

National Transportation Safety Board

Office of Highway Safety

Washington, DC 20594



HWY23MH015

MOTOR CARRIER FACTORS

Group Chair's Factual Report

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A. CRASH

Location: Highland, Madison County, Illinois
Date: July 12, 2023
Time: 1:48 a.m. CDT

B. MOTOR CARRIER FACTORS GROUP

Group Chair	Michael S. Fox NTSB Washington, DC 20594
Group Member	Charles Bunting FMCSA Springfield, Illinois 62703
Group Member	MSGT Todd Armstrong Illinois State Police Springfield, Illinois 62703
Group Member	MSGT Travis Irwin Illinois State Police Collinsville, IL 62234
Group Member	Allan Smith Director Safety and Security Greyhound Lines Dallas, TX 75201

C. CRASH SUMMARY

For a summary of the crash, refer to the *Crash Information and Summary Report*, which can be found in the NTSB docket for this investigation.

D. DETAILS OF THE INVESTIGATION

This investigative report addresses the motor carrier operations of striking vehicle involved in this crash, identified as Greyhound Lines Inc. This report documents the company history, hiring practices, driver qualification, hours of service, drug and alcohol testing, and maintenance procedures of Greyhound Line Inc. Additionally, this report will also briefly review the operations of Vehicle 2 owned and operated by MZ Cargo, Vehicle 3 owned and operated by Richard Wolf Trucking, and Vehicle 4 owned

and operated by Robert Branum Trucking. This report will briefly address the Federal oversight of the four motor carriers involved in this crash.

E. MOTOR CARRIER OPERATIONS

The motor carrier of the striking vehicle in this accident is identified as Greyhound Lines Inc. (Greyhound). According to the Federal Motor Carrier Safety Administration (FMCSA) Motor Carrier Management Information System (MCMIS), the carrier was issued United States Department of Transportation (USDOT) number 44110. The carrier is registered as a "For-Hire Passenger" motor carrier and operates from its principal place of business in Dallas, Texas.¹ At the time of the crash, the carrier had active operating authority and was issued Motor Carrier number (MC #) 1515.²

1.1 Carrier History

Greyhound is an intercity bus common carrier that operates fixed routes and charter service throughout the US. The company's first route began in Hibbing, Minnesota in 1914 and was originally known as Mesaba Transportation Company. In 1929, the company adopted the name *The Greyhound Corporation*. In October 2007, Greyhound was acquired by a subsidiary of Scottish transportation company First Group. On October 21, 2021, Flix SE a German based transportation company, acquired Greyhound Lines Inc. Since July 2022 the Dallas-based entity Flix North America, Inc. manages operations for both Greyhound and FlixBus across North America.³

1.2 Greyhound Corporate Structure/Operations

Greyhound corporate structure consisted of the following officers and key personnel:

- President / Chief Operating Officer
- Vice President (VP) Operations
- Director of Safety and Security
- Director of Maintenance

¹ See Motor Carrier Attachment- Greyhound MCS-150.

² Motor Carrier Number (MC) and Operating Authority: § 392.2: Applicable operating rules-Every commercial motor vehicle must be operated in accordance with the laws, ordinances, and regulations of the jurisdiction in which it is being operated. However, if a regulation of the Federal Motor Carrier Safety Administration imposes a higher standard of care than that law, ordinance or regulation, the Federal Motor Carrier Safety Administration regulation must be complied with. For-Hire passenger carrying operations are required to register for operating authority and meet the minimum levels of insurance as required under §387.33.

³ For additional information see: [Long distance bus operator FlixBus](#).

The company is divided into four divisions: 1). Customer Service / Field Operations, 2). Maintenance Operations, 3). Food service, and 4). Support. Each division is headed by a regional VP. Per carrier officials the company operates 1023 buses, 1054 drivers. The company owns 22 terminals throughout the US and operates 592 fixed routes in the US.

1.3 Hiring Practices

According to Greyhound safety officials, the company recruited drivers from newspapers, the internet and job postings. Greyhound has established the following as minimum qualifications for their drivers.⁴

1. At least 22 years of age
2. A valid CDL with Passenger and air-brake endorsement
3. Minimum of three (3) year's driving experience (commercial or private)
4. Able to handle up to 50 pounds
5. Good character and positive work history
 - Consent to a background check and alcohol/drug screen
6. Good driving record - No more than 2 moving convictions/accidents in the past 3 years or more than 3 moving convictions/accidents in the past 5 years. (Speeding, tailgating, improper passing, failure to yield, illegal turns; running red lights are examples of moving violations).

1.3.1 Hiring Process

The hiring process for drivers consists of three phases which are highlighted below:

Phase I - A perspective new driver must fill out an on-line application. Next the terminal manager reviews the application. If the applicant meets standards, the terminal manager will conduct an in-person interview. The applicant must bring a copy of their CDL, copy of their motor vehicle record (MVR) and DOT medical certificate. If the applicant passes the interview, the driver then submits to a pre-employment DOT drug test and DOT physical at a company appointed medical facility. Additionally, the driver signs a consent for a background check. Next the driver must complete 10 hours of computer based on-line training modules.

Phase II - The new driver is offered to attend one of three driver schools located in Atlantic City, NJ; Dallas, TX; or Chicago, IL. The driving school consists of a two-week (13 days) program which includes classroom and on-the-road driving training. Classroom training includes DOT regulations, pre/post trip inspections, emergency procedures, and basics of safety. If the student driver successfully completes the training program, the driver advances to the next phase.

⁴ See Motor Carrier Attachment: Greyhound Professional Motorcoach Operator.

Phase III - The new driver is sent to their perspective home terminal and attends an additional two-week training program. The driver must pass an additional 10 hours of computer-based training on various operational, and OSHA based safety classes. The first week the driver drives with a senior driver trainer without passengers and learns the routes that the driver will be assigned. The second week the driver drives the route with passengers and the driver trainer observes. Lastly, the driver will undergo a final road test with the driver trainer and if he/she passes then is considered “qualified” and a full time Greyhound employee. The driver is compensated during the training program.

1.4 Greyhound Safety Culture

The carrier’s safety culture is framed by policies and procedures that are structured by four elements: 1). Greyhound Safety Plan, 2). Greyhound Safety Manual, 3). Driver’s Rule Book and 4). Union Agreement. Additionally, the company has on-going safety initiatives throughout the calendar year. Moreover, drivers are guided by the Greyhound Driver’s Rule Book.

1.5 Greyhound Safety Plan

The Greyhound Safety Plan for calendar year 2023 outlined objectives and activities to lower risks and improve safety performance.⁵ The plan’s states three key objectives: 1). Eliminate serious incidents and fatalities. 2). Improve and enhance the “Be Safe Program” - providing all new managers with additional training in the program and hold all managers accountable. 3). Improve our overall safety performance - through better use of technology, safety review boards, and enhance the “Be Safe Program.” The safety plan outlines various areas of focus and actions to take corrective action. The plan also provides a matrix of Greyhound initiatives with stated requirements, due dates, and comments. One example of a Greyhound initiative was high interest drivers.⁶ The corrective action for this initiative included: continue to coach, counsel, and discipline to change behaviors with an emphasis on speeding and following distance. The goal of the safety plan is to address areas of risk and improve safety performance.

1.6 Greyhound Safety Manual

The Greyhound Safety Manual consists of 75 policies and indicates the last revision was on October 1, 2015.⁷ These policies provide company procedures for USDOT regulated procedures such as drivers’ hours of service, drug testing as well as OSHA specific guidelines that include such topics as: energized circuits, ladder safety,

⁵ See Motor Carrier Attachment - Greyhound Safety Plan.

⁶ High Interest Drivers are drivers with the highest Lytx DriveCam event scores during the last three months.

⁷ See Motor Carrier Attachment - Greyhound Safety Manual (Excerpts).

and safe work practices. Greyhound had installed inward and outward facing camera to evaluate driver behavior using the DriveCam system by Lytx however, the Greyhound Safety Manual had no policy on coaching/driver remediation following events flagged by DriveCam system. (See Section 1.10 for further details). Several safety topics that focus on driver oversight are highlighted in the following sections.

1.6.1 Obstructive Sleep Apnea Protocols

As part of the Greyhound DOT physical exam process, all Greyhound drivers are screened for Obstructive Sleep Apnea (OSA).⁸ Criteria and general recommendations include screening when a driver displays any of the following conditions: snore loudly, tired during the day, stops breathing or been told that the driver stops breathing while sleeping, and the driver has been prescribed hypertension medication or diabetes. Additionally, the driver must have at least three of the following elements:⁹

- Body mass index (BMI) greater or equal to 40%
- Over 50 years of age
- Neck circumference: male greater than 17 inches or female 16 inches
- Gullet Mallampati III or IV¹⁰

If these conditions are met, the driver must undergo a sleep study within 90 days of the DOT physical. Drivers that have a BMI greater or equal to 40% must obtain a sleep study. If a driver's sleep study results in an Apnea-Hypopnea Index (AHI) greater than 15, a CPAP machine may be required.^{11,12}

⁸ "OSA is a respiratory disorder characterized by a reduction or cessation of breathing during sleep. OSA is characterized by repeated episodes of upper airway collapse in the region of the upper throat (pharynx) that results in intermittent periods of partial airflow obstruction (hypopneas), complete airflow obstruction (apneas), and respiratory effort-related arousals from sleep (RERAs) in which affected individuals awaken partially and may experience gasping and choking as they struggle to breathe. Risk factors for developing OSA include Obesity, male gender, advancing age, family history of OSA, large neck size, and an anatomically small oropharynx (throat). Additionally, OSA is associated with increased risk for other adverse health conditions such as: Hypertension (high blood pressure), diabetes, obesity, cardiac dysrhythmias (irregular heartbeat), myocardial infarction (heart attack), stroke, and sudden cardiac death." Retrieved from: <https://www.federalregister.gov/articles/2016/03/10/2016-05396/evaluation-of-safety-sensitive-personnel-for-moderate-to-severe-obstructive-sleep-apnea>

⁹ See Human Performance Attachment – Excerpts from Greyhound's OSA Screening Policy.

