motor Carrier Transportation Division's public information campaign in coming years will feature a number of different messages spread a number of different ways. The Division's modus operandi will change as it shifts from a reliance on public service announcements and the distribution of informational brochures to experiments with new mediums. It will explore the potential for delivering truck safety messages in publications, such as the American Automobile Association's *Via* magazine, on billboards, at movie theaters, at transit malls, at truck stops, on the sides of trucks and buses, and at ODOT facilities, including weigh stations and DMV offices.

The Division is excited about one project in which it will produce an Oregon version of a video demonstrating how to safely share the road with trucks. Some time ago, the California DMV produced a 1½-minute video that effectively shows truck drivers have blind spots called No Zones (see page 53). Trucks seemingly provide drivers with a commanding view to the front, and they clearly have the benefit of larger mirrors, but it's difficult or impossible for them to see certain areas beside a truck and behind it. In October 2007, everyone received a terrible reminder of this constant danger when two Portland bicyclists were killed within two weeks of each other. In one of the incidents, the bicyclist was stopped in the bike lane alongside a cement truck at a downtown intersection. The truck's right turn signal was on. But the bike was in the truck's blind spot so the driver did not see it when he turned with the green light and, tragically, struck the bicyclist. From 2000 through 2006, a total of 40 truck / bicycle crashes occurred throughout Oregon, resulting in five deaths and 31 injuries. The truck was at-fault in seven of the crashes.

**Safety-related information available from the  
Federal Motor Carrier Safety Administration:**

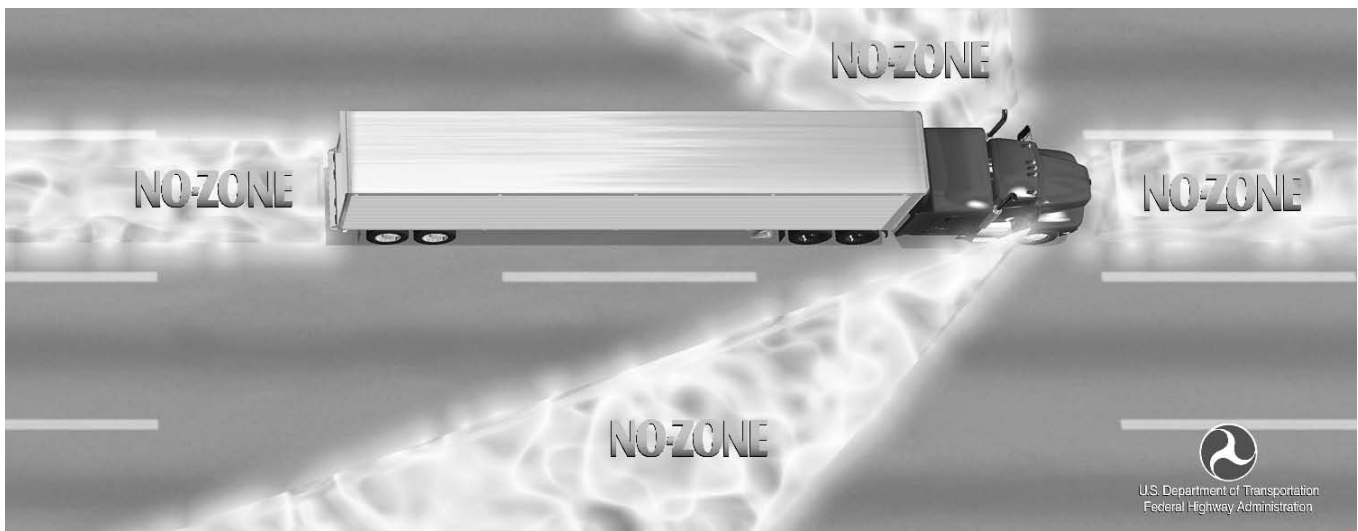
*Motor Carrier's Guide to Improving Highway Safety*  
[www.fmcsa.dot.gov/safety-security/eta/index.htm](http://www.fmcsa.dot.gov/safety-security/eta/index.htm)

*Safety is Good Business — Crashes Hurt Your Bottom Line*  
[www.fmcsa.dot.gov/safety-security/good-business/index.htm](http://www.fmcsa.dot.gov/safety-security/good-business/index.htm)

