



WELCOME TO THE MONTHLY “TRUCK STOP” WEBINAR

**Truck Stops are presented the
second Thursday of each month at 2:00pm ET**

These webinars are open to members of the MCIEF



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<https://mcief.org/>

Or email
TRS@MCIEF.org



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in the “chat” window.**

**They will be answered as time allows
or responded to after the webinar via email.**

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as soon as possible.**



Procedures and Practices that May Adversely Impact Accurate Investigations After an Event

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Q: Isn't safety the most important thing to your company when you are putting your trucks out on the public roadways?

Q: Doesn't the police report say that you saw the brake lights of the car come on 30 seconds before you ran into the back of it? Yet you didn't hit your brakes until 3 seconds before the collision?

Q: Yes or no, one of your brakes was found to be in violation of DOT regulations? Don't you think having properly operating brakes may have helped you avoid this collision?

Some Things Your Clients May Be Doing

1. Completing driver vehicle inspections in a manner that is based on a reasonable expectation that the vehicle is safe to operate on the roadway and that they will complete their route without incident.
2. Not immediately documenting or reporting minor mechanical problems that would most likely not be a cause of a collision.
3. Trusting in the qualifications and capabilities of law enforcement to download, read and interpret data from increasingly complicated electronic systems within your trucks.
4. Honestly and sincerely trying to be helpful to law enforcement crash investigators after an incident by trying to “figure out what happened”.

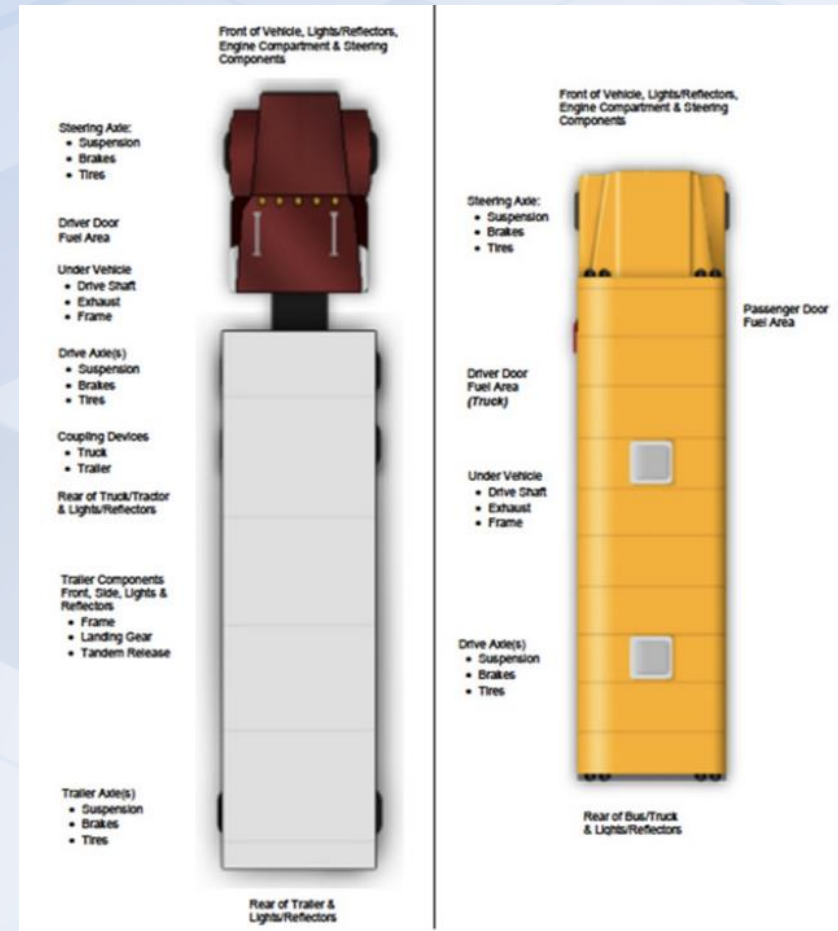
Culture of Safety

- New employee training
- Management prioritization of inspections
- Continuing education



Driver Inspection

- Drivers perform an inspection of the vehicle
- Drivers document the vehicle inspection
- The records of the Driver Vehicle Inspection Report need to be kept for 3 months
- Motor carrier/owner is ultimately responsible



Driver Inspection

- Commercial motor vehicles are complicated machines
- Identify issues before the vehicle leaves the terminal
- DOT inspectors could put the vehicle out-of-service
- As the Michigan CDL manual states, “A Vehicle inspection will help you find problems that could cause a crash or breakdown.”



