Prepared by the University of Connecticut CTSRC For Use by Connecticut Law Enforcement

Training Police Officers in Investigating Large Vehicle Crashes CT's effort to improve CT's FMCSA's Safety Rating







2016

CT changed the method of collection from a 20 year old crash report to a fully electronic system.

MMUCC 4 Compliant System implemented on January 1, 2015

- New Form introduced with appendices to cover various aspects of crashes
 Introduced with appendices to cover various
 - 1. Heavy Vehicles/Commercial
 - 2. Bicyclist
 - 3. Passengers
 - 4. Witness
 - 5. Bus Passenger
 - 6. Non-Motorist

| Motor Vehicle | - | Iop Validation | | | | | | XML T | ? |
|---|--------------------------------------|--|--|---|------------------|--|------------------------|----------------------------------|-----------------|
| Page 1 of 12 | | CONNECTICUT | | POLICE CRA | SH REPORT | | | | |
| Number of M Automobiles, Moto | | s: 1 Fo | | Case Number: | | | | | |
| Number of N | on-Motorists | · 1 · · · | rash Sum | mary (Front) | | DOTIde | | | |
| Pedestrians, Bioyo | Ests, etc. | | | | | For DOT | use only | | |
| | | CRASH DATE, | | VERITY, AND | LOCATIO | | | | |
| Date of Crash (YYYYMMDD) | | (0000-2359) Town N | ime | | | Town # | _ | ash Severity | |
| 2 0 1 4 0 7 | 1 4 | | | | * | | | ∫Fatal ()Injur | y ⊖PDO |
| Latitude | Crash occu | rred on (street name or route #) | at its intersec | tion with (street nan | ne or route #) | | | | |
| | | | | at | | | | | |
| Longitude | If not at an i | intersection: distance | Feet | N, S, E, W n | ame of nearest i | ntersecting | road, town | line, or mile mark | er |
| | | | Tenths of Mile | of | | - | | | |
| | | | | | | | | | |
| For all numeric fields: 99 = 'Unkno | wn' | | | AND CONDI | | | | | |
| TRAFFICWAY OWNERSHIP 01. Public Road | | LOCATION OF FIRST HARME 01. On Roadway | ULEVENT | FIRST HARMFUL | EVENT | | MANNER O | IF IMPACT multi-vehicle crash | |
| 02. Private Road | - | 02. Shoulder | - | Non-Collision: | | - | | | |
| 88. Not Applicable | | 03. Median | | 01. Overturn/Rollow | | | 01. Front to | | |
| TRAFFICWAY CLASS | | 04. Roadside | | 02. Fire / Explosion 03. Immersion, Full | or Partial | 02. Front to | Front | | |
| 01. Trafficway, On Road | | 05. Gore 05. Separator | 04. Jackknife | | | 03. Angle 04. Sideswipe, Same Direction | | | |
| 02. Trafficway, Not on Road | - | 07. In Parking Lane or Zone | 05. Cargo/Equipment Loss or Shift | | | 05. Sideswipe, Opposite Direction | | | |
| 03. Non-Trafficway | | 08. Off-Roadway Location Unkr | 05. Fell/Jumped from Vehicle 07. Thrown or Falling Object | | | 06. Rear to Side | | | |
| 04. Parking Lot | | 09. Outside Right-of-Way (traffic | 07. Thrown or Falling Object 08. Other Non-Collision | | | 07. Rear to Rear 88. Not Applicable | | | |
| LIGHT CONDITIONS | | 97. Other | | | | | 97 Other | licable | |
| 01. Daylight | | CRASH-SPECIFIC LOCATION | | Collision with Per or Non-Fixed Obje | son, Vehicle, | | er. ouini | | |
| 02. Dawn | - | 01. Non-Junction | | 09. Pedestrian | | | | TING CIRCUMST. | |
| 03. Dusk 04. Dark- Lighted | | 02. Intersection 03. Intersection-Related | 10. Pedal cycle/Pedal-cyclist | | | ENVIRONMENTAL (choose up to 3) | | | |
| 05. Dark- Not Lighted | | 03. Intersection-Related 04. Entrance / Exit Ramp | 11. Other Non-motorist | | | 00. None 01. Weather Conditions | | | |
| 06. Dark Unknown Lighting | | 05. Entrance / Exit Ramp-Relate | 12. Railway Vehicle (train, engine) 40. Deer | | | 01. Weather Conditions 02. Visual Obstruction(s) | | | |
| 97. Other | | 06. Railway Grade Crossing | 13, Animal Other TI | han Deer (live) | | 03. Glare | | | |
| | | 07. Crossover-Related | 14. Motor Vehicle in | | | 04. Animal(s) in Roadway | | | |