¹⁰ A Class III or IV result means that it is simply easier for the patient's airway to be blocked by tissue when they sleep, resulting in [obstructive sleep apnea](#). Retrieved from: [Understanding the Mallampati score - Clinical Advisor](#).

¹¹ AHI The AHI is measured on a numeric scale. Scores for adults are divided into three categories, which correspond to different levels of OSA severity: mild an AHI of at least 5 events per hour, but fewer than 15. Moderate An AHI of at least 15 events per hour, but fewer than 30. Severe - An AHI of at least 30 events per hour. Retrieved from [Understanding the Apnea-Hypopnea Index \(AHI\) | Sleep Foundation](#)

¹² Continuous positive airway pressure (CPAP) is a machine that uses mild air pressure to keep breathing airways open while you sleep. Retrieved from: [CPAP - CPAP | NHLBI, NIH](#)

1.6.2 Driver Refresher / Remedial Training

According to the Greyhound Safety Manual driver refresher / remedial training was required under the following conditions:

- Return to work - this training is for a driver with 30 days or more "inactive" status (i.e. sick leave, family leave, furlough, workers compensation, etc.). 45 or more days while in "active" status (i.e. vacation, special project, etc.)
- Post Collision / for cause - required for drivers that have a preventable collision, or whenever mandated by management for retraining / corrective purposes.
- Seasonal - For reasons of seasonal training (i.e. winter driving, on set of adverse weather conditions).
- Biannually - At a minimum, the "Stay Sharp" will be administered every two years to every driver.

1.6.3 Return to Work Program

Post-injury refresher training shall be conducted immediately upon the employee's return to duty from an injury, as part of their normal "return to work" process. The remedial training will be tailored to address the specific injury causes as determined by the post-injury supervisor investigation of the accident.

Additionally, the training session reviewed general safe work guidelines designed to prevent reoccurrence of further injuries (i.e.: safe lifting procedures, avoiding slip and falls accidents, safety data sheets, HAZCOM (Right to Know, HAZMAT, Personal Protective Equipment, No Horseplay on the job, etc.). A full list of the Company's safety policies and procedures are listed in the Greyhound Safety Manual.

Refresher training is conducted by management/training personnel and documented in local personnel files and training records using the SF-75 "Report of Safety Meeting/Training Session". Completed training Form SF-75s are forwarded to the Regional Safety Manager.

1.6.4 Stay Sharp Program

According to Greyhound safety officials, the company has a continuing driver education program. Part of the curriculum includes the "Stay Sharp Program." The program is designed to reinforce key safety programs of the company. The course covers such topics as: professional behavior, fatigue management, Americans with Disabilities Act (ADA) compliance, pedestrian awareness, obstructive reach, fire

emergency evacuation, adverse weather, and following distance. The total training is six hours.¹³

1.6.5 Safe Driver Award Recognition Program

The carrier did not have a bonus or monetary incentive program for safe driving achievements. The carrier's safety awards program is to recognize those drivers who have achieved the "Greyhound Professional Standard." New drivers are awarded or recognized by the company when a driver completes a period of six months without a preventable collision. Subsequent awards are presented every consecutive 12 months without a preventable collision.

If, during any award year, a driver has one preventable collision, that award year must be completed, and the driver must drive an additional twelve months without a preventable collision. If a driver has a preventable crash during an award year, a twelve-month penalty will be added. Any leave of absence, furlough, or separation from driving for any reason, for a period of 30 consecutive days or longer, will cause the driver's anniversary date to be delayed by the time length of that furlough, leave of absence, or separation.

Drivers who meet the award criteria were presented with a Greyhound lapel pin with a number corresponding to the number of years of safe driving. Milestone years such as 10, 15, 20, 25, and 30 are presented with jewelry such as a watch or ring with corresponding years of safe driving recognition.

1.6.6 Safety Meetings

All Greyhound facilities hold a regularly scheduled, open, voluntary safety meeting. Safety meetings are held monthly and are open to all employees who wish to participate. Managers of terminals, maintenance shops, food service, and drivers post (in advance) the time, date, and location of all regularly scheduled meetings.

Specific topics for the agenda were typically posted with the announcement of the pending meeting. Agenda items will be directed by management and must cover only safety related items. Employees must speak for themselves and cannot be represented by anyone else. The manager should advise concerned employees of the results of the meeting and indicate all corrective action taken since the last meetings.

¹³ Obstructed reach in ADA is the maximum high reach is reduced to 46 inches when the reach over the obstruction is deeper than 10 inches (to a maximum of 24 inches). Obstructions at side reaches are limited to a height of 34 inches. Retrieved from: [Chapter 3: Operable Parts \(access-board.gov\)](#)

1.6.7 Drivers Prepared for Work

Greyhound has a policy stating that "drivers must report to work prepared to provide a full measure of customer service." In this policy Greyhound also addressed the potential issue of long commute time from home to work in this policy. This policy stated: "The Company is committed to the safety of its passengers and employees. All drivers must arrive at work on time and properly rested. All work shall be performed within Greyhound guidelines; therefore, regular drivers' commute time plus the "on-duty" time of the run may not exceed 16 hours. (Any exceptions to this guideline must be approved by local management in conjunction with the safety department)." If a regular driver's commute time plus the on-duty not driving/driving time is greater than 16 hours he will not be permitted to bid the run. Commute time is defined as the time from when a driver leaves home until his/her report-to-work time.

Extra Board Drivers must live close enough to their home terminal so they can report to work within 2 hours of a call.¹⁴ Drivers are reminded that they are to be licensed in the State where they have true, fixed, and permanent homes and principal residences.

Grooming and uniforms must be in accordance with company policy. DOT Logs, DOT medical card, and Commercial Driver's License must be valid and current. Drivers' cell phones must be turned "on" and fully charged. The cell phone can never be used while operating the bus.

1.7 Greyhound Driver's Rule Book

All drivers are trained and receive a copy of the *Greyhound Driver's Rule Book*.¹⁵ The 29-page *Greyhound Driver's Rule Book* provided to investigators indicated the latest revision was February 2019. The *Greyhound Driver's Rule Book* consists of five sections: Section 1- General rules, Section 2- Driver behavior and Image, Section 3- Schedule Performance, Section 4- Customer Service, and Section 5- Bus Operations / Safety. The rule book states "safety is a primary concern of the company. It is extremely important that drivers follow all safety rules and training provided by the company as well as; rules, regulations, and laws pertaining to safe operation of a commercial motor vehicle." Under the section of discipline "drivers may be disciplined or discharged for any violation or infraction of any company policy, or violation of any federal, state/provincial, or local law or regulation." Excerpts of some safety topics from the *Greyhound Driver's Rule Book* are discussed below.

Section 2-17 Reporting for Work - This section stated that "drivers shall report for duty well rested, with proper equipment and uniform, and in sufficient time as may be required and prescribed to perform his/her duties." If a driver is unable to report to work at the prescribed time, the driver must promptly notify a company supervisor of

¹⁴ Extra Board Drivers are substitute drivers.

¹⁵ See Motor Carrier Attachment - Greyhound Driver Rule Book (Excerpts).

the inability to do so. Driver may be disciplined up to and including discharge for attendance issues.

Section 5-15 Speed - This section stated "buses are not to be operated in excess of the posted speed limit. Regardless of the governed setting on the bus or posted speeds that exceed 70 mph, the bus should never be operated in excess of 70 mph. It will be the driver's responsibility to maintain the bus's speed on downhill grades in accordance with these guidelines."¹⁶

Section 5-24 Night Driving/Reduced Visibility - This section stated: "drivers will add at least (1) second of following distance when driving at night."

It should be noted that the *Greyhound Driver's Rule Book* does not have a section that describes the company procedures, purpose, function, or application of the Lytx DriveCam system.

1.8 Union Contract

Greyhound drivers and non-management personnel are represented by the Amalgamated Transit Union local 1700. The contract serves to provide expectations to include benefits, wages, job duties, bidding procedures for routes, recognition of seniority, driver rest, and other operational measures. The union contract had an effective date of October 1, 2022 to September 30, 2025. Contained in the union contract were specific guidelines regarding safety and discipline. The following sections highlight some of those guidelines (Articles) within the union contract.¹⁷

1.8.1 Article G-7- Discipline

When disciplining employees, complaints, discipline, or records which have been brought to the attention of the company 24 months prior to the current incident will not be used to determine guilt or penalty. This provision will not apply to safety-related activities, including speeding violations, chargeable accidents (only preventable accidents will be charged against a driver's record) damage to property, personal injury, and use of alcohol or illegal substances.

1.8.2 Article G-17- Safety

The union contract provides drivers a section on "safety." This article is divided into four sections. **Section A** outlines Greyhounds requirements for adhering to DOT medical examinations. The guidance states that DOT physicals must be conducted by a company selected physician, and outlines driver requirements and consequences for

¹⁶ Ibid.

¹⁷ See Motor Carrier Attachment - Greyhound Union Contract (Excerpts).

failing to adhere to the policy. **Section B** outlines the requirements for random drug and alcohol testing. This section applies to drivers and maintenance employees. **Section C** outlines safe maintenance of equipment and machinery. This section states that Greyhound agrees to maintain all equipment in a safe and sanitary condition. The last **Section D** outlines safety and service awards, which states that Greyhound may provide awards for safety and service.¹⁸

1.8.3 Article O-4 - Rest

The union contract provides a section on "rest." This section stated regular operators must have eight hours off between the signoff and sign on time of their run. Extra Board and regular drivers working extra who are required to have nine hours off between signoff and the time of a call to report. However, operators may be assigned to the second half of a regular straight-away run if they completed the first portion of the same run, subject to DOT regulations. Such operators can work after eight hours of rest.