Inspection Documentation

- Documentation of inspection:
- Helps the owner know when maintenance/repairs are necessary
- Creates levels of redundancy
- Driver and fellow travelers safety
- Track record



Issues

- Poor documentation of vehicle inspections
- Poor documentation of driver training
- Poor documentation of periodical safety meetings



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Vehicle Maintenance

- Annual inspection
- Periodic maintenance
- Repair records

FMCSA ANNUAL VEHICLE INSPECTION LABEL

NO.

A RECORD OF THIS VEHICLE'S ANNUAL VEHICLE REPORT IS MAINTAINED AT: ☒ MOTOR CARRIER ☐ OTHER ENTITY

COMPANY/NAME

STREET

CITY, STATE, ZIP CODE

TELEPHONE MOTOR CARRIER IDENTIFICATION NUMBER

MONTH:

JAN	<input type="checkbox"/>	FEB	<input type="checkbox"/>
MAR	<input type="checkbox"/>	APR	<input type="checkbox"/>
MAY	<input type="checkbox"/>	JUNE	<input type="checkbox"/>
JULY	<input type="checkbox"/>	AUG	<input type="checkbox"/>
SEPT	<input type="checkbox"/>	OCT	<input type="checkbox"/>
NOV	<input type="checkbox"/>	DEC	<input type="checkbox"/>

YEAR:

<input type="checkbox"/>	2017
<input type="checkbox"/>	2018
<input type="checkbox"/>	2019

VEHICLE IDENTIFICATION: IF THE VEHICLE IS NOT READILY, CLEARLY, AND PERMANENTLY MARKED, CHECK ONE AND COMPLETE.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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FLEET UNIT VEHICLE ID LICENSE/REGISTRATION NUMBER

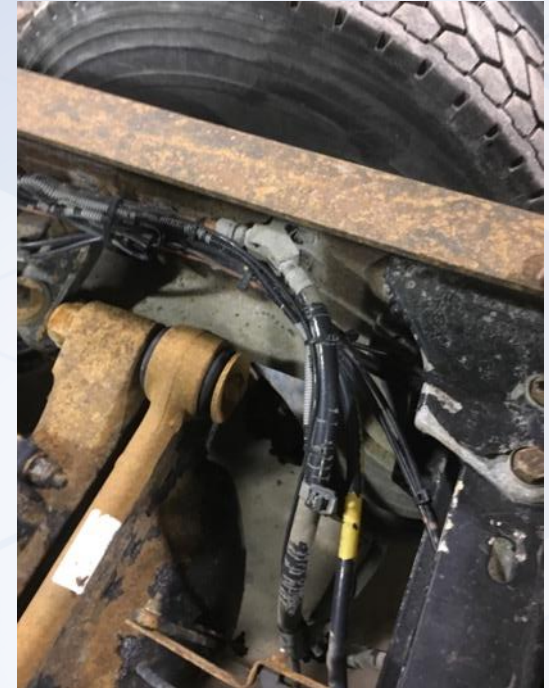
CERTIFICATION: THIS VEHICLE HAS PASSED AN INSPECTION IN ACCORDANCE WITH 49CFR 396.17 THROUGH 396.23.

