Commercial Motor Vehicle (CMV) Crash Reporting Communications and Training Plan
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Background and Purpose
In 2017, the Texas A&M Transportation Institute (TTI) was funded by the Federal Motor Carrier Safety Administration (FMCSA) to complete a project addressing the reporting of commercial motor vehicle (CMV) crashes with a focus on large trucks.

The purpose of the “Commercial Motor Vehicle Crash Reporting Communications and Training Plan” is to communicate the importance of accurate CMV crash reporting to law enforcement officers and other stakeholders, as well as to communicate available training opportunities for law enforcement officers.

Goals and Intended Outcomes
The overall goals of this communication plan are to:

- Identify and describe available tip cards and educational materials for law enforcement officers
- Identify and describe available trainings on CMV crash reporting for law enforcement officers
- Improve law enforcement officers’ understanding of the importance of accurate CMV crash reporting
- Promote training of law enforcement officers in CMV crash reporting

Audience
This document is intended to be used by several stakeholders, including:

- Law Enforcement Officers
  - Local Agencies
    - Municipal/County Police Departments
    - Sherrif’s Offices
  - Texas Department of Public Safety (TxDPS)
- Crash Data Stakeholders
  - Texas and Other State Departments of Transportation (e.g., TxDOT)
  - TxDPS
  - FMCSA
  - US Department of Transportation (US DOT)
Commercial Motor Vehicle (CMV) Crash Reporting Communications and Training Plan

- Research Agencies

**Messages**
The following are messages featured in the communication plan and can be used to promote training. The following section groups messages by their key themes.

- **Need for CMV Crash Reporting Training**
  - Accurate CMV crash reporting supports effective resource allocation
  - CMV specific crash reporting training is needed
  - All stakeholders benefit from accurate CMV crash reporting
  - All officers should have a basic understanding of CMV crash reporting
  - CMV crash data is used to satisfy requirements listed in the Commercial Driver License Law
  - CMV crash data is useful for regulating carriers through the Motor Carrier Safety Program

- **Addressing Barriers to Training**
  - CMV crash training can be low or no cost
  - CMV crash training can occur during roll calls

- **Misperceptions (e.g., I do not handle CMV crashes)**
  - All officers should have a basic understanding of CMV crash reporting
    - You never know when you will encounter a CMV crash
Methods

Available Tip Cards and Educational Materials

Federal and State Agency Review
Several past and current projects at TTI involved the identification of CMV configurations and hazmat placards; therefore, the first step was to collect available tip cards included in previously acquired resources. An extensive internet review followed. Multiple search term combinations were used to capture visor tip cards and other educational materials that could be beneficial to law enforcement during a CMV-involved crash. Search terms included:

- Commercial vehicle/CMV/truck incident/crash/accident visor/tip cards
- Commercial vehicle/CMV/truck incident/crash/accident reporting
- Commercial vehicle/CMV/truck incident/crash/accident reporting visor/tip cards
- Crash report visor cards for law enforcement
- State DOT crash report visor card
- Commercial vehicle/CMV/truck incident/crash/accident video
- Commercial vehicle/CMV/truck incident/crash/accident reporting video
- Commercial vehicle/CMV/truck incident/crash/accident reporting video cards
- Crash report video for law enforcement

Next, document searches were completed on federal agency websites. As part of the extensive internet search, several states appeared to be active in this topic area. For these states, a review and search of state agency websites were performed to capture any relevant tip cards.

Lastly, YouTube was searched for relevant training videos that could potentially be utilized for roll call trainings.

TTI Educational Materials
As part of this FMCSA funded project, TTI also designed two tip cards that are available to law enforcement officers which include information on how to identify CMVs, responsible carriers, and DOT numbers. In addition, TTI prepared example information plates and registration receipts for officers to familiarize themselves with identifying information found in the CMV crash section in Texas.
Available Trainings

The training list was compiled by firstly identifying commercial motor vehicle (CMV) or large truck trainings provided by FMCSA as specified in their website. Secondly, trainings were identified from the International Association of Directors of Law Enforcement Standards and Training (IADLEST) website. IADLEST is an association of training managers and leaders with a focus on establishing common standards for criminal justice training. Trainings on crash investigation and reconstruction of CMVs and large trucks were identified. Next, relevant trainings provided or listed by organizations other than FMCSA and IADLEST were identified through Google search using specific keywords. Keywords included the following:

- Crash reconstruction
- Crash investigation
- CMV crash reconstruction
- CMV crash investigation
- Large truck crash reconstruction
- Large truck crash investigation
- Commercial vehicle crash reconstruction
- Commercial vehicle crash investigation

Lastly, the Texas Commission on Law Enforcement’s (TCOLE) course list was searched for relevant CMV courses.
Results

The following sections highlight: 1) Available Tip Cards and Educational Materials and 2) Available Training Opportunities for Law Enforcement Officers.

Available Tip Cards and Educational Materials

The extensive search and review of state agencies revealed limited CMV visor cards outside those produced by the FMCSA. Table 1 contains the five visor tip cards produced by FMCSA that are directly beneficial to crash reporting. Often, state agency websites directed users to these tip cards instead of producing their own.