1.8.4 Article O-5 - Cancelation and Late Arrival

In this section, it stated that if Greyhound canceled a scheduled route for unforeseen reasons, the driver would still be guaranteed their route pay. This section also described procedures for when drivers arrived late. Under section D "if a regular operator on a "hold down"¹⁹ is unable to secure their rest at their layover location due to lack of hotel rooms, the operator must first attempt to notify the local management and if none are available then contact the operations support center immediately."

1.8.5 Article O-15 - Regular Layover Room

Under this section it stated that Greyhound would provide and arrange for suitable rooms for out-of-town operators at regular layover points. Greyhound will cover the cost of hotel rooms.

1.9 Fatigue Management Program

As a result of a previous crash and another NTSB investigation: HAR-00-01, *Burnt Cabins, Pennsylvania 1998*,²⁰ Greyhound hired an outside safety consultant Dr. Mark

¹⁸ Ibid.

¹⁹ A "Hold Down" is a temporary assignment to cover a driver who is on leave.

²⁰ NTSB/HAR-00-01: About 4:05 a.m. on June 20, 1998, a 1997 Motor Coach Industries 47-passenger motorcoach, operated by Greyhound Lines, Inc., was on a scheduled trip from New York City to Pittsburgh, Pennsylvania, traveling westbound on the Pennsylvania Turnpike near Burnt Cabins, Huntingdon County, Pennsylvania. As the bus approached milepost (MP) 184.9, it traveled off the right side of the roadway into an emergency parking area, where it struck the back of a parked tractor-semitrailer, which was pushed forward and struck the left side of another parked tractor-semitrailer. Of

Rosekind, founder of Alertness Solutions Inc. to help Greyhound implement a fatigue management program.²¹ As a result, all drivers receive a block of instruction on fatigue during the initial driver training program. Additional fatigue management training is conducted during the annual recurrent driver training cycle. The hour-long block of training includes signs of fatigue, ways to avoid fatigue and sleep apnea.²² The carrier also structured their routes so that it included commute time, would not exceed the hours-of-service requirements, and addressed routes that required driver layovers.

1.10 Driver Monitoring System - DriveCam by Lytx

As mentioned, Greyhound used a driver monitoring system called DriveCam by Lytx.²³ Policies, procedures, or benefits regarding the use of the DriveCam system were not described in the Greyhound Safety Manual, Driver Handbook or Union Contract. According to the crash driver's training records however, he acknowledged an inter-office memorandum which stated: "tampering with or blocking the DriveCam camera or those that blatantly violate our rules of the road, using your cell phone or not using your seatbelt while driving, may result in disciplinary action."

Greyhound first starting using the DriveCam system in 2011. The DriveCam system uses an inward and outward facing camera that captures risky driver behaviors in real time. The DriveCam driver safety solutions pairs machine vision and artificial intelligence (MV+AI)²⁴ with traditional telematics sensors to help fleets efficiently and accurately capture risks, alert drivers to address risks on the road as they happen, and support fleet managers with a complete and customizable toolkit for effective behavior change.²⁵ The crash-involved bus was equipped with the latest Lytx DriveCam SF300 inward and outward facing camera system. NTSB investigators inspected an exemplar bus to the crash-involved bus which was equipped with the same DriveCam system as the subject bus. For additional details, see Figure 1.

the 23 people on board the bus, the driver and 6 passengers were killed; the other 16 passengers were injured. The two occupants of the first tractor-semitrailer were injured, and the occupant of the second tractor-semitrailer was uninjured. See NTSB Accident number HWY98MH033 for further details. Retrieved from: <http://www.nts.gov/investigations/AccidentReports/Pages/HAR0001.aspx>

²¹ Alertness Solutions Inc. a scientific consulting firm that translates knowledge of sleep, circadian rhythms, alertness, and performance into practical products, services, and strategies that improve safety and productivity. Retrieved from: https://spinoff.nasa.gov/Spinoff2006/ps_4.html

²² Greyhound Obstructive Sleep Apnea Protocols, see Human Performance Attachment- *Excepts from Ground's OSA Screening Policy*.

²³ For additional information see: [Best in Class Fleet Management \(lytx.com\)](http://lytx.com/Best-in-Class-Fleet-Management)

²⁴ [Machine Vision + Artificial Intelligence \(lytx.com\)](http://lytx.com/Machine-Vision-Artificial-Intelligence)

²⁵ Retrieved from: [Our Technology \(lytx.com\)](http://lytx.com/Our-Technology)



Figure 1. Exemplar Bus with DriveCam Unit.

The DriveCam MV+AI capabilities include detection of distracted drivers.²⁶ In-cab alerts and video recordings are triggered for a wide range of distracted driving and other risky driving behaviors both inside and outside the vehicle, including:

- Cell phone use
- Driver Eating or drinking.
- Driver Smoking
- Inattentive driving
- Lack of seat belt use
- Failure to stop at intersections.
- Weaving within or departing from lanes
- Following another vehicle too closely

1.11 Greyhound DriveCam Program

As mentioned, Greyhound started using DriveCam program as a pilot program in 2011. The program was implemented company-wide between 2013-2015. Per

²⁶ For additional information see: [Distracted Driving Guide: Statistics for Fleet Managers \(lytx.com\)](https://www.lytx.com/resources/distracted-driving-guide-statistics-for-fleet-managers)

Greyhound officials, the DriveCam system is designed to encourage safe driving performance and reduce at-risk driving behaviors and not to be used as disciplinary tool. The DriveCam system allows the carrier to respond to potential unsafe driver behavior that is created by a hard brake or stability control event. A hard-brake event is triggered by a 9 -mph deceleration in 1 second. Additionally, the system is designed to record a “stability control” event. This event is triggered by sudden driver steering input that could result in a potential rollover. When either of these events is initiated, the system generates a “critical event report” (CER). Once the system is triggered, a 20 second video is saved consisting of 10 seconds before the force was experienced and 10 seconds afterward.”²⁷ The Lytx program provides three key safety benefits include: 1). Identifying risky driver behaviors and high-risk drivers, 2). Provides a platform for management coaching, and 3) Allows positive recognition for the safest drivers. Since starting the program, Greyhounds insurance claims have decreased.²⁸ Table 1 summarizes Greyhound claims since using the Lytx DriveCam.

Table 1. Greyhound Claims Since Using Lytx DriveCam.

Time Period	Annual Claims in \$ millions
3 years prior to implementation (FY 10-12)	26.9
2 years during implementation (FY 13-14)	20.2
2 years post implementation (FY 15-17)	14.6

1.11.1 Lytx Recognition Program

As stated above, using the Lytx DriveCam program allows recognition for the safest drivers. Each year Lytx recognizes drivers who have demonstrated the safest driving behaviors. For the past seven years, Greyhound had drivers who won 1st, 2nd, or 3rd Place awards for carriers in the bus and transit category.²⁹

According to Greyhound records, using the Lytx DriveCam system the company has seen a decrease of 75% in frequency of risky behaviors and 74% decrease in the severity of events recorded each month. Figure 2 describes the downward trend of recorded risky behaviors between 2011 and 2020 (59 months).³⁰

²⁷ See Motor Carrier Attachment -Greyhound DriveCam Memorandums.

²⁸ See Motor Carrier Attachment - Greyhound Lytx Program Presentation.

²⁹ These awards are for the calculated for the Transit Division of Lytx, representing various bus and transit companies nationally.

³⁰ Ibid.

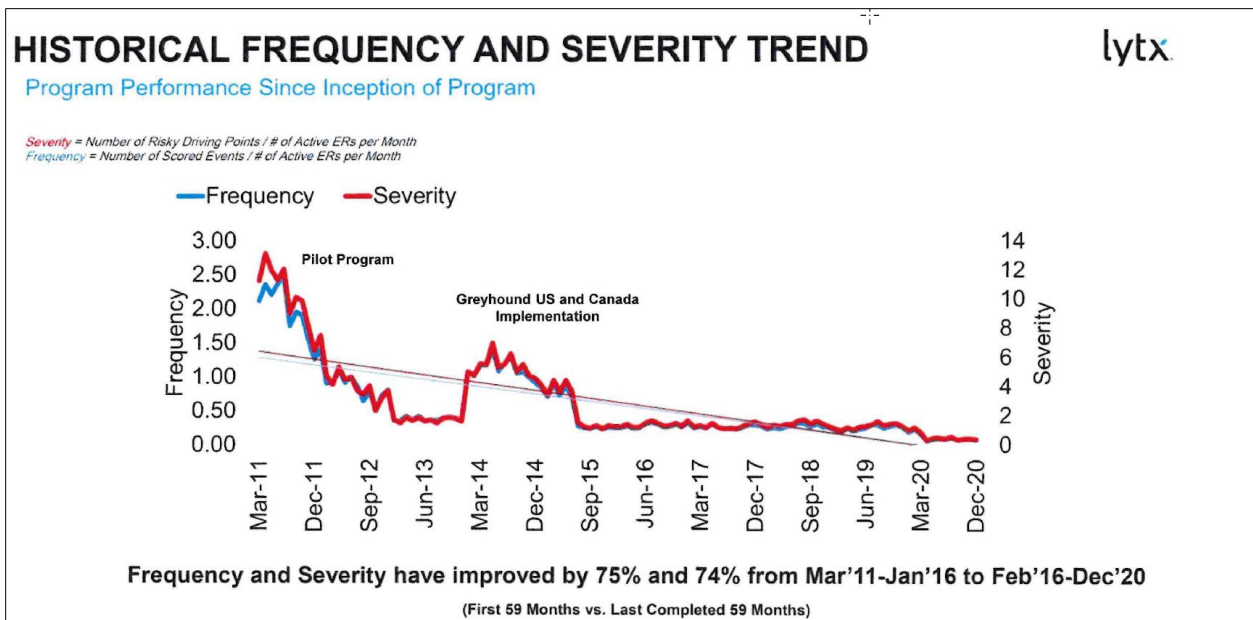


Figure 2. Historical Frequency and Severity Trend³¹


In addition to these trends Greyhound reported reductions in risk and obtained operational efficiency. For example, collisions had improved (decreased) by 48% from October/December 2019 to October/December 2020. Near (misses) collisions had improved (decreased) by 79% from October/December 2019 to October/December 2020. Other decreases were noted for the period between October 2020 and January 2021 which included the following categories:

- Following distance - 67% decrease
- Failed to Stop - 70% decrease.
- Incomplete Stop - 55% decrease
- Overall Collision Mitigation - 75% decrease

1.12 Top Drivers of Interest

As mentioned, the DriveCam system has management tools that allows Greyhound to coach drivers that display risky behaviors. An additional feature of the DriveCam system allows the carrier to track and rank drivers who display the riskiest behaviors each month. The report "Top Drivers of Interest" is generated monthly by Greyhound. It should be noted that the crash-involved driver was on the list for May 2023. For additional information see Figure 3.