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1340 (Rev. 10/16)

Damage vs. Failure

- Did the component fail causing the incident or was the component damaged in the incident



Why it is Important

- Wrongly attribute damage as pre-existing failure
- Cite driver
- Narrative of an unsafe work environment



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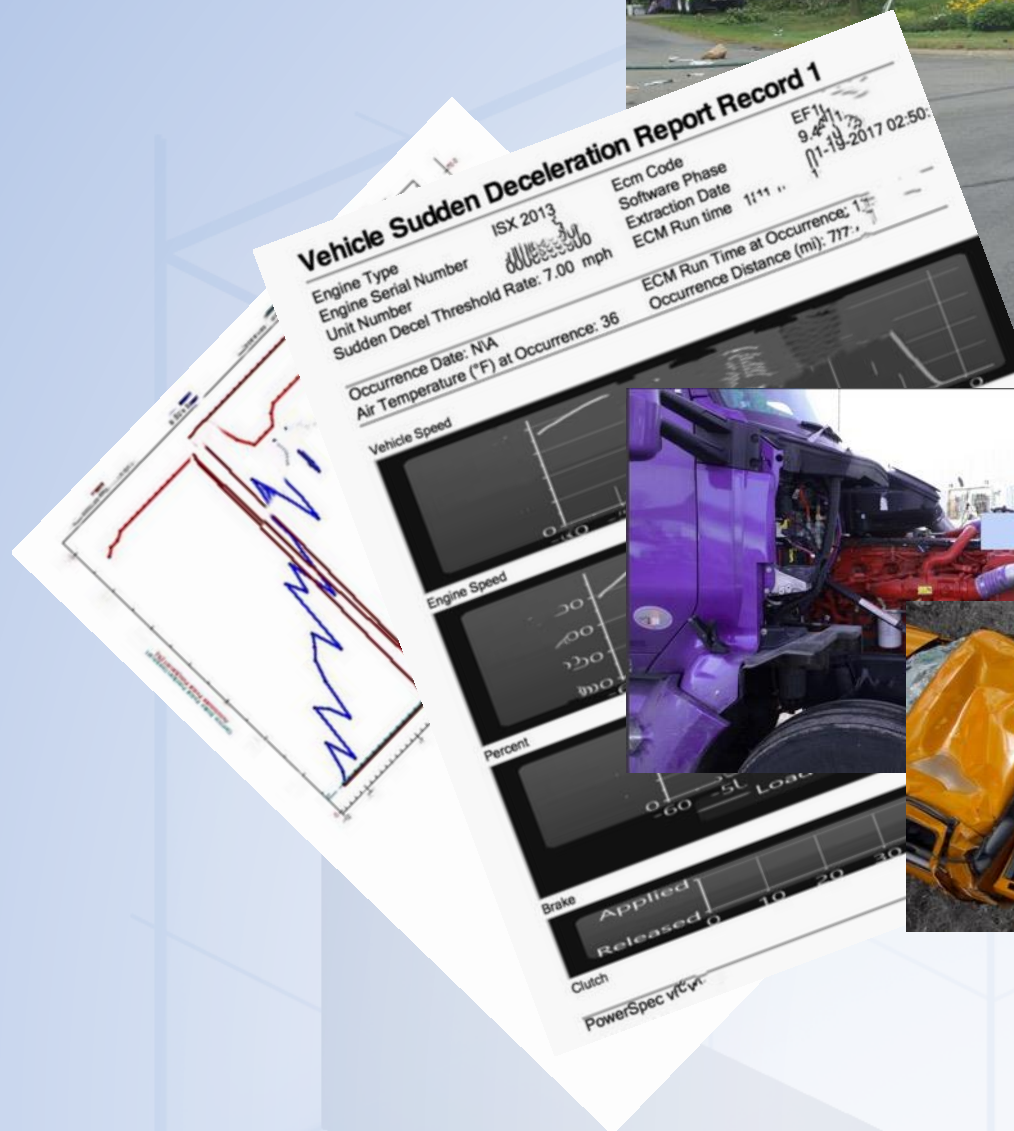
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In the Event of an Incident



Evidence Preservation

- Secure Records
- Data Collection
- Vehicle Damage
- Roadway Evidence



- Is the data recovered from the subject incident?
- Is any data from the subject incident?
- Is the data correct?