Table 1. CMV-Related Tip Cards Beneficial to Crash Reporting.

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Classification</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMCSA</td>
<td>Federal</td>
<td>Truck and Bus Crashes Reportable to FMCSA (Blue)</td>
<td>Provides criteria and thresholds for reporting of a truck and bus crash. Includes a description and examples of CMVs.</td>
</tr>
<tr>
<td>FMCSA</td>
<td>Federal</td>
<td>How to Find the Responsible Carrier and Correct U.S. DOT Number (Red)</td>
<td>Provides instructions and examples on how to identify the responsible carrier and correct U.S. DOT number.</td>
</tr>
<tr>
<td>FMCSA</td>
<td>Federal</td>
<td>Vehicle Configuration &amp; Cargo Body Type (Green)</td>
<td>Graphically depicts 15 cargo body types and nine vehicle configurations.</td>
</tr>
<tr>
<td>FMCSA</td>
<td>Federal</td>
<td>Commercial Driver's License (CDL) (Orange)</td>
<td>Provides graphics and descriptions of the different types of CDL endorsements and CMV groups.</td>
</tr>
</tbody>
</table>

Table 2 contains additional CMV-related tip cards from FMCSA, mostly presenting safe operational information to CMV operators. Additionally, one visor tip card from the Federal Highway Administration could be beneficial to law enforcement during the investigation of a CMV-involved crash.
## Table 2. Other CMV-Related Tip Cards.

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Classification</th>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FHWA</td>
<td>Federal</td>
<td>Suspected Serious Injury (A) Classifications</td>
<td>Provides a checklist of seven suspected serious injuries (A) classifications.</td>
</tr>
<tr>
<td>FMCSA</td>
<td>Federal</td>
<td>7 Steps for Safety Highway-Rail Grade Crossings</td>
<td>Lists seven safety tips for operating CMVs over highway-rail grade crossings.</td>
</tr>
<tr>
<td>FMCSA</td>
<td>Federal</td>
<td>What to Do if Your Vehicle Stalls or Hangs Up on the Tracks</td>
<td>Provides instructions and emergency contact information in the event that a CMV becomes stuck on a highway-rail grade crossing.</td>
</tr>
<tr>
<td>FMCSA</td>
<td>Federal</td>
<td>GPS Selection Guide for CMVs</td>
<td>Provides guidance in selecting GPS systems for CMV use, along with tips for safe use of GPS navigation systems.</td>
</tr>
<tr>
<td>FMCSA</td>
<td>Federal</td>
<td>Commercial Tire Safety Tips</td>
<td>Provides tire safety tips and graphics/tables for understanding proper tire inflation, selection, and speed rating.</td>
</tr>
<tr>
<td>FMCSA</td>
<td>Federal</td>
<td>Hours-of-Service (HOS) Regulations - Comparison</td>
<td>Based on the regulation upon release (October 2013), provides a summary of the HOS rule and a comparison of current rule to prior rule</td>
</tr>
<tr>
<td>FMCSA</td>
<td>Federal</td>
<td>ELD Tip Card</td>
<td>Provides guidance for officers and drivers/carriers on ELDs.</td>
</tr>
</tbody>
</table>
Table 3 and Table 4 describe additional educational documents and videos on commercial motor vehicle crash reporting that are publicly available and free. In addition to the resources described below, specific information on CMV crash reporting can be found in the CR-100 State of Texas Instructions to Police for Reporting Crashes which is publicly available at: https://www.txdot.gov/government/enforcement/crash-records.html. Other state crash manuals may or may not have a specific section for CMV reporting.

### Table 3. Publicly Available Educational Documents

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Classification</th>
<th>Title</th>
<th>Description</th>
<th>Material Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMCSA</td>
<td>Federal</td>
<td>Commercial Motor Vehicle Awareness Training</td>
<td>The nine-page document provides law enforcement officers with information for handling crashes and traffic stops involving CMVs.</td>
<td>PDF</td>
</tr>
<tr>
<td>FMCSA</td>
<td>Federal</td>
<td>Tip Sheet: Education Related Transportation Understanding Federal Regulations for Passenger Carriers</td>
<td>The brief tip sheet provides information on passenger vehicles, including when these vehicles are regulated, commercial regulations, safety regulations, and exemptions.</td>
<td>PDF</td>
</tr>
</tbody>
</table>
Table 4. Publicly Available Educational Videos

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Classification</th>
<th>Title</th>
<th>Description</th>
<th>Material Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>FMCSA/ Baltimore County Police Department</td>
<td>Federal/State</td>
<td>Pull 'Em Over</td>
<td>The approximately 20-minute video discusses the importance of enforcing traffic stops with CMVs, as well as information to make stops safely. Tips could be applicable to responding to a CMV crash.</td>
<td>Video</td>
</tr>
<tr>
<td>FMCSA/ AAMVA</td>
<td>Federal</td>
<td>18 Wheels and BUSTed</td>
<td>The approximately 13-minute video discusses the importance of enforcing traffic stops with CMVs, as well as information to make stops safely. Tips could be applicable to responding to a CMV crash.</td>
<td>Video</td>
</tr>
</tbody>
</table>