³¹ See Motor Carrier Attachment: Greyhound Lytx Program Presentation.



Top Drivers of Interest

Greyhound
May 2023 (Last 30 days)

Total Score Ranking

Driver	Group	Event Score	Speed Violations Score	Total Score
	New York	156	5	161
	New York	142	0	142
	Atlantic City	131	0	131
	Philadelphia	86	20	106
	New York	104	0	104
	New York	94	0	94
	Philadelphia	69	10	79
	Los Angeles	75	0	75
	New York	75	0	75
	Houston	60	10	70
	Philadelphia	52	15	67
	Sacramento	65	0	65
	New York	49	15	64
	Chicago	62	0	62
	Houston	57	0	57
	St. Louis	57	0	57
	New York	35	20	55
	Hyattsville	54	0	54
	Buffalo	51	0	51
	Dallas	51	0	51
	Philadelphia	46	5	51
	New York	50	0	50
	New Orleans	48	0	48
	Detroit	47	0	47
	Chicago	42	5	47

Figure 3. Top Drivers of Interest. (Crash involved driver is highlighted in red.)

Drivers of Interest are scheduled for refresher training. Greyhound also monitors the list for improvement.

2.0 Greyhound Driver

NTSB investigators made numerous attempts to interview the Greyhound driver. The driver was represented by two attorneys one criminal and one civil. The criminal attorney informed the NTSB that he was agreeable to an interview however that interview has been postponed due to the medical condition of the driver. That interview remained pending at the writing of this report.

2.1.1 Driver Qualification File

Greyhound provided a driver qualification (DQ) file for the subject driver. The DQ file contained an application for employment, a motor vehicle report (MVR), a copy of the driver's license, annual review of driving record, DOT medical certificate, and previous employment background check. The DQ file met the regulatory requirements under 49 CFR 391.51.

2.1.2 Greyhound Driver's License

The 59-year-old Greyhound driver involved in this crash held a valid MO Class B CDL with an issue date of December 2020 and an expiration date of June 2026. The CDL reflected a "P" for passenger endorsement and indicated one restriction for corrective lenses. According to the driver's Commercial Driver Licensing Information System (CDLIS) report and Missouri MVR there were no convictions, accidents, or withdrawals.³²

2.1.3 Greyhound Driver's Employment History

The Greyhound driver was originally hired April 16, 2018. The driver had a break in service and took a leave of absence from November 3, 2021 to April 28, 2022 for a "family emergency." Prior to working at Greyhound, the driver worked various non-driving positions. He held two previous DOT regulated driving positions which involved driving a bus in 2016 and from 2008 to 2014. For additional information see Table 2.

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³² The Missouri MVR was a three-year history.

Table 2. Greyhound Bus Driver Work History

Employment	Start date	End date	Position	Reason for leaving
Greyhound	4/28/2022	7/12/2023	Driver	N/A
Amazon	11/2021	4/2022	Package handler	unknown
Greyhound	4/16/2018	11/3/2021	Driver	Family Emergency
Hilton Grand Vacation	10/31/2017	1/18/2018	Sales representative	Unknown
C3	8/31/2016	6/30/2017	Sales representative	Laid off
Bell Transportation	6/30/2016	9/29/2016	Limo/Bus driver	New employment
Manpower	5/31/2016	11/29/2017	Parking attendant	New employment
Unemployed	12/31/2015	6/29/2016	N/A	N/A
Officer's Funeral Home	7/31/2014	1/30/2016	Driver	Moved to Las Vegas
Helping Hands	12/31/2008	N/A	Driver	New employment
Bi-State Metro	1/31/2008	12/30/2014	Bus driver	Laid off

2.2 DOT Medical Certificates

According to Greyhound officials, all drivers were required to utilize a company approved medical facility for DOT physicals. Greyhound had a national contract with Concentra which is used throughout the US with the exception of a few locations.³³ In those markets where Concentra is not available, drivers must report to an alternate Greyhound approved medical facility. At the time of the crash the driver held a valid 1-year medical certificate with an issue date of April 2023 and expiration date of April 2024. The restricted medical certificate was due to Hypertension and sleep apnea. The medical examiner (ME) that performed the driver's last DOT medical certification was listed on the approved FMCSA medical registry.

2.3 DOT Drug Testing

Greyhound has an established random drug and alcohol testing program. The carrier had used Hire Right³⁴ as their drug testing vendor but recently switched to First Advantage as their DOT drug testing provider and medical review officer (MRO).³⁵ The Greyhound driver had two pre-employment and four random DOT drug tests on file that were all negative. The dates of the tests and their disposition is detailed in Table 3.

³³ Concentra - is a national medical care facility that specializes in Occupational Medicine, providing DOT medical exams, DOT drug testing, workplace injury care, and other medical services. For additional information see: [Concentra Occupational Health - Concentra](#)

³⁴ Hire Right - A global provider of background checks, health and DOT drug screening services. For additional information see: [Employment Background Checks, Background Screening | HireRight](#)

³⁵ For additional information see: [Pre-Employment Drug Testing Services | First Advantage \(fadv.com\)](#)

Table 3. Greyhound Driver Drug Test History

Date	Reason	Type of Test	Result
2/16/2018	Pre-employment	Drug	Negative
12/17/2018	Pre-employment	Drug	Negative
6/07/2019	Random	Drug	Negative
6/07/2019	Random	Alcohol	Negative
11/04/2019	Random	Alcohol	Negative
11/25/2019	Random	Drug	Negative
7/10/2020	Random	Drug	Negative
11/10/2020	Random	Drug	Negative
4/26/2022	Pre-employment	Drug	Negative
4/11/2023	Random	Drug	Negative

Because the driver was transported to the hospital and received medical treatment, Greyhound was unable to conduct a DOT post-crash drug test.³⁶ The Illinois State Police did however obtain blood samples from the driver at the hospital for testing. Results of the toxicology results were negative. NTSB also sent blood samples to the Federal Aviation Administration’s (FAA) Office of Aerospace Medicine. Those results also tested negative for illicit drugs. See the *Human Performance Group Chairs Factual Report* for additional information.

3.0 Driver’s Route History

According to the driver’s logs and payroll records he had been operating three routes for the past several months prior to the crash. The three routes were:

- Route - St. Louis, MO to Abeline, KS- layover - 6 hours / 404 miles.
- Route - St. Louis, MO to Nashville, TN - layover - 4 hours 35 min / 311 miles.
- Route - St. Louis, MO to Indianapolis, IN - 3 hours 44 min / 244 miles.
- Route - Indianapolis, IN to St. Louis, MO - 3 hours 44 min / 244 miles.

NTSB investigators reviewed the driver’s electronic logging device (ELD) logs for the past 30 days before the crash.³⁷ The driver’s route history, total duty hours and miles were documented in Table 4.

³⁶ Under §382.303 states that post-accident drug and alcohol testing are to be performed:
(a) As soon as practicable following an occurrence involving a commercial motor vehicle operating on a public road in commerce, each employer shall test for alcohol for each of its surviving drivers:
(1) Who was performing safety-sensitive functions with respect to the vehicle, if the accident involved the loss of human life; or
(2) Who receives a citation within 8 hours of the occurrence under State or local law for a moving traffic violation arising from the accident, if the accident involved:
(i) Bodily injury to any person who, as a result of the injury, immediately receives medical treatment away from the scene of the accident; or
(ii) One or more motor vehicles incurring disabling damage as a result of the accident, requiring the motor vehicle to be transported away from the scene by a tow truck or other motor vehicle.

³⁷ See Human Performance Attachment - Bus Driver Logs.

Table 4. Driver's Route History 30 Days Prior Crash

Date	Origin	Destination	On Duty hours	Miles
6/13	NA	NA	Off Duty	NA
6/14	St. Louis, MO	Abilene, KS	8:39	394
6/15	Abilene, KS	St. Louis, MO	7:46	391
6/16	St. Louis, MO	Nashville, TN	8:37	316
6/17	Nashville, TN	St. Louis, MO	8:40	327
6/18	St. Louis, MO	Indianapolis, IN	10:59	245
6/19	Indianapolis, IN	St. Louis, MO	3:28	199
6/20	NA	NA	Off Duty	NA
6/21	St. Louis, MO	Abilene, KS	9:23	394
6/22	Abilene, KS	St. Louis, MO	7:23	391
6/23	St. Louis, MO	Nashville, TN	9:18	409
6/24	Nashville, TN	St. Louis, MO	8:03	325
6/25	St. Louis, MO	Indianapolis, IN	7:03	244
6/26	Indianapolis, IN	St. Louis, MO	3:07	142
6/27	NA	NA	Off Duty	NA
6/28	St. Louis, MO	Indianapolis, and return to St. Louis	13:59	481
6/29	St. Louis, MO	Nashville, TN	7:50	314
6/30	Nashville, TN	St. Louis, MO	7:12	179
7/1	St. Louis, MO	Indianapolis, IN	10:39	483
7/2	Off Duty	NA	Off Duty	NA
7/3	Off Duty	NA	Off Duty	NA
7/4	St. Louis, MO	Nashville, TN	6:15	314
7/5	Nashville, TN	St. Louis, MO	7:09	314
7/6	Off Duty	NA	NA	NA
7/7	St. Louis, MO	Indianapolis, IN and return to St. Louis, MO	5:29	286
7/8	Jenkinsville, IN	St. Louis, MO	8:11	197
7/9	Off Duty	NA	NA	NA
7/10	Off Duty	NA	NA	NA
7/11	St. Louis, MO	Indianapolis, IN	11:08	339
7/12	Indianapolis, IN	St. Louis, MO **CRASH**	10:43	110

3.1 Route Details on Day of Crash

At the time of the crash, the Greyhound driver had been operating the route from St. Louis to Indianapolis and return to St. Louis, since May 2023 (approximately 3 months). On July 11, 2023, the day before the crash, the driver left the Greyhound bus station in St. Louis, MO with bus # 87076 and started the route eastbound on I-70 towards Indianapolis, IN. The driver made a scheduled stop in Effingham, IL at 3:09 p.m. and made another scheduled stop at West Terre Haute, IN at 4:40 p.m. The driver continued eastbound on I-70 and made the final scheduled stop at the Indianapolis

bus station. The driver then had a 4-hour scheduled layover in Indianapolis which began at 5:54 p.m. and lasted until 10:22 p.m. For additional information see Figure 4.