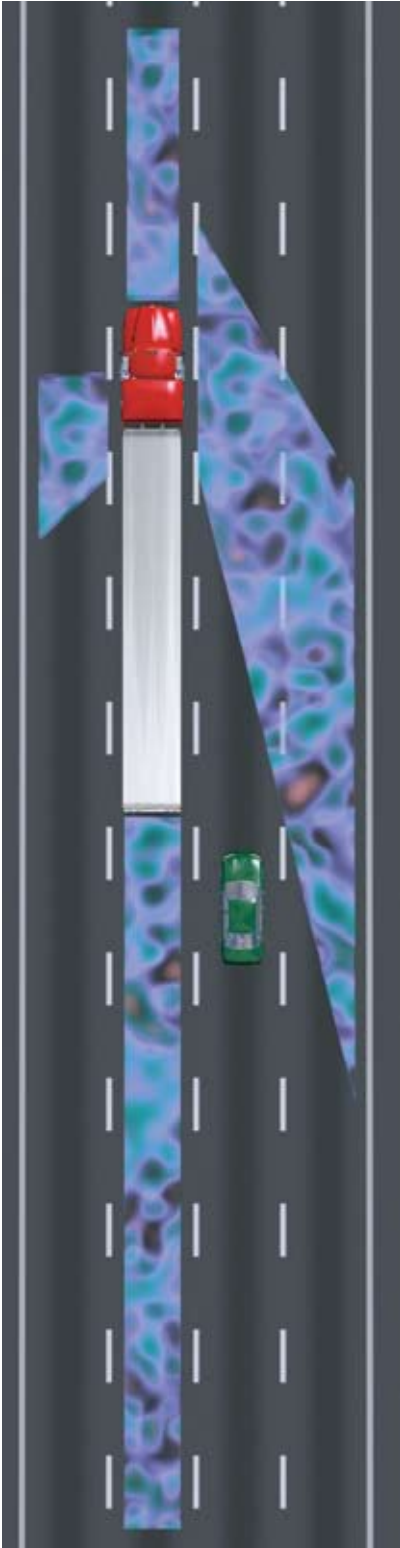
*Commercial Motor Vehicle Safety Belt Program*  
[www.fmcsa.dot.gov/safety-security/safety-belt/index.htm](http://www.fmcsa.dot.gov/safety-security/safety-belt/index.htm)

*Share the Road Safety Program*  
[www.sharetheroadsafely.org/](http://www.sharetheroadsafely.org/)

*Truck and Bus Driver Wellness Programs*  
[www.fmcsa.dot.gov/about/outreach/dsweek/driverwellness.htm](http://www.fmcsa.dot.gov/about/outreach/dsweek/driverwellness.htm)



Some time ago, the California DMV produced a short video showing what a truck driver can and cannot see from the cab of a truck. The Oregon DMV has posted the video on its Web site — [www.oregon.gov/ODOT/DMV/docs/breeze/NoZone/index.htm](http://www.oregon.gov/ODOT/DMV/docs/breeze/NoZone/index.htm)



**First, we see the driver beside his truck,**



**and then from the cab.**



**Looks all clear when checking the left side mirror.**



**Looks all clear out the front windshield.**



**Looks all clear when checking the right side mirror.**



**Then we see the driver exit his truck.**



**Now zoom out and here's what was around him — four cars in his No Zones!**





## Discussion of Terms

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Safety conversations are often peppered with certain terms that have become preferred based on an underlying message. Those most knowledgeable of the subject are familiar with the terminology, while the man or woman on the street continues to merely follow common usage guidelines. It can make for unnecessarily awkward conversations, such as when one person talks about an accident with someone who refers to it as a crash. What's the difference? Some say there's a big difference. Here's a discussion of several terms used in this publication:

**Is it an accident or a crash?** This publication consistently uses the term “crash” because an “accident” implies that it's no one's fault. It promotes the idea that the event is beyond control. But safety officials will tell you that accidents are actually quite predictable. Years ago, the National Highway Traffic Safety Administration produced a brochure entitled “A Crash Is Not An Accident” and presented its argument for why people should always use the term “crash.”

Changing the way we think about events, and the words we use to describe them, affects the way we behave. Motor vehicle crashes and injuries are predictable, preventable events. Continued use of the word “accident” promotes the idea that these events are outside human influence or control. In fact, they are predictable results of specific actions. Since we can identify the causes of crashes, we can take action to prevent them, to alter their effects, and avoid injuries. Crashes are preventable. Injuries are avoidable.