**TTI Educational Materials**

The following section provides tip cards designed as another task for this projet, as well as educational materials that may be used to assist in training law enforcement officers. All educational materials can be found at [https://groups.tti.tamu.edu/cts/improving-the-collection-and-reporting-of-cmv-crash-data-in-cris/](https://groups.tti.tamu.edu/cts/improving-the-collection-and-reporting-of-cmv-crash-data-in-cris/).
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**TTI Tip Cards**
Identifying CMV Crashes and CMV Crash Criteria

### Identifying Commercial Motor Vehicles (CMVs) for Crash Reporting in Texas

<table>
<thead>
<tr>
<th>DOES THE VEHICLE WEIGH MORE THAN 10,000+ LBS?</th>
<th>IS THE VEHICLE TRANSPORTING HAZARDOUS MATERIALS REQUIRING PLACARDS?</th>
<th>DOES THE VEHICLE HAVE 9+ CAPACITY INCLUDING THE DRIVER?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>YES</strong></td>
<td><strong>YES</strong></td>
<td><strong>YES</strong></td>
</tr>
<tr>
<td>This is a CMV and crashes should be reported.</td>
<td>This is a CMV and crashes should be reported.</td>
<td>The vehicle is not a CMV based on passenger capacity.</td>
</tr>
<tr>
<td>The vehicle is not a CMV based on weight.</td>
<td>Check to see if it is based on hazardous materials or capacity.</td>
<td>Check to see if it is based on weight or capacity.</td>
</tr>
<tr>
<td>Check to see if it is based on hazardous materials or weight.</td>
<td>Check to see if it is based on hazardous materials.</td>
<td>Check to see if it is based on hazardous materials or weight.</td>
</tr>
</tbody>
</table>

### Understanding CMV Crash Criteria in Texas

<table>
<thead>
<tr>
<th>CMV CRITERIA</th>
<th>DEFINITION</th>
<th>WHERE TO FIND THIS INFORMATION?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>Vehicle with a GVWR, GCWR, or RGWV that is 10,000 +lbs is a CMV and a crash should be reported to the Texas Department of Transportation (TxDOT).</td>
<td>Information Plate on Door of Vehicle or on Trailer</td>
</tr>
<tr>
<td>Gross Vehicle Weight Rating (GVWR) or Gross Combination Weight Rating (GCWR)</td>
<td>Max weight provided by vehicle manufacturer. GVWR is separate for truck and trailer; whereas, GCWR is the combined weight for bzh.</td>
<td>Vehicle Registration Receipt (towards the middle)</td>
</tr>
<tr>
<td>Registered Gross Vehicle Weight (RGVW)</td>
<td>Weight may be the same as GVWR/GCWR, but may differ under circumstances (e.g., vehicle modifications). If weights differ, you should use the greater weight value.</td>
<td>Note: RGVW not available on vehicles with exempt license plates, older vehicles, or heavy equipment</td>
</tr>
<tr>
<td>Hazmat Transportation</td>
<td>Vehicle transporting hazardous materials identified by the Hazardous Materials Transportation Act.</td>
<td>You should see a hazmat placard on the vehicle.</td>
</tr>
<tr>
<td>9+ Passenger Capacity</td>
<td>Vehicle with a passenger seating capacity of nine or more including the driver and used for transportation of passengers.</td>
<td></td>
</tr>
</tbody>
</table>

*Note: The Federal Motor Carrier Safety Administration (FMCSA) includes the same requirements for crash reporting, but excludes noncommercial purposes (e.g., recreational use).*
Commercial Motor Vehicle (CMV) Crash Reporting Communications and Training Plan

Identifying Responsible Carriers and DOT and Other Important Numbers

Identifying the Responsible Carrier and DOT Number for CMV Crashes in Texas

START HERE

Ask driver if truck is leased.

NO

Check vehicle side for DOT number.

A

Are they carrying a load?

YES

NO

Check lease agreement for DOT number and Carrier info. *Do not get information from side of vehicle.

Check shipping papers for carrier info.

Check record of duty or electronic logging device (ELD) for carrier info.

Important: Information on the truck or vehicle registration may not be the responsible carrier.

FMCSA WEB SITE: http://safety.fhwa.dot.gov/CompanySnapshot.aspx verify motor carriers' information (e.g., DOT number, name, address, phone).