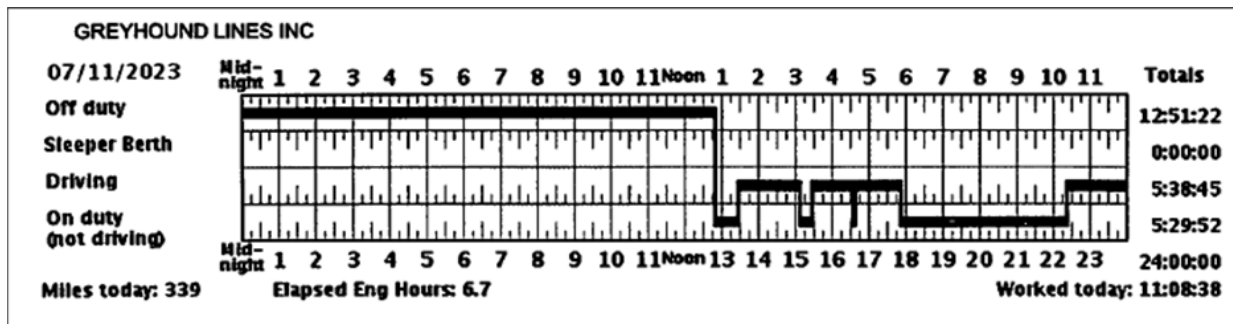


Figure 4. Greyhound Driver's Log showing St. Louis to Indianapolis with layover.

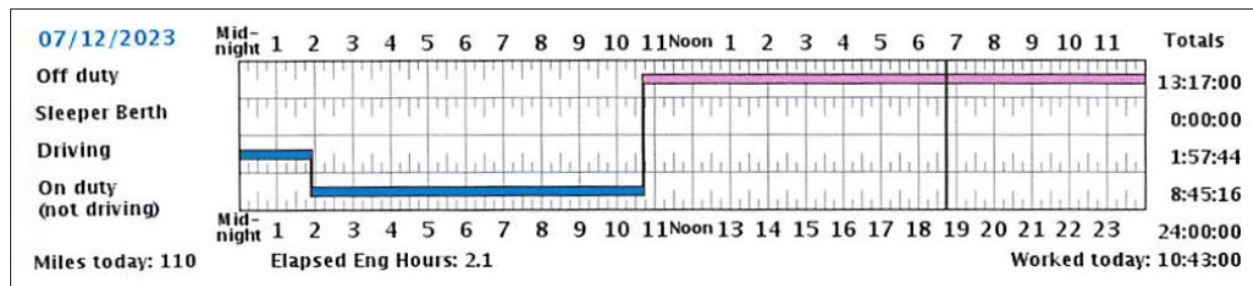


Figure 5. Greyhound Driver's Log Showing Driver Driving on 7/12/2023.

After completing his layover in Indianapolis, IN at 10:30 pm the driver started the route with bus # 86245 to make the return trip from Indianapolis, IN back to the St. Louis bus terminal. For additional details see Figure 5. The route was classified as an "express route" and did not have any scheduled stops. At approximately 1:48 a.m. however, the driver departed I-70 into the Silver Lake rest area and struck three parked tractor-semitrailers. The driver had been underway approximately 4 hours and traveled approximately 209 miles when the crash occurred. A review of the driver's ELDs for the previous two months indicated the driver had not made an unscheduled stop at the Silver Lake rest area. The Silver Lake rest area was approximately 33.3 miles or 35 minutes away from the final destination at the Greyhound bus station in St. Louis, MO. For additional details see Figure 6. The approximate crash location is indicated by a red marker.

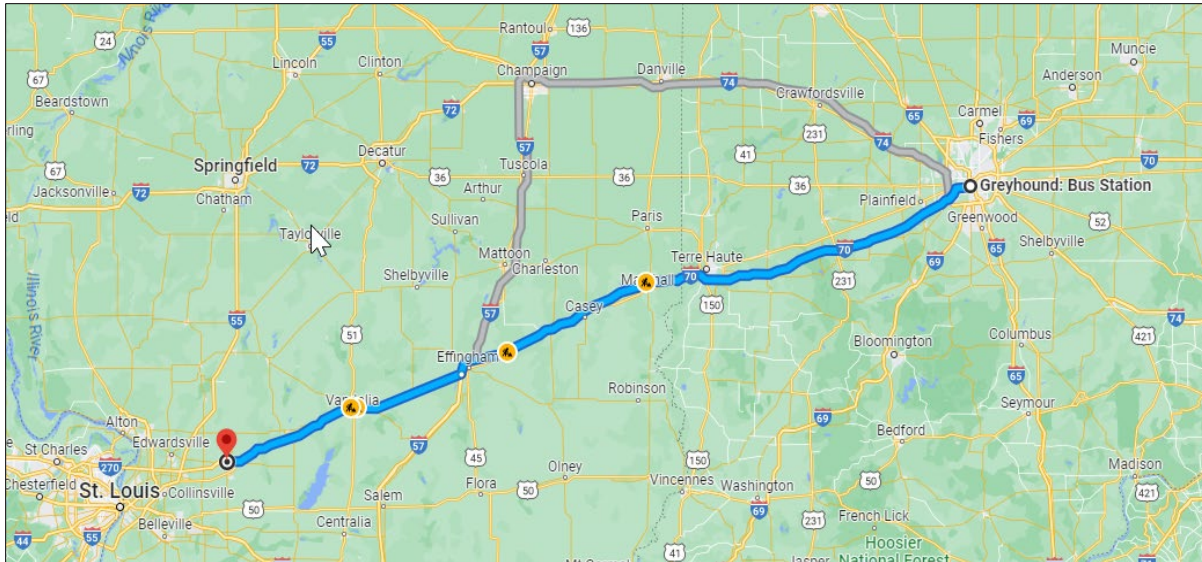


Figure 6. Driver's Route from Indianapolis to St. Louis. (Source: Google Maps)

3.2 Route Layovers

According to Greyhound officials, the company paid for hotels during layover periods. According to Greyhound, the driver had routinely used the designated hotels for his layovers during his route schedule. Greyhound provided a history of the driver’s usage of the company paid hotels for the 30 days before the crash. See Table 5 for more details.

Table 5. History of Driver Hotel Stays Provided by Greyhound

Check in Date	Hotel	City	State
6/5/2023	17 West Ascend Hotel	Tulsa	Ok
6/8/2023	Super 8 Motel	Abilene	KS
6/16/2023	Hillside Crossing Hotel	Nashville	TN
6/21/2023	Super 8 Motel	Abilene	KS
6/23/2023	Four Points	Nashville	TN
6/25/2023	Hilton Garden Inn	Indianapolis	IN
6/26/2023	Hilton Garden Inn	Indianapolis	IN
6/29/2023	Four Points	Nashville	TN
7/4/2023	Four Points	Nashville	TN

Greyhound provided drivers operating St. Louis to Indianapolis route a room at the Hilton Garden Inn in downtown Indianapolis. Additionally, Greyhound also provided the driver access to the company’s Uber account if the driver did not want to walk the 0.7 miles from the bus station to the hotel. The NTSB obtained a copy of the records from the Hilton Garden Inn for the number of stays for the subject driver for the past 60 days prior to the crash. According to hotel records, the driver did not check

into the hotel on July 11, 2023 (the night before the crash) during his layover period. The driver's last stay at the Indianapolis hotel was on June 26, 2023.³⁸

Greyhound officials stated that it was not a requirement for drivers to stay at the designated hotel, and the driver could also use the driver's lounge at the Indianapolis bus terminal to spend his off-duty period. The NTSB verified with the Greyhound staff at the Indianapolis terminal that the driver did not stay in the driver's lounge during his layover period for the night of July 11, 2023.

3.3 Driver's Hour of Service

Federal regulations restrict the number of hours a driver may operate while transporting passengers. Under §395.5 the maximum driving time for passenger-carrying vehicle states:

(a) No motor carrier shall permit or require any driver used by it to drive a passenger-carrying commercial motor vehicle, nor shall any such driver drive a passenger-carrying commercial motor vehicle:

- (1) More than 10 hours following 8 consecutive hours off duty; or
- (2) For any period after having been on duty 15 hours following 8 consecutive hours off duty.

(b) No motor carrier shall permit or require a driver of a passenger-carrying commercial motor vehicle to drive, nor shall any driver drive a passenger-carrying commercial motor vehicle, regardless of the number of motor carriers using the driver's services, for any period after—

- (1) Having been on duty 60 hours in any 7 consecutive days if the employing motor carrier does not operate commercial motor vehicles every day of the week or
- (2) Having been on duty 70 hours in any period of 8 consecutive days if the employing motor carrier operates commercial motor vehicles every day of the week.

