



IANA

**INTERMODAL ASSOCIATION
OF NORTH AMERICA**

Is Your Safety Culture Aligned with the New CSA Score?

Understanding the New Item Response Theory (IRT) Model

DATE April 4th, 2019, 2:00 PM ET

Our Presenter



Steve Bryan
Executive VP & GM
SambaSafety Transport

CSA/IRT Scorecard



CSA Timeline



Three Key Takeaways From This Webinar

1. The concept of the new CSA program is using DATA to directly measure the safety culture of EVERY MOTOR CARRIER in the United States.
2. Nearly everything you know about the existing CSA Program is GOING AWAY!
3. We believe this is a SIGNIFICANT IMPROVEMENT to the old CSA system.

CSA Temperature



Table 3: Top Industry Issue Rankings, 2009 – 2018

	Issue Rank									
	1	2	3	4	5	6	7	8	9	10
2018	Driver Shortage	Hours-of-Service	Driver Retention	ELD Mandate	Truck Parking	CSA	Driver Distraction	Infrastr./Congestion/Funding	Driver Health/Wellness	Economy
2017	Driver Shortage	ELD Mandate	Hours-of-Service	Truck Parking	Driver Retention	CSA	Cumulative Impacts of Regs.	Driver Distraction	Infrastr./Congestion/Funding	Driver Health/Wellness
2016	ELD Mandate	Hours-of-Service	Cumulative Impacts of Regs.	Truck Parking	Economy	CSA	Driver Shortage	Driver Retention	Infrastr./Congestion/Funding	Driver Distraction
2015	Hours-of-Service	CSA	Driver Shortage	Driver Retention	Truck Parking	ELD Mandate	Driver Health/Wellness	Economy	Infrastr./Congestion/Funding	Driver Distraction
2014	Hours-of-Service	Driver Shortage	CSA	Driver Retention	ELD Mandate	Truck Parking	Infrastr./Congestion/Funding	Driver Health/Wellness	Economy	Driver Distraction
2013	Hours-of-Service	CSA	Driver Shortage	Economy	ELD Mandate	Truck Parking	Driver Retention	Fuel Supply/Fuel Prices	Infrastr./Congestion/Funding	Driver Health/Wellness
2012	CSA	Hours-of-Service	Economy	Driver Shortage	Fuel Supply/Fuel Prices	ELD Mandate	Driver Retention	Truck Parking	Driver Health/Wellness	Congestion/Truck Bottlenecks
2011	Economy	Hours-of-Service	Driver Shortage	CSA	Fuel Issues	Congestion	Transportation Funding	Tort Reform	Onboard Truck Technology	Truck Size and Weight
2010	Economy	CSA	Government Regulation	Hours-of-Service	Driver Shortage	Fuel Issues	Transportation Funding/Infrastr.	Onboard Truck Technology	Environmental Issues	Truck Size and Weight
2009	Economy	Government Regulation	Fuel Issues	Congestion/Highway Infrastr.	Hours-of-Service	Commercial Driver Issues	Environmental Issues	Tolls/Highway Funding	Truck Size and Weight	Onboard Truck Technology

Note: **Bold** indicates first year in top ten.

CSA Reform

- a. The accuracy with which the Behavioral Analysis and Safety Improvement Category (BASIC) safety measures used by the Compliance, Safety, Accountability (CSA) Safety Management System (SMS):
 - i. **Identify high risk carriers.**
 - ii. Predict or are **correlated with future crash risk**, crash severity, or other safety indicators for motor carriers, including the highest risk carriers.
- b. The methodology used to calculate BASIC percentiles and identify carriers for enforcement, including the weights assigned to particular violations, and the tie between crash risk and specific regulatory violations, with respect to **accurately identifying and predicting future crash risk for motor carriers.**
- c. The **relative value of inspection information** and roadside enforcement data.
- d. **Any data collection gaps or data sufficiency problems** that may exist and the impact of those gaps and problems on the efficacy of the CSA program.
- e. The accuracy of safety data, including the use of crash data from crashes in which a **motor carrier was free from fault.**
- f. Whether BASIC percentiles for **motor carriers of passengers should be calculated separately than for motor carriers of freight.**
- g. The **differences in the rates** at which safety violations are reported to FMCSA for inclusion in the SMS by various enforcement authorities, including States, territories, and Federal inspectors.
- h. How members of **the public use the SMS** and what effect making the SMS information public has had on reducing crashes and eliminating unsafe motor carriers from the industry.