DOT and Other Numbers Quick Reference

<table>
<thead>
<tr>
<th></th>
<th>WEIGHT REQUIREMENT</th>
<th>HAZARDOUS MATERIALS</th>
<th>TRANSPORTATION OF PASSENGERS OR OTHERS</th>
<th>COMMERCE</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. DOT Number</td>
<td>Over 10,000 lbs</td>
<td>□</td>
<td>• 9–15 passengers with driver for compensation, or • More than 16 passengers</td>
<td>Interstate</td>
<td>8 characters with possible leading zeros to the US DOT Number</td>
</tr>
<tr>
<td>MC, FF, or MX Number (Needed in addition to a DOT Number; Formerly ICC Number)</td>
<td>X</td>
<td>X</td>
<td>• When transporting passengers in interstate commerce, or • When transporting federally-regulated commodities in interstate commerce</td>
<td>Interstate</td>
<td>6 to 8 characters with possible leading zeros</td>
</tr>
<tr>
<td>Texas DMV Number (Formerly TXDOT Number) *A U.S. DOT Number is required to obtain a TXDMV Number</td>
<td>□ Over 26,000 lbs, or □ Farm vehicle over 48,000 lbs</td>
<td>□</td>
<td>• Vehicle transports more than 15 passengers with driver, or • Commercial school bus, or • When transporting household goods for compensation</td>
<td>Intrastate</td>
<td>10 characters with possible leading zeros. The TXDMV last character may be the letter C or a number</td>
</tr>
</tbody>
</table>

Note: 1. A carrier may have other registration number requirements dependent on state. 2. Reporting priority for carrier IDs on crash forms is U.S. DOT/ICC/TXDMV number, TXDMV, and Other State Numbers.
**Other Educational Materials**

**Registration Receipt**

Figure 1 demonstrates an example registration receipt for a CMV. The red text highlights information requested on the Texas CR-3 crash form, including VIN, Vehicle Year, Body Style, Company Information, and Gross Weight.

![Registration Receipt Example]

**Vehicle Information Plate**

Figure 2 demonstrates an example vehicle information plate for a CMV. The red text highlights information requested on the Texas CR-3 crash form, including Gross Vehicle Weight Rating, VIN, and Vehicle Type.
Available Training Opportunities for Law Enforcement Officers
Available courses that covered reporting of CMV crashes were identified. The following three sections provide a summary of training opportunities available through 1) FMCSA, 2) State Agencies or Governments, and 3) Other Agencies (e.g., nonprofits, academic universities, private companies).

Figure 2. Example Vehicle Information Plate

<table>
<thead>
<tr>
<th>Manufacturer 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANUFACTURED BY 5 DE MEXICO S.A. TIJUANA B.C. MEXICO</td>
</tr>
<tr>
<td>IMPORTED BY 5, INC. CITY, TX USA</td>
</tr>
<tr>
<td>DATE OF MANUFACTURE: 04/06</td>
</tr>
<tr>
<td>GVWR: 12345 KG</td>
</tr>
<tr>
<td>12345 LB</td>
</tr>
<tr>
<td>GAWR ALL AXLES</td>
</tr>
<tr>
<td>5432 KG</td>
</tr>
<tr>
<td>12345 LB</td>
</tr>
<tr>
<td>8.76/ 23.4</td>
</tr>
<tr>
<td>THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLES</td>
</tr>
<tr>
<td>SAFETY STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE</td>
</tr>
</tbody>
</table>

V.I.N. – 3H3 A1B2C3D4E5F6G7
MODEL – ABC123456 – DEF TYPE – TRAILER – VAN
PARTS INFO 1-800-123-4567
**Commercial Motor Vehicle (CMV) Crash Reporting Communications and Training Plan**

**FMCSA Training Opportunities**
FMCSA has developed the Traffic and Bus Traffic Enforcement Training (TBTET) which largely focuses on providing officers with the knowledge and skills for stopping a truck or bus. These skills and knowledge can also be applied when responding to a CMV crash. However, it is important to note neither trainings are specific to crash reporting. TBTET includes promotional videos, FMCSA instructor-led officer training, and roll call curriculum. There are 8-short roll call curriculums available, as well as other materials online.

**State Training Opportunities**
Table 5 summarizes available trainings sponsored by state agencies (e.g., local law enforcement, department of transportations). The Virginia Department of Motor Vehicles (DMV) teaches a Commercial Vehicle Crash Investigation Course that covers the characteristics of CMVs and the dynamics at play when one is involved in a crash. The Minnesota State Patrol also has classes focused primarily on CMVs. This information also appears to be briefly addressed in trainings available through the North Carolina Justice Academy and the Tennessee Highway Safety Office.