3.3.1 Greyhound Driver's HOS

NTSB investigators reviewed the driver's hours of service (HOS). Greyhound used an electronic logging device (ELD) system by Saucon.³⁹ The driver utilized his company issued cell phone to log into the Saucon App to start his daily record of duty status. The Saucon App was password protected and required a driver specific identification code. The driver's cell phone also conducted other functions that included scanning passenger tickets and starting the bus.

A review of the driver's ELD indicated that the driver had a 10-hour violation on July 8, 2023, however the driver annotated that the driver encountered "adverse conditions" due to a non-related accident and traffic delay.⁴⁰ No other HOS violations

³⁸ See Motor Carrier Attachment - Hilton Garden Inn Room Stays for Subject Driver.

³⁹ For more information see: [Saucon | Home \(saucontds.com\)](https://saucon.com)

⁴⁰ Under 49 CFR 395.1 (b) *Adverse driving conditions*. Except as provided in [paragraph \(h\)\(3\)](#) of this

were identified for the crash involved driver. A summary of the driver’s HOS for the previous 7 days is detailed in Table 6.

Table 6. Drivers Hours of Service

Date	Driving	On duty not driving	Total hours	location
7/5/2023	5:29	1:40	7:09	Nashville, TN
7/6/2023	0	0	0	National City, IL
7/7/2023	4:54	0:35	5:29	National City, IL
7/8/23	6:04	2:06	8:10 (10 violation) ⁴¹	Jenkinsville, IN
7/9/23	0	0	0	N/A
7/10/23	0	0	0	N/A
7/11/23	5:38	5:29	11:07	National City, IL
7/12/23	1:57	8:45	10:42 (crash) ⁴²	Indianapolis, IN

3.4 Greyhound Driver Crash History

According to personnel records in addition to this crash, the driver had four additional crashes involving a Greyhound bus; two were classified as “preventable” and two were “non-preventable.” A summary of those crashes is detailed in Table 7.

Table 7. Greyhound Driver Crash History

Date	Description	Fatalities /Injuries	Preventable Yes/No
5/19/2018	Rear end crash with tractor trailer	8 injured	Yes
8/02/2019	Bus turned into construction barrier	None	Yes
3/11/2020	Truck struck bus hit mirror	None	No
5/02/2022	Other vehicle struck bus	None	No
7/12/2023	Rear end crash with tractor trailers	3 fatal / 14 injured	Not determined

section, a driver who encounters adverse driving conditions, as defined in [§ 395.2](#), and cannot, because of those conditions, safely complete the run within the maximum driving time or duty time during which driving is permitted under [§ 395.3\(a\)](#) or [§ 395.5\(a\)](#) may drive and be permitted or required to drive a commercial motor vehicle for not more than two additional hours beyond the maximum allowable hours permitted under [§ 395.3\(a\)](#) or [§ 395.5\(a\)](#) to complete that run or to reach a place offering safety for the occupants of the commercial motor vehicle and security for the commercial motor vehicle and its cargo.

⁴¹ On July 7, 2023 the driver drove 4:45 hrs. without obtaining 8 consecutive hours off duty. The driver continued to drive on July 8, 2023 for an additional 6:04 hours. That would constitute a 10- hour violation under §395.5, however because the driver recorded on his ELD “Traffic accident use of adverse condition road closed” which started at 4:39 a.m. hours, the driver was not in violation. For additional details, see Human Performance Attachment: Greyhound Driver Logs.

⁴² The driver stopped driving at 1:48 a.m. when the crash occurred. The driver’s ELD however continued to record On-Duty time because he was injured in the crash and transported to the hospital.

The first preventable crash took place May 19, 2018. The driver was driving a Greyhound bus enroute from Los Angeles, CA to Las Vegas, NV. The driver was traveling northbound on Interstate 15 in San Bernardino County, CA, when the bus rear ended a tractor-trailer that had slowed due to traffic conditions. According to the California Highway Patrol (CHP) Traffic Collision Report, the driver was in violation of California Vehicle Code 22350 which states that “no person shall drive a vehicle upon a highway at a speed greater than is reasonable or prudent having due regard for weather, visibility, the traffic on, and the surface and width of highway, and in no event at a speed which endangers the safety of persons or property.” In the driver condition section of the CHP crash report, it listed the Greyhound driver as being “fatigued” and “driving at an unsafe speed for traffic conditions.”⁴³ According to the CHP Traffic Collision Report the driver was not cited for these violations.

The second preventable crash took place August 2, 2019. The driver was operating a Greyhound bus that was enroute from Pittsburgh, PA to New York, NY. The driver attempted to make a turn into the Lincoln Tunnel but made a right turn onto Ramon Street, a dead-end street. While attempting a maneuver to turn around, the driver stuck a concrete construction barrier causing damage to the bus.⁴⁴

3.5 Driver’s Disciplinary File

The NTSB reviewed the Greyhound driver’s disciplinary infractions since his hire date in 2018.⁴⁵ The driver's disciplinary file contained 11 written reprimands for various infractions.⁴⁶ A disciplinary infraction included: preventable crashes, tardiness, DOT violations, DriveCam events, and violations of the Greyhound safety policies, driver handbook, or union contract.

Greyhound used a form called HR-02 to record disciplinary infractions as well as other human resource data. A review of the HR-02 form for the subject driver however listed only three entries, one for 2018 and two for 2019 (Figure 7).

⁴³ See Human Performance Attachment - 2018 Traffic Collision Report.

⁴⁴ See Motor Carrier Attachment - Greyhound Driver Disciplinary Actions.

⁴⁵ Ibid.

⁴⁶ Some of the written reprimands contained more than one infraction.

Table 8. List of Driver Infractions 2018-2021.

Date of Offense	Event /Offense	Written Reprimand	Recorded on HR-02	Description of violation / supplemental information
5/17/2018 ⁴⁷	DriveCam	Missing	Yes	No reprimand but documented on HR02
5/19/2018	Crash	Missing	No	No reprimand and not recorded on HR02
1/25/2019	Unknown	Missing	Yes	No reprimand but recorded on HR02
2/17/2019	DriveCam	Missing	Yes	No reprimand but recorded on HR02
3/09/2019	Speeding	Yes	No	Speeding - 74 mph in 55 mph
3/21/2019	Speeding	Yes	No	Speeding - 77 mph in 55 mph (driver received warning possible termination)
7/19/2019	Speeding	Yes	No	Speeding - 70 mph in 55 mph
8/2/2019	Crash	Yes	No	Preventable crash
11/30/2019	HOS violation	Yes	No	HOS violation – failed to take required 8 hours off duty
1/07/2020 – 1/14/2020	Late departures	Yes	No	83% departure rate and 75% departure rate
1/17/2020	Drive cam	Yes	No	Following distance violation
1/24/2020	Performance	No	No	25% route delayed
6/2/2020	Speeding	Yes	No	Speeding - 78 mph in 65 mph
6/20/2020	Speeding	Missing	No	Missing document ** see next entry
8/2/2020	Speeding	Yes	No	Speeding - 69 mph in 55 mph – States driver was also counseled on 6/20/2020
10/20/2020	Speeding	Yes	No	Speeding - 71 mph in 60 mph
9/14/2021	Speeding	No	No	Speeding - 75 mph in 60 mph
2/27/2021	Speeding	Yes	No	Speeding - 68 mph in 55 mph
3/4/2021	Speeding	Yes	No	Speeding - 72 mph in 60 mph
9/14/2021	Speeding	No	No	Speeding - 75 mph in 60 mph

Additionally, the HR-02 form was missing all written disciplinary actions that occurred after February 2019. The NTSB questioned Greyhound officials if the driver received a written reprimand for the 2018 crash, they acknowledged that he did however, that reprimand was missing from his disciplinary file. The NTSB also requested for any disciplinary records for the subject driver for the past 365 days before the crash, however, could not locate any.

3.5.1 Driver's DriveCam History

In addition to the DriveCam events listed in Figure 7, the NTSB obtained the DriveCam records for the subject driver for the past 365 days before the crash.⁴⁸ According to Greyhound records, the driver had a total of 71 DriveCam events in the past year. As mentioned in the previous section, Greyhound could not produce any records of driver counseling for the subject driver after March 4, 2021. It should be noted that the last DriveCam event was recorded on July 7, 2023, five days before the crash. A summary of the DriveCam events for the past 90 days before the crash are detailed in Figure 8.

⁴⁷ This date taken from the HR002 form, which is not legible. Unknown if date was 17th, 18th or 19th.

⁴⁸ See Motor Carrier Attachment - Greyhound Driver's DriveCam Events July 12, 2022 - July 31, 2023.