| | | 08. Driveway Access 09. Driveway Access-Related | | 15. Parked Motor V 16. Struck by Fallin | | ~ | 88. Not Appl | licable | |
| WEATHER CONDITIONS (cho 01, Clear | ose up to 2) | 10. Shared-Use Path or Trail | | Anything Set in | Motion by Motor | Vehicle | 97. Other | | |
| 01. Clear 02. Cloudy | | 11. Through Roadway | 17. Work Zone/Mail | intenance Equipm | nent | CONTRIBUTING CIRCUMSTANCES, | | | |
| 03. Fog. Smog. Smoke | | 12. Acceleration / Deceleration | 18. Other Non-Fixed Object | | | ROAD (choose up to 3) | | | |
| 04. Rain | | 13. On A Bridge 14. HOV Lane | Collision With Fixed Object: | | | 00. None 01. Backup Due to Prior Crash | | | |
| 05. Sleet or Hail | | 14. HOV Lane 15. Service or Rest Area | 19. Impact Attenuat | ton/Crash Cushior | n | 02. Backup Due to Prior | | | |
| 06. Freezing Rain/Drizzle 07. Snow | | 16. Weigh Station | | 20. Bridge Overhea 21. Bridge Dist of S | ed Structure | | Non-recurring Incident | | |
| 08. Blowing Snow | | 17. Other Location Not Listed A | 21. Bridge Pier or Support 22. Bridge Rail | | | 03. Backup Due to Regular Congestion | | | |
| 09. Severe Crosswinds | | Within an Interchange Area | 23. Cable Barrier | | | 04. Toll Booth/Plaza Related | | | |
| 10. Blowing Sand, Soil, Dirt | | (median, shoulder and roadside 97. Other | 24. Culvert 25. Curb | | | 05. Road Surface Condition | | | |
| 88. Not Applicable 97. Other | | | 26. Ditch | | | (wet, icy; snow; slush, etc.) | | | |
| | | TYPE OF INTERSECTION | 27. Embankment | | | 05. Debris 07. Ruts, Holes, Bumps | | | |
| TRAFFICWAY SURFACE CON | NDITIONS | 01. Not an Intersection | 28. Guardrail Face 29. Guardrail End | | | 08. Work Zone | | | |
| 01. Dry 02. Wet | | 02. Four-Way Intersection | - | 30. Concrete Traffic | Barrier | | (construct | fon/maintenance/uf | |
| 02. wet 03. Snow | | 03. T-Intersection | | 31. Other Traffic Ba | arrier | | 09. Worn, Tr | ravel-Polished Sur | face |
| 04. Slush | | 04. Y-Intersection 05. L-Intersection | | 32. Tree (standing) | 1 C | | | tion in Roadway | and a Maria |
| 05. Ice/Frost | | 06. Traffic Circle | 33. Utility Pole/Light Support 34. Traffic Sign Support | | | 11. Traffic Control Device Inoperative, Missing or Obscured | | | |
| 06. Moving Water 07. Sand | | 07. Roundabout | 35. Traffic Signal Support | | | 12. Shoulder (none, low, soft, high) | | | |
| 07. Sand 08. Mud. Dirt, Gravel | | 08. Five-Point, or More | 36. Fence 37. Mailbox | | | 13. Non-Highway Work | | | |
| 09. Oil | | SCHOOL BUS RELATED | 37. Mailbox 38. Other Post, Pole or Support | | | 88. Not Applicable 97. Other | | | |
| 10. Standing Water | | 01. No | 39. Other Fixed Object (wall building, tunnel, etc.) | | | er. other | | | |
| 97. Other | | 02. Yes, a school bus was directly involved | | | | | | | |
| | | 03. Yes, a school bus was indire | ectly involved | | | | | | |
| For all numeric fields: 99 = 'Unkno | an' | | | | | | Complete | I for grashes occurrin | a ia a Work Zoo |
| WORK ZONE | LOCATION | | TYPE | | | RKERS PRI | ESENT | ENFORCEMEN | NT PRESENT |
| 01. No | 01. Before the | First Work Zone Warning Sign | ure | 01. N | ło | | 01. No | | |
| 02. Yes | 02. Advance W | | / Crossover | Crossover 02. Yes | | | 02. Yes | | |
| | 03. Transition A 04. Activity Are | | houlder or Median at or Moving Work | oulder or Median 88. No | | | 88. Not Applica | | |
| • | 05. Termination | | able | * | | | - | | |
| | 88. Not Applica | | | | | | | | |
| | | | | | | | | | |

- Deficiency in Officer Training related to CV Crash Investigation
- Integrated limited CV training into MMUCC training
- CTDOT applied for a SADIP grant to improve Officer training related to Commercial/Heavy Vehicles