**Table 5. State Agencies CMV Reporting Training Opportunities**

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Classification</th>
<th>Title</th>
<th>Cost</th>
<th>Description</th>
<th>Pre-requisite Course(s) Required</th>
<th>Online Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado State Patrol</td>
<td>Law Enforcement</td>
<td>Level III - Traffic Accident</td>
<td>N/A</td>
<td>Level III Accident Reconstruction and Level IV Computer Aided Accident Reconstruction are offered throughout the year. Advanced courses include information on CMVs.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reconструкция</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colorado State Patrol</td>
<td>Law Enforcement</td>
<td>Level IV – Computer Aided Traffic</td>
<td>N/A</td>
<td>Level III Accident Reconstruction and Level IV Computer Aided Accident Reconstruction are offered throughout the year. Advanced courses include information on CMVs.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Accident</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sponsor</td>
<td>Classification</td>
<td>Title</td>
<td>Cost</td>
<td>Description</td>
<td>Pre-requisite Course(s) Required</td>
<td>Online Course</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------</td>
<td>-----------------------------------------------------</td>
<td>------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Minnesota State Patrol</td>
<td>Law Enforcement</td>
<td>Reconstruc... Training and Outreach</td>
<td>N/A</td>
<td>Minnesota State Patrol offers classes and presentations focused on CMVs, including information on vehicles, hazardous materials, inspection procedures, and load securement.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>TXDOT/IAD LEST</td>
<td>State / Non-Profit</td>
<td>Truck and Bus Traffic Enforcement Training</td>
<td>FREE</td>
<td>The Truck and Bus Traffic Enforcement Training Program is presented at no cost to participants and re-emphasizes the need for all sworn officers to engage large trucks and buses safely and effectively to reduce the rate of crash injuries and fatalities.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Virginia DMV</td>
<td>State</td>
<td>Commercial Vehicle Crash Investigation</td>
<td>FREE</td>
<td>This intensive course covers the unique characteristics of CMVs and the dynamics at play when one is involved in a crash. Detailed information about the nomenclature and operation of CMVs equips students with an adequate understanding of the mechanical components of CMVs and how they factor into the investigation. Hands-on exercises and vehicle testing is utilized to reinforce the concepts presented during the course.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>North Carolina</td>
<td>State</td>
<td>Traffic Crash Reconstruction 2.0</td>
<td>N/A</td>
<td>This course teaches participants to reconstruct traffic crashes using previously gained knowledge in combination with materials</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
### Sponsorship and Classification

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Classification</th>
<th>Title</th>
<th>Cost</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Justice Academy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tennessee Highway Safety Office</td>
<td>State</td>
<td>Traffic Crash Reconstruction Course</td>
<td>N/A</td>
<td>This course discusses the effect of weight shift in braking involving large trucks and buses, including truck-tractor and semi-trailer combinations.</td>
</tr>
</tbody>
</table>

**Other Training Opportunities**

Table 6 summarizes available trainings sponsored by private agencies, non-profit organizations, and universities. These trainings largely address CMV crash investigation and CMV crash reconstruction. These trainings appear to be the most relevant to improving knowledge and skills associated with CMV crash reporting.

**Table 6. Other CMV Reporting Training Opportunities**

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Classification</th>
<th>Title</th>
<th>Cost</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accident Investigation and Reconstruction Specialists, Inc.</td>
<td>Private</td>
<td>Investigating Commercial Motor Vehicle Crashes</td>
<td>$925 plus travel</td>
<td>The course is designed for police officers, investigators and engineers who will be investigating collisions involving semi-tractor/trailers, recreational vehicles, trucks and trailer combinations and other heavy equipment. It covers CMV types, part nomenclature of large trucks and air brakes,</td>
</tr>
<tr>
<td>Sponsor</td>
<td>Classification</td>
<td>Title</td>
<td>Cost</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>----------------</td>
<td>-------</td>
<td>------</td>
<td>-------------</td>
</tr>
<tr>
<td>Accident Investigation and Reconstruction Specialists, Inc.</td>
<td>Private</td>
<td><a href="#">Traffic Collision Reconstruction - Level III</a></td>
<td>$1,080 plus travel</td>
<td>brake systems, federal motor carrier regulations, brake force calculations for air brake systems, center of mass of articulated vehicles with loads, coupling devices, an introduction to engine control modules and other electronic data contained in CMVs, and collision dynamics.</td>
</tr>
</tbody>
</table>

The course is another level of instruction for police officers, investigators and engineers who will be investigating automobile collisions. It covers energy, time and distance analysis, formula derivations, and advanced airborne equations in depth as each attendee works on several traffic collision reconstructions. Attendees will apply the information learned from the At Scene Collision Investigation (Level I) and Advanced Technical Collision Investigation (Level II) and learn to reconstruct vehicle collisions to provide answers as to what happened during a collision. Attendees will also be introduced to CMV and heavy truck collision reconstruction as well as event data recorder reports and their use in reconstructions.
## Commercial Motor Vehicle (CMV) Crash Reporting Communications and Training Plan