Driver	Group	Date	Time	Score	Status	Trigger	Behaviors
Raymond C Paradise	St. Louis	7/7/2023	12:15:12 PM	5	Face-To-Face	Following Distance	Following Distance: < 1 second
Raymond C Paradise	St. Louis	7/4/2023	3:13:20 AM	5	Face-To-Face	Rolling Stop	Failed to Stop
Raymond C Paradise	St. Louis	6/21/2023	1:49:26 AM	0	Resolved	Lens Obstruction	Lens Obstruction
Raymond C Paradise	St. Louis	6/16/2023	10:01:13 AM	4	Resolved	Following Distance	Following Distance: ≥ 1 sec to < 2 sec
Raymond C Paradise	St. Louis	6/9/2023	10:21:08 AM	4	Resolved	Critical Distance	Following Distance: ≥ 1 sec to < 2 sec
Raymond C Paradise	St. Louis	6/9/2023	8:03:21 AM	4	Resolved	Critical Distance	Following Distance: ≥ 1 sec to < 2 sec
Raymond C Paradise	St. Louis	6/7/2023	11:17:45 PM	5	Resolved	Speeding	Speed Policy Violation
Raymond C Paradise	St. Louis	6/6/2023	6:19:58 PM	10	Resolved	Speeding	Posted Speed Violation,Speed Policy Violation
Raymond C Paradise	St. Louis	5/29/2023	8:19:43 PM	10	Resolved	Speeding	Posted Speed Violation,Speed Policy Violation
Raymond C Paradise	St. Louis	5/29/2023	2:30:17 PM	5	Resolved	Rolling Stop	Failed to Stop
Raymond C Paradise	St. Louis	5/19/2023	1:46:56 PM	3	Resolved	Handheld Device	Handheld Device
Raymond C Paradise	St. Louis	5/19/2023	9:44:32 AM	5	Resolved	Speeding	Speed Policy Violation
Raymond C Paradise	St. Louis	5/19/2023	8:34:12 AM	4	Resolved	Following Distance	Following Distance: ≥ 1 sec to < 2 sec
Raymond C Paradise	St. Louis	4/19/2023	5:15:37 PM	10	Resolved	Speeding	Posted Speed Violation,Speed Policy Violation
Raymond C Paradise	St. Louis	4/18/2023	11:19:48 AM	5	Resolved	Rolling Stop	Failed to Stop
Raymond C Paradise	St. Louis	4/17/2023	7:40:59 PM	5	Resolved	Rolling Stop	Failed to Stop
Raymond C Paradise	St. Louis	4/16/2023	9:19:42 AM	4	Resolved	Following Distance	Following Distance: ≥ 1 sec to < 2 sec
Raymond C Paradise	St. Louis	4/16/2023	8:53:17 AM	10	Resolved	Speeding	Posted Speed Violation,Speed Policy Violation
Raymond C Paradise	St. Louis	4/14/2023	6:19:43 AM	10	Resolved	Speeding	Posted Speed Violation,Speed Policy Violation
Raymond C Paradise	St. Louis	4/12/2023	6:59:10 AM	5	Resolved	Rolling Stop	Failed to Stop
Raymond C Paradise	St. Louis	4/11/2023	2:35:58 AM	0	Resolved	Other	Collision
Raymond C Paradise	St. Louis	4/5/2023	10:59:34 AM	4	Resolved	Following Distance	Following Distance: ≥ 1 sec to < 2 sec
Raymond C Paradise	St. Louis	4/3/2023	7:10:11 AM	4	Resolved	Following Distance	Following Distance: ≥ 1 sec to < 2 sec

Figure 8. DriveCam Events 90 days before the Crash.

3.5.2 DriveCam Events Summarized

A review of the DriveCam events indicates that the driver had multiple reoccurring events or triggers over the past year. The most frequent critical events included:

- Rolling stop - 20 events
- Following distance - 16 events
- Speeding - 12 events
- Braking - 7 events
- Critical distance - 3 events

3.6 Maintenance

The subject vehicle involved in this crash was a 2014 Prevost motorcoach, unit # 86245. The carrier provided maintenance records for unit # 86245, that included repairs, service records, and annual inspection reports. Greyhound also provided 90 days of driver vehicle inspection reports (DVIRs) and inspection reports of push out windows, emergency doors/hatches, and emergency door marking lights. The most recent federal annual inspection for the subject bus was recorded on April 4, 2023. The Greyhound maintenance program met the requirements under §396.3.⁴⁹ For additional information regarding the maintenance of the subject vehicle see the *Vehicle Factors Group Chair Report* in the docket for this investigation.

⁴⁹ For more information see: <https://www.ecfr.gov/current/title-49/subtitle-B/chapter-III/subchapter-B/part-396/section-396.3>

4.0 Federal Oversight

According to the FMCSA Motor Carrier Management Information System (MCMIS) the carrier's latest FMCSA MCS-150 was filed on April 27, 2023, and reflected annual mileage of 860,572,343 miles.⁵⁰

In 2010, the FMCSA introduced the Compliance, Safety, Accountability (CSA) system as an initiative to improve large truck and bus safety and ultimately reduce crashes, injuries, and fatalities related to CMVs. It introduced a new enforcement and compliance model that allows the FMCSA and its state partners to contact a larger number of carriers earlier in order to address safety problems before crashes occur. Along with CSA, the FMCSA also rolled out a new operational model called the Safety Measurement System (SMS), which replaced its predecessor, known as the SAFESTAT model. SMS uses motor carrier's data from roadside inspections, (including all safety-based violations), state-reported crashes, and the Federal Motor Carrier Census to quantify performance in the following Behavior Analysis and Safety Improvement Categories (BASICS).

CSA BASICS

- **Unsafe Driving** – Operation of CMVs by drivers in a dangerous or careless manner. *Example violations:* Speeding, reckless driving, improper lane change, and inattention. (Federal Motor Carrier Safety Regulations (FMCSRs) 49 CFR Parts 392 and 397)
- **Hours-of-Service (HOS) Compliance** – Operation of CMVs by drivers who are ill, fatigued, or in non-compliance with the HOS regulations. This BASIC includes violations of regulations pertaining to records of duty status (RODS) as they relate to HOS requirements and the management of CMV driver fatigue *Example violations:* false HOS RODS and operating a CMV while ill or fatigued. (FMCSR Parts 392 and 395)
- **Driver Fitness** – Operation of CMVs by drivers who are unfit to operate a CMV due to lack of training, experience, or medical qualifications. *Example violations:* Failure to have a valid and appropriate commercial driver's license (CDL) and being medically unqualified to operate a CMV. (FMCSR Parts 383 and 391)
- **Controlled Substances and Alcohol** – Operation of CMVs by drivers who are impaired due to alcohol, illegal drugs, and misuse of prescription or over-the-counter medications. *Example violations:* Use or possession of controlled substances/alcohol. (FMCSR Parts 382 and 392)

⁵⁰ See Motor Carrier Attachment - Greyhound MCS-150.

- **Vehicle Maintenance** – Failure to properly maintain a CMV and/or properly prevent shifting loads. *Example violations:* Brakes, lights, and other mechanical defects, failure to make required repairs, and improper load securement. (FMCSR Parts 392, 393, and 396)
- **Hazardous Materials (HM) Compliance** – Unsafe handling of HM on a CMV. *Example violations:* Release of HM from package, no shipping papers (carrier), and no placards/markings when required. (FMCSR Part 397 and Hazardous Materials Regulations Parts 171, 172, 173, 177, 178, 179, and 180)
- **Crash Indicator** – Histories or patterns of high crash involvement, including frequency and severity based on information from state-reported crashes.

A carrier's measurement for each BASIC depends on the following:

- The number of adverse safety events (violations related to that BASIC or crashes).
- The severity of violations or crashes.
- When the adverse safety events occurred (more recent events are weighted more heavily).

After a measurement is determined, the carrier is then placed in a peer group (i.e., other carriers with similar numbers of inspections and carrier size). Percentiles from 0 to 100 are determined by comparing the BASIC measurements of the carrier to the measurements of other carriers in the peer group. A percentile of "100" indicates the worst performance.


The FMCSA established threshold levels that would require agency action. Unsafe Driving, HOS, and Crash BASICs were set at lower thresholds because of their inherent risk. Additionally, passenger and hazmat carriers have lower thresholds than all other carriers because of their inherent risk. The table below represents the thresholds set by the FMCSA that help prioritize agency intervention and resource management.^{51/52} Greyhound falls under the For-Hire passenger criteria. Table 9 summarizes the FMCSA BASICs thresholds.

⁵¹ Retrieved from: www.fmcsa.dot.gov.

⁵² FMCSA is undergoing an overhaul of SMS and has proposed changes to the thresholds in a Request for Comments titled, "Revised Carrier Safety Measurement System," published at 88 Federal Register 9954 on February 15, 2023.

Table 9. FMCSA BASICs Thresholds.

BASIC	Passenger Carrier	HM Carrier	All other Motor Carriers
Unsafe Driving, HOS, Crash	50%	60%	65%
Driver Fitness, Drug & Alcohol, Maintenance	65%	75%	80%
HM	80%	80%	80%

On a carrier’s SMS profile, which is publicly available on the Safer website, an alert symbol  is displayed in any designated BASIC where the carrier has exceeded the corresponding threshold.⁵³ At the time of the crash, the MCMIS Carrier Profile showed Greyhound had one BASIC in alert status - Crash at 68%. For additional information see Figure 9.

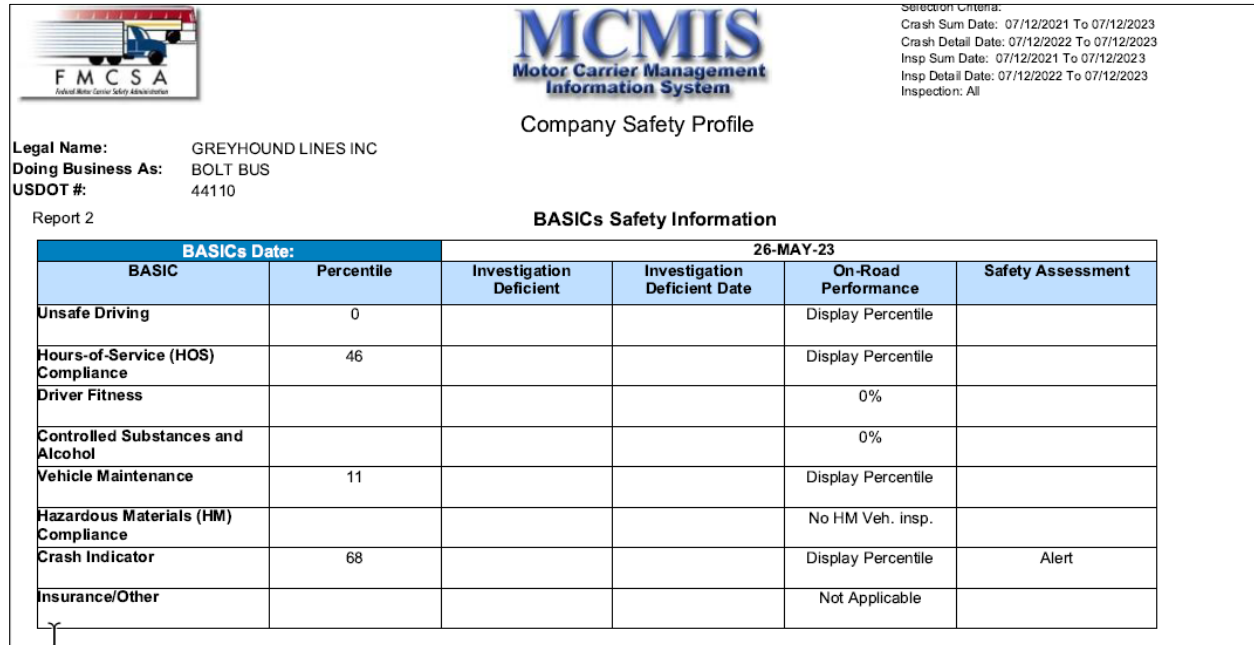


Figure 9. Greyhound BASICs.