“Crash”, “collision”, “incident”, and “injury”, should be encouraged as substitutes for the word “accident”. In this way we will focus attention on the causes of crashes, preventing collisions, decreasing incidents, and avoiding injuries.

**Is it a seat belt or a safety belt?** This publication uses the term “seat belt” because it's the most familiar and it aids readability. But safety officials are making a push to get drivers to think of this safety feature in a more meaningful way — as a “safety belt.” If drivers would make the transition, every time they look at a seat belt they would think safety. If more drivers would think safety, fewer would be injured or killed in crashes.

**Is it a commercial motor vehicle or a truck?** This publication uses both terms, but uses “truck” more often because it's the most familiar term and it aids readability. Safety officials prefer to use the term “commercial motor vehicle,” however, and they commonly use the acronym “CMV” because by definition (49 CFR Part 390.5) certain trucks and buses are subject to federal motor carrier regulation and others are not. “Commercial motor vehicle” means any self-propelled or towed motor vehicle used on a highway in interstate commerce to transport passengers or property when the vehicle: (1) Has a gross vehicle weight rating or gross combination weight rating, or gross vehicle weight or gross combination weight, of 4,536 kg (10,001 pounds) or more, whichever is greater; or (2) Is designed or used to transport more than 8 passengers (including the driver) for compensation; or (3) Is designed or used to transport more than 15 passengers, including the driver, and is not used to transport passengers for compensation; or (4) Is used in transporting material found by the Secretary of Transportation to be hazardous under 49 U.S.C. 5103 and transported in a quantity requiring placarding under regulations prescribed by the Secretary under 49 CFR, subtitle B, chapter I, subchapter C.

## References

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### **Crash Totals — page 1**

Crash totals represent those involving a fatality, injury, or damage requiring a vehicle be towed away — the definition of an accident as set in federal safety regulations, Part 390.5. Totals are as of July 2007, and are subject to change as accident reports are often submitted late.

### **Crash Rates — page 2**

Chart Sources: Large Truck Crash Facts 2005,

Federal Motor Carrier Safety Administration, Analysis Division, Tables 13-18

<http://ai.fmcsa.dot.gov/CarrierResearchResults/HTML/2005Crashfacts/2005LargeTruckCrashFacts.htm>

Oregon DOT Transportation Development Division, Crash Analysis & Reporting Unit

### **State Safety Data Quality — page 17**

Oregon Historical Report:

<http://ai.volpe.dot.gov/DataQuality/DataQuality.asp?redirect=OnePageSummary.asp>

### **Truck Crash Causation Study — page 19**

Federal Motor Carrier Safety Administration Report to Congress:

<http://www.fmcsa.dot.gov/facts-research/research-technology/report/ltccs-2006.htm>

### **Predicting Truck Crash Involvement — page 21**

Predicting Truck Crash Involvement: Developing a Commercial Driver Behavior Model and Requisite Enforcement Countermeasures

American Transportation Research Institute, North Dakota State University Upper Great Plains Transportation Institute, Commercial Vehicle Safety Alliance (CVSA)

Transportation Research Board, 85th Annual Meeting -- 2006 -- Paper #06-2850

Daniel C. Murray, Brenda Lantz, Steve Keppler

<http://pubsindex.trb.org/document/view/default.asp?lbid=777701>

### **Oregon vs. National Inspection Activity — page 23**

Federal Motor Carrier Safety Administration, Motor Carrier Management Information System

March 23, 2007, data snapshot of inspections conducted on motor carriers that transport property in interstate or intrastate commerce.

### **Inspection Selection System — page 37**

The Inspection Selection System with Driver Conviction Data (ISS-D)

<http://www.ugpti.org/tssc/projects/downloads/ISS-DAlgorithm.pdf>

### **Crash costs — page 41**

Unit Costs of Medium and Heavy Truck Crashes, Final Report for FMCSA, FHWA

Eduard Zaloshnja, Ted Miller

<http://ai.fmcsa.dot.gov/CarrierResearchResults/WordFiles/Crash%20Costs%202006.doc>



## Oregon Department of Transportation

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**Oregon Department of Transportation**

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**[www.oregon.gov/ODOT/MCT/](http://www.oregon.gov/ODOT/MCT/)**

**[www.oregon.gov/ODOT/MCT/SAFETY.shtml](http://www.oregon.gov/ODOT/MCT/SAFETY.shtml)**