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Classification</th>
<th>Title</th>
<th>Cost</th>
<th>Description</th>
<th>Pre-requisite Course(s) Required</th>
<th>Online Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institute of Police Technology and Management - University of North Florida</td>
<td>Non-Profit / University</td>
<td><strong>Commercial Vehicle Crash Investigation - Level I</strong></td>
<td>$795 plus travel</td>
<td>This intensive course covers the unique characteristics of CMVs and the special dynamics at play when one is involved in a collision. Detailed information of the nomenclature and operation of CMVs will provide a level of competence needed to have an adequate understanding of mechanical components, parts and pieces of the CMV and how they may factor into the investigation. To reinforce the concepts presented, “hands-on” exercises and vehicle testing will be conducted in the course.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Institute of Police Technology and Management - University of North Florida</td>
<td>Non-Profit / University</td>
<td><strong>Commercial Vehicle Crash Investigation - Level II</strong></td>
<td>$825 plus travel</td>
<td>Designed to further enhance the knowledge and skills acquired in IPTM’s Commercial Vehicle Crash Investigation–Level I course, this class focuses on a detailed analysis of CMV systems and dynamics, and the application of findings to crash reconstruction.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Institute of Police Technology and University</td>
<td>Non-Profit / University</td>
<td><strong>Event Data Recorder Use in Traffic Crash</strong></td>
<td>$795 plus travel</td>
<td>This course teaches how to analyze any event data recorder (EDR) data, regardless of the manufacturer. It also teaches how to analyze the EDR data which has been collected with</td>
<td>Yes</td>
<td>No</td>
</tr>
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<td>Sponsor</td>
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<td>Title</td>
<td>Cost</td>
<td>Description</td>
<td>Pre-requisite Course(s) Required</td>
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<tr>
<td>Management - University of North Florida</td>
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<td>Reconstruction - Level I</td>
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<td>any imaging tools, including propriety manufacturer tools, as well as from future vehicles not yet released. The course demonstrates analytical tools techniques for heavy truck data.</td>
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</tr>
<tr>
<td>Institute of Police Technology and Management - University of North Florida</td>
<td>Non-Profit / University</td>
<td>Tire Forensics and Crash Reconstruction</td>
<td>$195 plus travel</td>
<td>This course provides the technical information needed to recognize and identify common evidence and causes of tire failure for different vehicle types, including CMVs.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Institute of Police Technology and Management - University of North Florida</td>
<td>Non-Profit / University</td>
<td>Heavy Vehicle Electronic Control Module Data Use in Crash Reconstruction</td>
<td>$1,195 plus travel</td>
<td>This course assists with the forensic collection and analysis of event data that is available in Heavy Vehicle Electronic Control Modules (HVECM), also referred to as Heavy Vehicle Event Data Recorders (HVEDR).</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td>Sponsor</td>
<td>Classification</td>
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<td>Cost</td>
<td>Description</td>
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<tr>
<td>Northwest University</td>
<td>University</td>
<td>Various</td>
<td>$1,000 plus travel</td>
<td>This course offers an advanced crash reconstruction course on heavy vehicles.</td>
<td>Some courses have pre-requisites</td>
<td>Some courses are available online</td>
</tr>
<tr>
<td>SRR Training</td>
<td>Private</td>
<td>Introduction to Commercial Motor Vehicle Crash Inspection, Investigation and Reconstruction</td>
<td>$550 plus travel</td>
<td>This comprehensive 4-day course, consists of extensive classroom and “hands-on” training in the area of CMV crash inspections, investigations and crash reconstructions so that following the class, police investigators can focus on crash causation.</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>SAE International</td>
<td>Private</td>
<td>Accident Reconstruction Certificate Program</td>
<td>N/A</td>
<td>This six-course certificate program focuses on the fundamental technical knowledge and skills required for practitioners of vehicular accident reconstruction. The primary objective of this certificate program is for the attendees to become more proficient at the practice of vehicle crash/accident reconstruction. This is accomplished through an understanding of the fundamentals of crash mechanics, vehicle dynamics and kinematics, and how vehicle</td>
<td>The certificate program coursework is offered as a package</td>
<td>No</td>
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<td>Sponsor</td>
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<tr>
<td>Northcoast Polytechnic Institute</td>
<td>Private</td>
<td>Commercial Vehicle Accident Investigation, Enforcement and Airbags / Black Box Technology</td>
<td>N/A</td>
<td>This course familiarizes officers with basic CMV accident investigation principles. In addition, the course provides training in the federal and state regulations concerning CMV log books and CMV equipment. Basic mechanical systems of CMVs is also explained. In addition, the height, weight and length laws within the ORC is discussed. Finally, training is provided in airbags and black box technology issues to aid the officer in the investigative process.</td>
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<tr>
<td>Northcoast Polytechnic Institute</td>
<td>Private</td>
<td>Commercial Accident Reconstruction</td>
<td>N/A</td>
<td>This 3-day seminar is designed for experienced law enforcement officers who has had previous training in basic and technical (advanced) accident investigation. The officer does not have to be an accident reconstructionist to attend. The seminar Yes, expected to have taken a basic and advanced accident</td>
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<tr>
<td>Sponsor</td>
<td>Classification</td>
<td>Title</td>
<td>Cost</td>
<td>Description</td>
<td>Pre-requisite Course(s) Required</td>
<td>Online Course</td>
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<tr>
<td>Advantage Fleet Services</td>
<td>Private</td>
<td>Commercial Vehicle Incident Investigation Course (CVIIC)</td>
<td>N/A</td>
<td>Provides guidance and direction to officers on how to investigate and reconstruct a CMV accident. Topics to be discussed includes federal motor carrier regulations, CDL licensing, log books and log book violations, CMV air brakes, stroke measurement of air brakes, obtaining data to perform brake efficiency calculations, rollover accidents, minimum speeds from skid marks and evidence, trailer under-ride accidents, securing loads and cargo, trailer swing out and jack-knife accidents, mirror adjustments and blind spots and off-tracking of CMV trailers.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Infrastructure Health and Safety Association</td>
<td>Private</td>
<td>Commercial Motor Vehicle Collision Investigation</td>
<td>$338 (inside facility)</td>
<td>This intensive certificate course enables participants to better determine collision preventability, identify training needs, make logical recommendations for changes to ensure a safer vehicle operation, and build a database to understand how, where, and why.</td>
<td>No</td>
<td>No</td>
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<tr>
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<td>$2,420 (out-)</td>
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<tr>
<td>Sponsor</td>
<td>Classification</td>
<td>Title</td>
<td>Cost</td>
<td>Description</td>
<td>Pre-requisite Course(s) Required</td>
<td>Online Course</td>
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<tr>
<td>Missouri Safety Center</td>
<td>Non-Profit</td>
<td>Basic Heavy Truck Reconstruction</td>
<td>$475 plus travel</td>
<td>This 40-hour course is designed to teach the unique skills required to gather, document, and preserve evidence needed for the reconstruction of heavy truck crashes. The course covers the following subjects: brake force calculations, acceleration and deceleration testing, pre-trip inspection familiarization, log book familiarization, push rod travel and measurements, as well as specific math formulas for heavy truck investigation. This course is math intensive course, and incorporate practical field demonstrations and data gathering exercises.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Missouri Safety Center</td>
<td>Non-Profit</td>
<td>Event Data Recorder Use in Traffic Crash Reconstruction</td>
<td>$695 plus travel</td>
<td>This comprehensive course teaches how to operate the Bosch Crash Data Retrieval (CDR) system hardware and software to image crash data from supported car and light truck event data recorders (EDR’s), as well as analyze the downloaded data and apply it to crash reconstructions.</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
Texas Commission on Law Enforcement Opportunities and Credit
The Texas Commission on Law Enforcement (TCOLE) establishes and ensures standards for law enforcement, corrections, and telecommunications employees. In addition, TCOLE facilitates trainings to ensure the standards are followed.\(^1\)