- Results of the new MMUCC Form
 - All aspects of crash reporting improved
 - Low error/warning rate
 - More crashes reported
 - CT DOT backlog reduced dramatically
 - Reports are more consistent
 - Information captured is more robust than previous versions

- Limitations of Basic MMUCC Course:
 - UCONN staff began to see the need for expanded training
 - UCONN/CT DOT was awarded the SADIP Grant from FMCSA
 - Staff met with Representatives of FMCSA to gain perspective of what CT was lacking

- While other aspects of Crash reporting were improving, CT's safety rating with FMCSA was declining dramatically
- CT was listed as "POOR" and was designated a "RED" state in FMCSA's rating system.

| Current | History | Downloa | d PDF | | | | | | | | | | |
|---|--|--------------|----------------------------------|---------------------------------|-----------------------------|---------------------|-------------------|--------------------------------------|-------------------------------|--------------------------|------------------------|----------------------|--|
| Current Results | | | Connecticut: SSDQ Overall Rating | | | | | | | | | | |
| | Historical Results All SSDQ Results | | Crash | | | | | Overriding Indicator | | | | | |
| Monthly Results/ MCMIS Run Date | Event Da | te Range | Overall State Rating | Crash Record Completeness | Fatal Crash Completeness | Crash Timeliness | Crash Accuracy | Inspection Record Completeness | Inspection VIN Accuracy | Inspection Timeliness | Inspection Accuracy | Crash Consistency | |
| → Jul '16 07/22/2016 | 05/01/2015 - | - 04/30/2016 | • | • | • | • | • | • | • | • | • | No Flag | |
| Jun '16 06/24/2016 | 04/01/2015 - | - 03/31/2016 | • | • | • | • | • | • | • | • | • | No Flag | |
| May '16 05/27/2016 | 03/01/2015 - | - 02/29/2016 | • | • | • | • | • | • | • | • | • | No Flag | |
| Apr '16 04/29/2016 | 02/01/2015 - | - 01/31/2016 | • | • | • | • | • | • | • | • | • | No Flag | |
| Mar '16 03/25/2016 | 01/01/2015 - | - 12/31/2015 | • | • | • | • | • | • | • | • | • | No Flag | |
| Feb '16 02/28/2016 | 12/01/2014 - | - 11/30/2015 | • | • | • | • | • | • | • | • | • | No Flag | |
| Jan '16 01/29/2016 | 11/01/2014 - | - 10/31/2015 | • | • | • | • | • | • | • | • | • | No Flag | |
| Dec '15 12/28/2015 | 10/01/2014 - | - 09/30/2015 | • | • | • | • | • | • | • | • | • | No Flag | |
| Nov '15 11/27/2015 | 09/01/2014 - | - 08/31/2015 | • | • | • | • | • | • | • | • | • | No Flag | |
| Oct '15 10/23/2015 | 08/01/2014 - | 07/31/2015 | • | • | • | • | • | • | • | • | • | No Flag | |
| Sep '15 09/25/2015 | 07/01/2014 - | - 06/30/2015 | • | • | • | • | • | • | • | • | • | No Flag | |
| Aug '15 08/28/2015 | 06/01/2014 - | - 05/31/2015 | • | • | • | • | • | • | • | • | • | No Flag | |
| Jul '15 07/24/2015 | 05/01/2014 | - 04/30/2015 | • | • | • | • | • | • | • | • | • | No Flag | |
| Good Minimum of 1 Good Crash Measure, 1 Good Inspection Measure, AND 0 Poor Measure, AND 0 Poor | | | | | | | | Poor Poor OR Red Flagged | | | | | |
| Data Source: FARS records and MCMIS crash and inspection records. | | | | | | | | | | | | | |

Data Quality Improvement Resources

> DataQs

> Technical Assistance

Connect with a **Data Quality Specialist** for insight on training and tools to understand and improve data quality.

Use **DataQs** to request and track a review of Federal and State data issued by FMCSA that you believe may be incomplete or incorrect.

- UCONN Staff researched the reports and determined:
 - Officers had never received any specialized training for CMV's
 - The previous report had a small "grey" section devoted to CMV's
 - Officers needed more information to properly document vehicles involved in crashes

- Started a dialogue with the CT DMV Commercial Vehicle Safety Division
 - 1. The division is responsible for performing the MICSAP Upload to FMCSA
 - 2. They monitor trends in reporting
 - 3. They were having issues filtering through the reports from the new MMUCC PR-1 forms
- Streamlined the upload process from CT DOT to CT DMV
- Utilizing National Institute for Safety Research (NISR) improved the exchange between CT DOT and CT DMV