[illegible]

Data Interpretation

- How does the investigator know if the data is presented correctly?
- Proper documentation of vehicle components
- Accepted peer-reviewed methods to interpret data



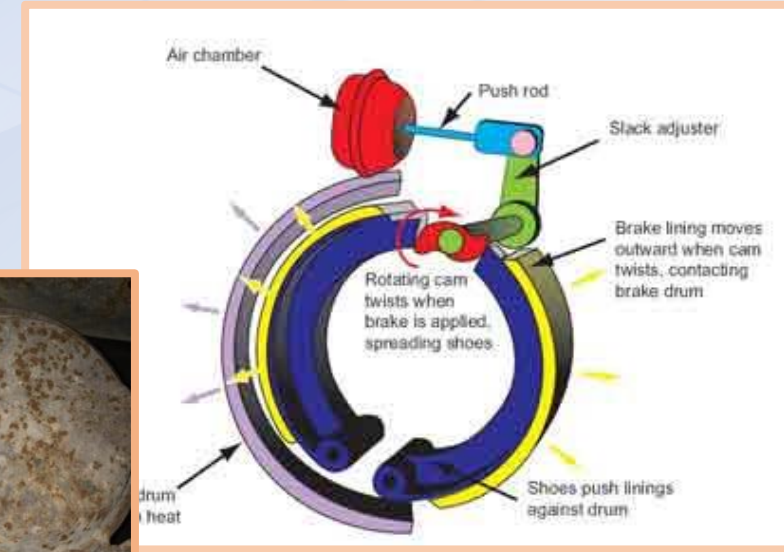
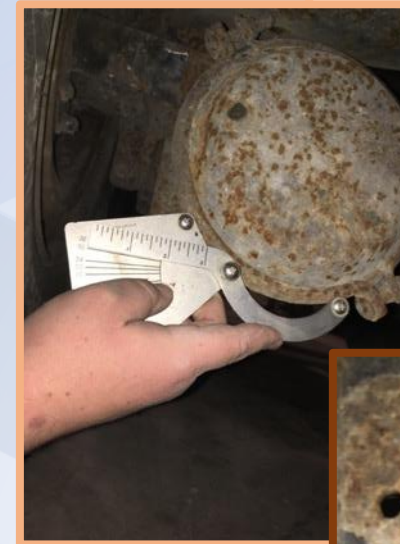
What does this all mean

- Reported speed may not be ground speed
- Accepting investigator results
- Engineering inspection can verify or contest investigator conclusions

Time (Seconds)	Vehicle Speed (mph)	Brake Status	Clutch Status
-10	55	-	-
-9	55	-	-
-8	55	-	-
-7	55	-	-
-6	55	-	-
-5	55	-	-
-4	55	On	On
-3	55	On	On
-2	54	On	On
-1	54	On	On
0	52	On	On
1	0	On	On
2	0	On	On
3	0	On	On
4	0	On	On
5	0	On	On
6	0	On	On
7	0	On	On
8	0	On	On
9	0	On	On
10	0	On	On
11	0	On	On

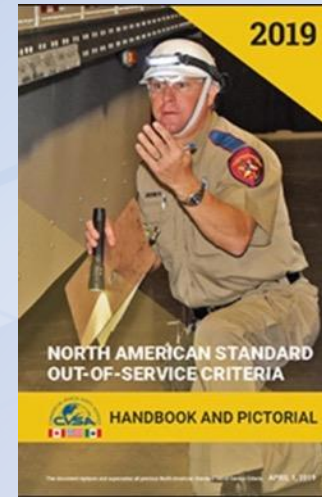
Post Incident Vehicle Inspection

- DOT Inspector or police investigator
- Mechanical inspection



Engineering Inspection

- Out-of-service criteria
- Were the brakes a contributing cause
- Would it have made a difference



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Likely means “I don’t recall seeing them and I certainly did not see them in time to identify them as a hazard and respond in time to avoid the collision because...”