TCOLE offers trainings through approximately 2,250 courses which can be found on their website.\(^1\) Table 7 presents CMV courses available through TCOLE.

In addition, outside training can be completed with documentation that the course meets TCOLE requirements. These requirements include a roster, learning objectives, instructor bio-sketch, assessment instruments, and course evaluation. These courses should be advertised as eligible for TCOLE credit hours.

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Minimum Hours</th>
<th>Maximum Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>3401</td>
<td>Commercial Driver’s License Law Course</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>5487</td>
<td>Commercial Motor Vehicle Interdiction</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>786006</td>
<td>DPS - Commercial Vehicle Enforcement</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>786011</td>
<td>DPS - Basic Commercial Vehicle Enforcement</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>786021</td>
<td>DPS - Commercial Vehicle Safety Alliance</td>
<td>8</td>
<td>100</td>
</tr>
</tbody>
</table>

Self-Assessment Quiz
The following short assessment can be distributed to officers to determine if they are familiar with the information needed for accurate CMV crash reporting. A printable copy of the assessment and an answer key can be found in the Appendix.

**CMV Crash Reporting Self-Assessment**
1. Which of the following indicates that a vehicle involved in a crash is a CMV in Texas according to federal and state crash reporting guidelines?
   a) GVWR More than 10,000lbs
   b) Transporting 9 or More People Including the Driver
   c) Hazardous Materials Placard Required
   d) All of the Above

\(^1\) [https://www.tcole.texas.gov](https://www.tcole.texas.gov)
2. Which of the following weight is a combined vehicle weight?
   a) GVWR
   b) GCWR
   c) RGVW
   d) All of the Above

3. Which number is required in Texas for a truck weighing 26,001 pounds or greater conducting intrastate commerce?
   a) US DOT Number
   b) MC, FF, or MX Number
   c) TxDMV Number
   d) Both A and C

4. Where would you find the GVWR on a CMV?
   a. Side of Vehicle
   b. Lease Agreement
   c. Information Plate
   d. All of the Above

5. Where would you find the US DOT Number on a CMV?
   a. Side of Vehicle
   b. Lease Agreement
   c. Both A and B
   d. None of the Above

6. Where would you find the RGVW on a CMV?
   a. Registration Receipt
   b. Side of Vehicle
   c. Lease Agreement
   d. All of the Above

7. Where would you find the responsible carrier for a CMV?
   a. Lease Agreement
   b. Shipping Papers
   c. Log
   d. All of the Above

8. If a yellow school bus is involved, the crash should be reported as CMV-related.
   a) True
   b) False

9. A Texas truck weighing 26,001 pounds or greater conducting intrastate commerce is required to obtain a US DOT Number.
   a) True
   b) False
10. If a vehicle has both a US DOT Number and TxDMV Number, I should report the US DOT Number on the CR-3 form?
   a) True
   b) False

11. A CMV that operates in Louisiana and Texas is conducting intrastate commerce.
   a) True
   b) False

12. A CMV that only drives products in Austin that were produced locally is conducting interstate commerce.
   a) True
   b) False

13. Passenger capacity for a yellow school bus is determined by allowing one passenger for every 13 inches of seat space.
   a) True
   b) False

14. If an individual rents a U-Haul to move furniture for a day, the registered carrier for the vehicle is the individual.
   a) True
   b) False

15. If Company X leases a truck from Penske and one of their employees crashes the vehicle, the reported carrier should be Company X.
   a) True
   b) False

**Scoring the Self-Assessment**
The following recommendations are being made based on performance on the self-assessment.