The study should also consider:

- a. Whether the SMS provides comparable precision and confidence, through SMS alerts and percentiles, for the relative crash risk of **individual large and small motor carriers.**
- b. Whether **alternatives to the SMS** would identify high risk carriers more accurately.
- c. The recommendations and findings of the Comptroller General of the United States and the **Inspector General of the Department of Transportation**, and independent review team reports, issued before the date of the act.

CSA Current Methodology



VERSION 3.09

CSA Classic



CSA/IRT Score Model



ITEM RESPONSE THEORY (IRT)

CSA Classic



CSA Classic



CSA Classic



CSA Classic



CSA Classic



CSA Classic



CSA/IRT Score Model



CSA/IRT Score Model



CSA/IRT Score Model



CSA/IRT Score Model



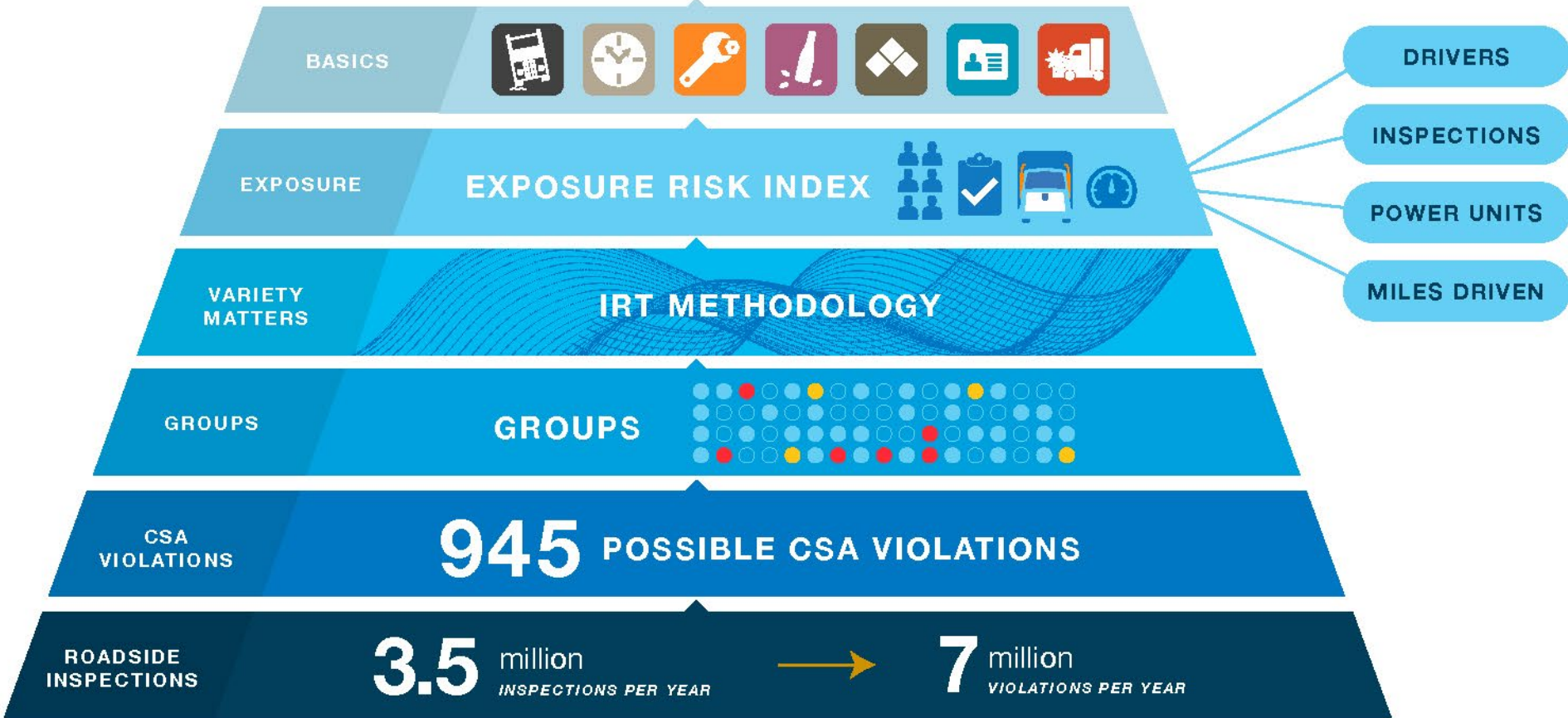
CSA/IRT Score Model



CSA/IRT Score Model