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Likely means “I don’t recall seeing them and I certainly did not see them in time to identify them as a hazard and respond in time to avoid the collision because...”

They were wearing dark clothes and darted out.

Their headlights were off and they were sideways in the road.

They were in the middle of a 4 lane highway just over a rise.

and various other reasons...

“IT CAME OUT OF NOWHERE”



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- Likely means, that while we know cars, bikes, pedestrians, motorcycles cannot just appear, I had no expectation that this object was going to enter my path.

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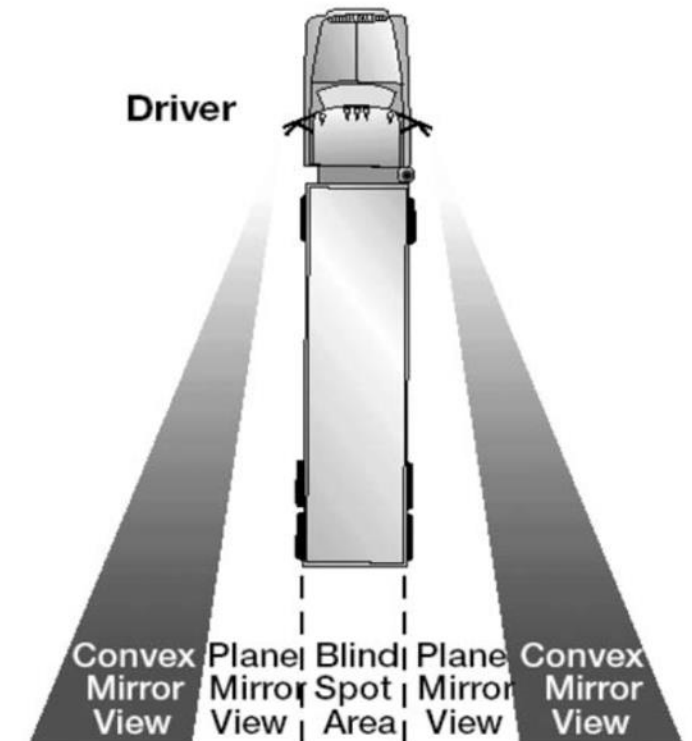
- Likely means, that while we know cars, bikes, pedestrians, motorcycles cannot just appear, I had no expectation that this object was going to enter my path.
 - It turned right in front of me
 - It was coming out of a driveway
 - It came from between the parked cars
 - It overtook me from behind at an incredible speed
 - The traffic and/or roadway geometry blocked my view of the approach
 - The other party was driving too fast or made an unexpected maneuver

“I just looked away for a second”



<https://www.volvogroup.com/en-en/news/2015/jun/360-degree-scan.html>

FIELD OF VISION USING A CONVEX MIRROR



“I just looked away for a second”

- What they really mean was traffic was operating normally, everyone was traveling at a normal pace. I scanned my instruments and my mirrors and when I looked back the situation had changed. I attempted to respond but it was too late.

“I just looked away for a couple seconds”

- What they really mean was traffic was operating normally, everyone was traveling at a normal pace. I scanned my instruments and my mirrors and when I looked back the situation had changed. I attempted to respond but it was too late.
 - Even this may not be entirely accurate it could be a combination of the previous two types of events
 - Normal scanning takes eyes off the road, unexpected events can occur during that required eyes off the road period
 - Estimations of time by drivers is often very inaccurate
 - Same goes for distance estimates

“I saw brake lights from the stopped car off in the distance partially in the road. I checked my mirrors to get over but it was too late I was already on top of them”

“I saw brake lights from the stopped car off in the distance partially in the road. I checked my mirrors to get over but it was too late I was already on top of them”

- In hindsight this is what I have been able to piece together and reconstruct as my best explanation of what must have occurred since I have now seen the outcome, the roadway and have replayed the scenario hundreds of times in my head.

Science Says

- Expectation
- Familiarity
- Physiological limitations
- Perceptual limitations
- Physics limitation

Take away -

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