- **11-15 Correct Answers:** You are very familiar with the requirements of CMV crash reporting and may not need training unless you want additional information (e.g., [CR-100 Crash Instruction Manual](#))!

- **8-10 Correct Answers:** You are semi-familiar with the requirements of CMV crash reporting, but we recommend a refresher of available materials on CMV Crash Reporting in Texas (e.g., [CR-100 Crash Instruction Manual](#)). You may also want to look at training if you want additional information!

- **7 or Less Correct Answers:** You should review available materials on CMV Crash Reporting in Texas (e.g., [CR-100 Crash Instruction Manual](#)) and we recommend you attend a training.
Performance Reporting
To understand the effectiveness of implementing the communication and training plan at your agency, it is recommended that a performance report be produced that measures and analyzes changes before and after implementation. The following are suggestions for methods to determine if changes have occurred:

- Time and cost-effective email survey using free surveying website (e.g., SurveyMonkey)
- Pre- and post-assessments to determine if knowledge changes have occurred
  - This can be done using the included self-assessment
- Track CMV reporting to determine if data are more accurate
- If you have a Commercial Vehicle Enforcement (CVE) Unit who may yield questions they may be able to provide verbal feedback on the implementation (e.g., qualitative data)

The next section describes potential performance indicators that could be used to assess for changes before and after implementation of the communication and training plan:

- Number of correct CMV–related CR-3 forms
- Number of inquiries to the CVE Unit
- Increase knowledge on CMV crash reporting requirements

Conclusion
This report presents a plan for communicating the importance of accurate CMV crash reporting and provides information on available trainings. During the process of developing the plan, it became apparent that CMV specific training opportunities for law enforcement officers are limited. This finding was supported by prior project work that involved conducting focus groups with law enforcement officers and data stakeholders. This project addresses educational needs through the development of this communication and training plan, as well as through the development of tip cards for law enforcement officers. However, future efforts could further address the limited availability of CMV specific training opportunities, such as through the development of CMV curriculum for multi-day trainings or short (3 to 5 minute) role call videos.
Appendix

Self-Assessment Answer Key & Printable Assessment

The following section provides the answers to the self-assessment. In addition, the printable self-assessment can be found on pages 27-28 and can be printed directly from this document.

1. Which of the following indicates that a vehicle involved in a crash is a CMV in Texas according to Federal and state crash reporting guidelines?
   a) GVWR More than 10,000lbs
   b) Transporting 9 or More People Including the Driver
   c) Hazardous Materials Placard Required
   d) All of the Above

2. Which of the following weight is a combined vehicle weight?
   a) GVWR
   b) GCWR
   c) RGVW
   d) All of the Above

3. Which number is required in Texas for a truck weighing 26,001 pounds or greater conducting intrastate commerce?
   a) US DOT Number
   b) MC, FF, or MX Number
   c) TxDMV Number
   d) Both A and C

4. Where would you find the GVWR on a CMV?
   a) Side of Vehicle
   b) Lease Agreement
   c) Information Plate
   d) All of the Above

5. Where would you find the US DOT Number on a CMV?
   a) Side of Vehicle
   b) Lease Agreement
   c) Both A and B
   d) None of the Above

6. Where would you find the RGVW on a CMV?
   a) Registration Receipt
   b) Side of Vehicle
   c) Lease Agreement
   d) All of the Above

7. Where would you find the responsible carrier for a CMV?
   a) Lease Agreement
   b) Shipping Papers
   c) Log
8. If a yellow school bus is involved, the crash should be reported as CMV-related.
   a) True
   b) False

9. A Texas truck weighing 26,001 pounds or greater conducting intrastate commerce is required to obtain a US DOT Number.
   a) True
   b) False

10. If a vehicle has both a US DOT Number and TxDMV Number, I should report the US DOT Number on the CR-3 form?
    a) True
    b) False

11. A CMV that operates in Louisiana and Texas is conducting intrastate commerce.
    a) True
    b) False

12. A CMV that only drives products in Austin that were produced locally is conducting interstate commerce.
    a) True
    b) False

13. Passenger capacity for a yellow school bus is determined by allowing one passenger for every 13 inches of seat space.
    a) True
    b) False

14. If an individual rents a U-Haul to move furniture for a day the registered carrier for the vehicle is the individual.
    a) True
    b) False

15. If Company X leases a truck from Penske and one of their employees crashes the vehicle, the reported carrier should be Company X.
    a) True
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CMV Crash Reporting Self-Assessment

1. Which of the following indicates that a vehicle involved in a crash is a CMV in Texas according to Federal and state crash reporting guidelines?
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2. Which of the following weight is a combined vehicle weight?
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   b) GCWR
   c) RGVW
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3. Which number is required in Texas for a truck weighing 26,001 pounds or greater lbs. conducting intrastate commerce?
   a) US DOT Number
   b) MC, FF, or MX Number
   c) TxDMV Number
   d) Both A and C

4. Where would you find the GVWR on a CMV?
   a) Side of Vehicle
   b) Lease Agreement
   c) Information Plate
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   b) Lease Agreement
   c) Both A and B
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    b) False