CSA/IRT Score Model



CSA/IRT Score Model



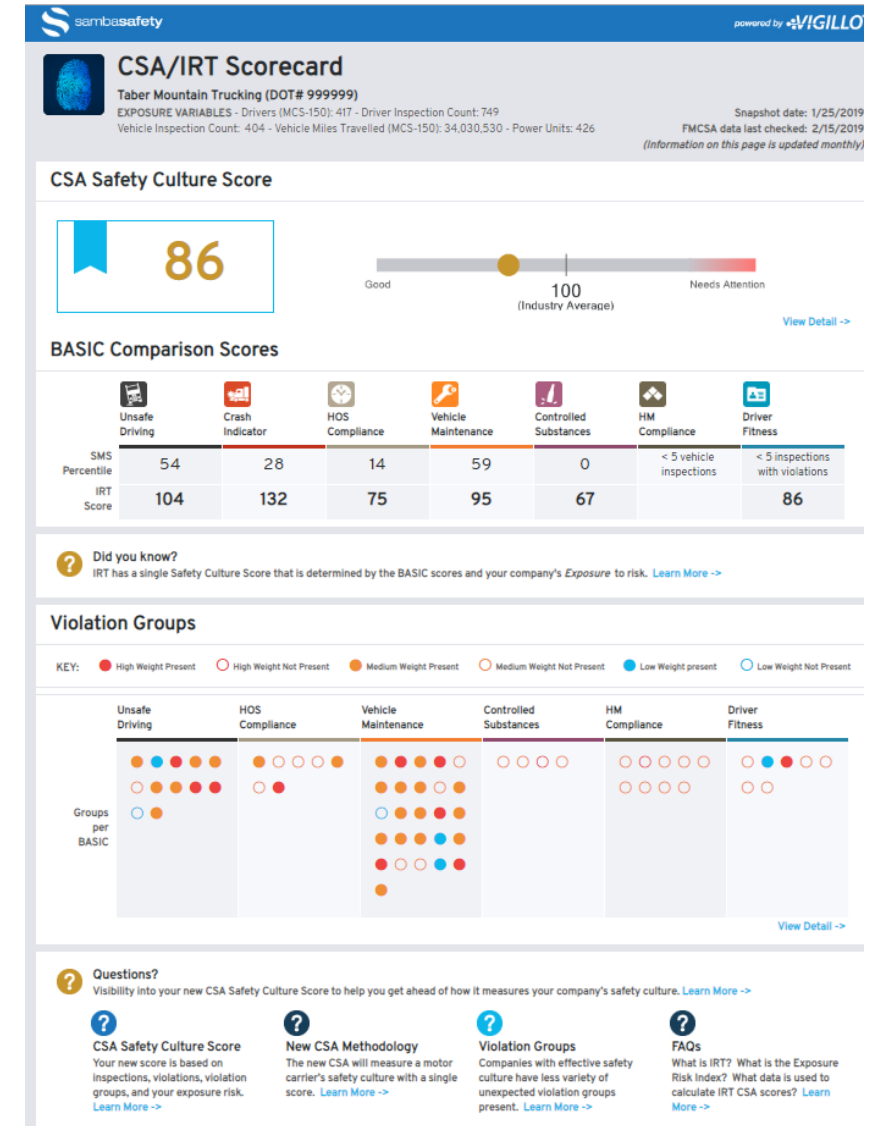
- # CSA/IRT Scorecard Home Page

Links to Desk.com for info

View of Violation Groups

CSA BASICS Side by Side

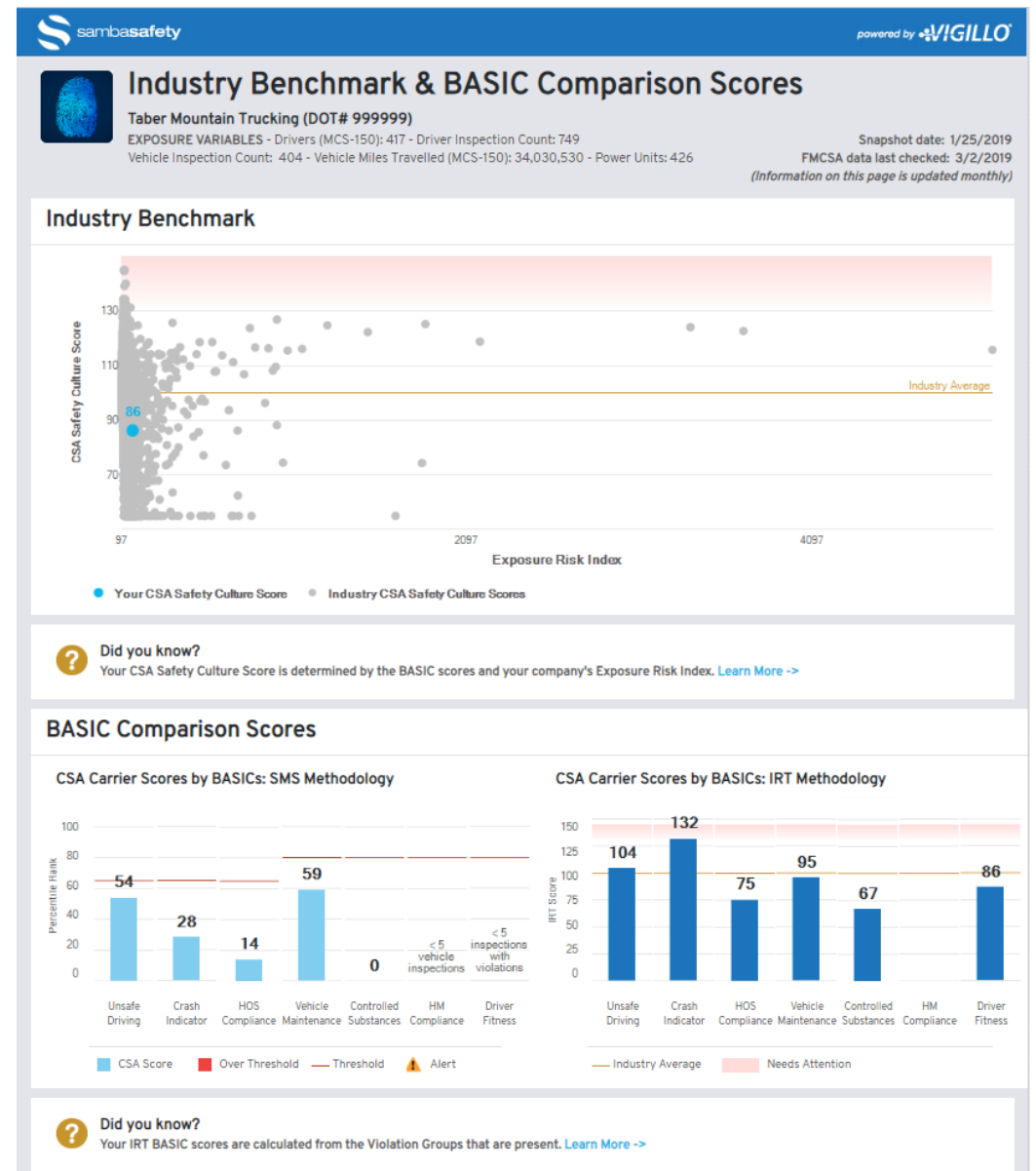
CSA Culture Score



- # CSA/IRT Scorecard BASIC Comparison & Benchmark

New and Old side by side

Scatter plot showing
CSA Culture Score

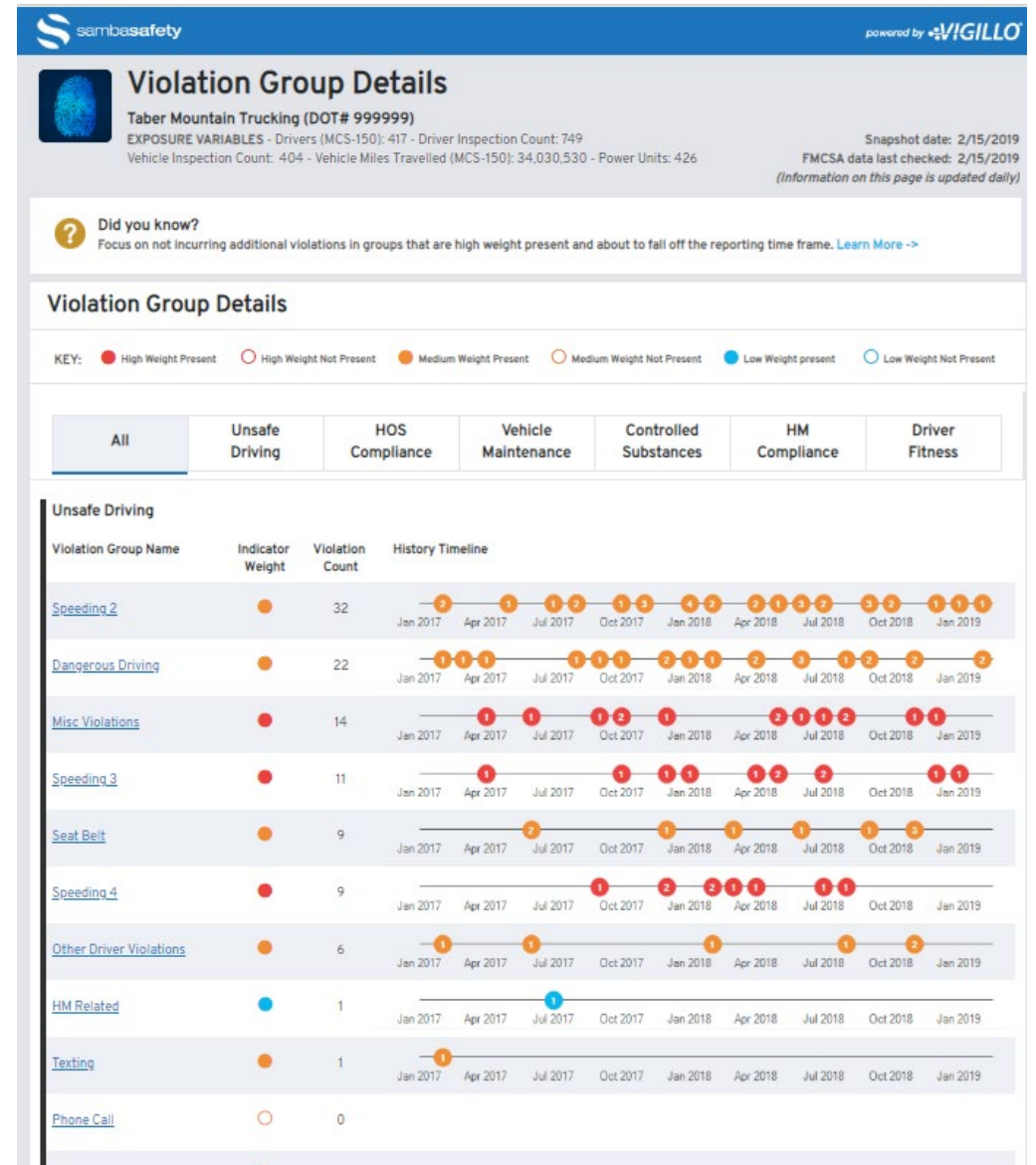


- CSA/IRT Scorecard
Violation Groups

Groups by BASIC

Violation Count/Group

Violation Timeline



- CSA/IRT Scorecard Violation Details

Violations by Group

Violation Name/Code

Violation Count

Most Recent

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CSA/IRT Scorecard

Taber Mountain Trucking (DOT# 999999)
 EXPOSURE VARIABLES - Drivers (MCS-150): 000 - Driver Inspection Count: 000
 Vehicle Inspection Count: 000 - Vehicle Miles Travelled (MCS-150): 000 - Power Units: 000