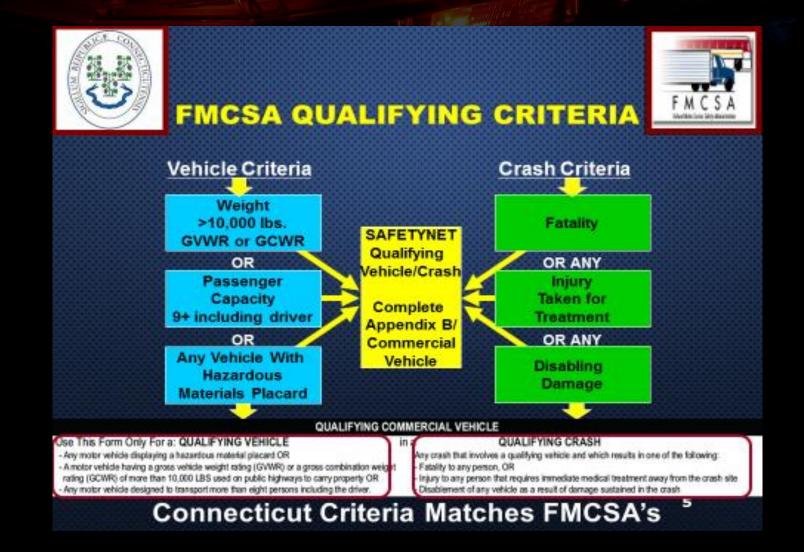
SADIP Project Overview:

- Targeted information that was incomplete from the CT Police reports
- Defined areas of concern that were lacking in the reports related to CMV
- Developed Training curriculum that was "Everyday Police Friendly" with NISR's assistance
- Presented and refined training presentation
- Review with Police training cadre with experience in crash training and with CMV background

- Training Class consisted of two parts:
 - Three one hour block of training
 - **1.** Properly identify Commercial Vehicle status
 - 2. Properly identify Motor Carrier Identification
 - 3. Properly identify Hazardous Materials

One hour of "hands on" with large vehicle and driver

- **1.** Collect Documents from driver/vehicle
- 2. Locate common areas where documents, VIN, and other safety paperwork may be placed.
- 3. Opportunity to meet a driver and ask questions under ideal conditions



Visor Cards Distributed to Officers

FMCSA OFFICER TICKET BOOK/VISOR CARD

Truck and Bus Crashes Reportable to FMCSA

REPORT A TRAFFIC CRASH IF IT INVOLVES...

... AND RESULTS IN

Any truck that has a gross vehicle weight rating (GVWR) of more than 10,000 pounds or a gross combination weight rating (GCWR) of more than 10,000 pounds used on public highways

OR driver's seat

OR

Any motor vehicle displaying a hazardous materials placard (regardless of weight)

A fatality: any person(s) killed in or outside of any vehicle (truck, bus, car, etc.) involved in the crash or who dies within 30 days of the crash as a result of an injury sustained in the crash An injury: any person(s) injured as a result of the crash

who immediately receives medical treatment away from the crash scene OR

A tow-away: any motor vehicle (truck, bus, car, etc.) disabled as a result of the crash and transported away from the scene by a tow truck or other vehicle

U.S. Department of Transportation www.fmcsa.dot.gov

Federal Motor Carrier Safety Administration





- I-

ANY VEHICLE DISPLAYING A HAZARDOUS MATERIAL PLACARD

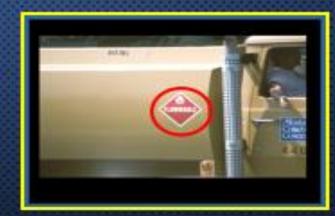
Use This Form Only For a: QUALIFYING VEHICLE

Any motor vehicle displaying a hazardous material placard OR

 A motor vehicle having a gross vehicle weight rating (GVWR) or a gross combination weight rating (GCWR) of more than 10,000 LBS used on public highways to carry property OR
Any motor vehicle designed to transport more than eight persons including the driver.

Any motor vehicle displaying a hazardous materials placard (regardless of weight)

Fuel or oil carried by the vehicle for its own use is NOT considered cargo and is not to be reported as HM Cargo or Spill







Officers Interacted with a Heavy Vehicle/Driver



Question and Answer with Instructor and CT DMV Commercial Vehicle Inspector

Document locations noted/ Other points of Interest on Vehicle

- Special Thanks!
 - CT DMV Commercial Safety Division was extremely helpful in assisting with the training
 - LT. Donald Bridge assigned an Inspector to attend every session
 - Made arrangements for a Commercial Truck and a Driver to be present for the hands on portion of the class



UConn Crash Data Liaison Contact Information



Officer (Ret.) Kevin Slater University of Connecticut Crash Data Liaison <u>Kevin.Slater@uconn.edu</u> (860) 930-2967