Snapshot Date: 10/10/2018
 FMCSA data last checked: 10/10/2018

Vehicle Maintenance

Group Name A
 Violation Count - 36

Violation	Violation Code	Violation Count	Most Recent	
Inoperative turn signal	393.9TS	8	10/10/2018	View Detail →
Tire - flat and/or audible air leak	393.75(a)(3)	6	10/10/2018	View Detail →
ABS - malfunctioning circuit/signal - truck tractor manufactured on or after 3/1/1997, single-unit CMV manufactured on or after 3/1/1998	393.55(d)(1)	2	10/10/2018	View Detail →
Brake tubing and hose adequacy	393.45	1	10/10/2018	View Detail →
Brake Connections with Leaks Under Vehicle	393.45DLUV	1	10/10/2018	View Detail →
Inoperative turn signal	393.9TS	8	10/10/2018	View Detail →
Tire - flat and/or audible air leak	393.75(a)(3)	6	10/10/2018	View Detail →
ABS - malfunctioning circuit/signal - truck tractor manufactured on or after 3/1/1997, single-unit CMV manufactured on or after 3/1/1998	393.55(d)(1)	2	10/10/2018	View Detail →
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Group Name
 Violation Count - 36

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- CSA/IRT Scorecard
Violation by Driver

Violations by Driver

Violation Count by Driver

Violation Date by Driver

Violation Location By Driver

CSA/IRT Scorecard
 Taber Mountain Trucking (DOT# 999999)
 EXPOSURE VARIABLES – Drivers (MCS-150): 000 - Driver Inspection Count: 000
 Vehicle Inspection Count: 000 - Vehicle Miles Travelled (MCS-150): 000 - Power Units: 000
 Snapshot Date: 10/10/2018
 FMCSA data last checked: 10/10/2018

Vehicle Maintenance: Violation by Driver

Inoperative Turn Signal 393.9TS
 Violation Count – 8

Driver	Report Number	Violation Count	Date	Driver License #	State	Active	
Smith, John	185569245	1	10/10/2018	7006177	OR	Yes	View Detail →
Hamilton, Michael	185569245	2	09/27/2018 04/02/2018	7006177	TX	Yes	View Detail →
Smith, John	185569245	1	10/10/2018	7006177	OR	No	View Detail →
Hamilton, Michael	185569245	1	09/27/2018	7006177	TX	Yes	View Detail →
Smith, John	185569245	1	10/10/2018	7006177	OR	No	View Detail →
Hamilton, Michael	185569245	1	09/27/2018	7006177	TX	Yes	View Detail →
Smith, John	185569245	1	10/10/2018	7006177	OR	No	View Detail →

Tire – flat and/or audible air leak 393.75(a)(3)
 Violation Count – 8

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Smith, John	185569245	1	10/10/2018	7006177	OR	Yes	View Detail →
Hamilton, Michael	185569245	2	09/27/2018 04/02/2018	7006177	TX	Yes	View Detail →
Smith, John	185569245	1	10/10/2018	7006177	OR	No	View Detail →
Hamilton, Michael	185569245	1	09/27/2018	7006177	TX	Yes	View Detail →
Smith, John	185569245	1	10/10/2018	7006177	OR	No	View Detail →

Did you know?
 Something informational that will help the user better understand the violation drill down. [Learn More →](#)

A blue Freightliner truck is parked on a paved surface at a port. In the background, there is a large suspension bridge with green towers and a stack of colorful shipping containers. The sky is clear and blue.

Questions?

Enter your questions in the control panel

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