Since 1989 Greyhound has had 34 compliance reviews (CRs). The last CR was conducted was on June 9, 2023, and resulted in a Satisfactory safety rating.⁵⁴ FMCSA had an investigator present throughout the on-scene phase of the investigation and

⁵³ FMCSA BASIC information publicly available for passenger and Hazardous Material carriers only. See additional information at the FMCSA Safer website: <http://safer.fmcsa.dot.gov/CompanySnapshot.aspx>.

⁵⁴ Evaluate safety fitness and assign one of three safety ratings (*satisfactory*, *conditional*, or *unsatisfactory*) to motor carriers operating in interstate commerce. This process conforms to [49 CFR 385.5](#), Safety fitness standard, and [§ 385.7](#), Factors to be considered in determining a safety rating.

conducted a post-crash driver investigation. That investigation did not identify any violations and no enforcement action.

4.1 Greyhound Crashes

According to MCMIS Greyhound had 33 crashes in calendar year 2022. Of the 33 crashes, Greyhound did not have any (zero) fatal crashes, however, did have 21 injury crashes. For additional information see Figure 10.

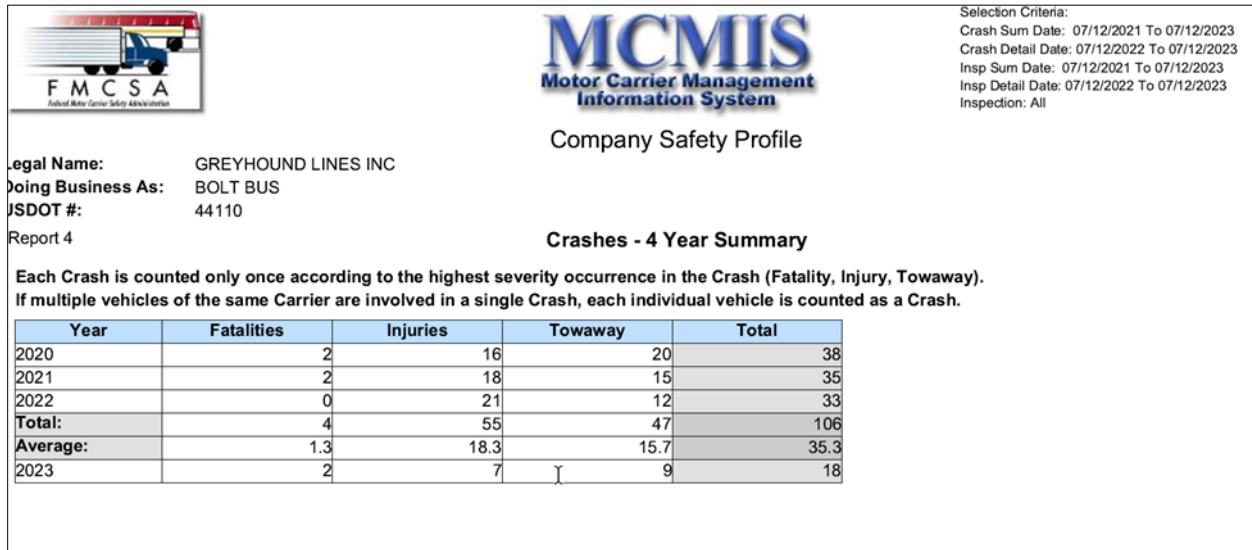


Figure 10. Greyhound MCMIS Crash History.

5.0 Previous NTSB Investigation

In a previous investigation, San Jose, CA (HWY16MH005) the NTSB investigated a crash involving a Greyhound bus. On January 19, 2016, a 2014 MCI bus operated by Greyhound Lines that was occupied by a driver and 21 passengers. The bus was traveling north on US Highway 101, near San Jose, CA. The weather conditions were dark, with moderate to heavy rain. At the US 101 and State Route 85 interchange the bus entered a 990-foot unmarked gore area, collided with a crash attenuator and concrete barrier. Following the impact, the bus traveled another 65 feet, rolled 90 degrees, and came to rest on its right side atop the concrete barrier, straddling two lanes of traffic. As a result of the crash, two passengers were ejected and died, and the driver and 13 passengers were injured.⁵⁵

⁵⁵ For more information see: [Motorcoach Collision With Crash Attenuator in Gore Area, US Highway 101, San Jose, California, January 19, 2016 \(ntsb.gov\)](https://www.nts.gov/press-releases/motorcoach-collision-with-crash-attenuator-in-gore-area-us-highway-101-san-jose-california-january-19-2016)

6.0 NTSB Meeting with Greyhound /Flix North America

On January 18, 2024, senior managers from the NTSB met with executives from Greyhound and Flix North America to provide an update on the Highland, IL crash investigation and ask follow up questions related to the investigation.

During this investigation it was discovered that the crash-involved driver's personnel files were missing disciplinary records and written reprimands. Greyhound officials stated that the new system of converting the DQ files to an electronic file did not include the driver's disciplinary records. NTSB investigators asked Greyhound officials about the driver's missing disciplinary records, and they stated that some the driver's files were either lost or compromised during the relocation of the new St. Louis terminal which occurred after the Flex acquisition.

Similarly, NTSB investigators questioned Greyhound officials about the 71 DriveCam events that the driver had incurred in the 365 days before the crash. NTSB investigators questioned Greyhound how they were addressing recurring unsafe driver behavior, to include effective remediation of behavior and establishment of suspension of thresholds for termination. Greyhound officials stated the company had instituted new policies for addressing DriveCam events such as distracted driving or cell phone use would be grounds for termination. Greyhound officials further stated that when the company first implemented the DriveCam system, it was negotiated with the Union that the company would not use a punitive point system to terminate drivers, and that the DriveCam system would focus on coaching rather than disciplinary action.

During the meeting, the NTSB requested for the following documents:

- Missing disciplinary records for subject driver.
- Provide all DriveCam events for subject driver.
- Provide all coaching DriveCam events for subject driver.
- Provide a copy of the union contract.
- Copy of all crashes for subject driver.

Greyhound provided the requested documents. NTSB investigators asked if Greyhound had any new policies addressing driver oversight. Greyhound officials stated that they had instituted a new policy regarding rehiring drivers that had left the company. The new policy required all new rehires would have to be approved by the Greyhound safety office. Under this new procedure the safety office would 1) review their reason for leaving, 2) Review their accident history, and 3) review the driver's DriveCam event history. The safety department would either recommend or deny the application moving forward.

7.0 Trucks Parked Adjacent to Rest Area Exit Ramp

During the crash sequence, the bus collided with three truck-tractors that were parked on the shoulder of the Westbound I-70 exit ramp leading into the Silver Lake rest area. A summary of the commercial motor vehicles (CMVs) that were struck by the bus and their corresponding USDOT and driver information follows:

Vehicle 2 - 2019 Freightliner truck-tractor in combination with 2024 Vanguard semi-trailer. The CMV was owned and operated by MZ Cargo, Inc. out of Mason OH. The carrier has been assigned USDOT 3775005 and was classified at the time of the crash as a New Entrant.⁵⁶ The carrier had a Safety Audit on May 17, 2023 and received a "passing" score. The carrier had one BASIC in alert status in Unsafe Driving at 89%. The truck driver was in the sleeper berth at the time of the crash. The driver held a valid TN Class A CDL with an issue date of October 2020 and expiration date August 2028. The driver also held a valid DOT medical certificate with an issue date of October 2022 and expiration date of October 2024. The driver reported to the Illinois State Police (ISP) that he entered the rest area at 10:30 p.m. The driver's ELD collaborated his interview with the ISP.

Vehicle 3 - 2000 Kenworth truck-tractor in combination with a 2007 Benson semi-trailer. The combination unit was owned and operated by Richard Wolfe Trucking Inc. The carrier was issued USDOT 838180. The carrier was never in the New Entrant program. The carrier has had five CRs since 2007. The carrier currently has two BASICS in Alert status: Unsafe driving 95% and Crash indicator at 85%. The truck driver held a valid Ohio Class A CDL with an issue date of October 2021 and an expiration date of May 2025. The driver also held a valid medical certificate with an issue date of February 2023 and expiration date of February 2024. The driver stated he was in the sleeper berth at the time of the crash. According to the ISP the driver entered the rest area and parked approximately 10:00 pm. The truck driver's ELD shows the driver at the rest area at 10:32 pm.

Vehicle 4. 2023 Mack truck-tractor in combination with a 2019 Great Dane semi-trailer. The combination unit was owned and operated by Robert Branum Trucking, LP. The carrier is out of Amarillo, Texas. The carrier was assigned USDOT number 838180. The carrier was never in the New Entrant program. The carrier had received five CRs since 1999. At the time of the crash the carrier had no (zero) alerts in the BASICS. The driver held a valid Texas Class A CDL with an issue date of December 2022 and expiration date of November 2031. The driver had a valid medical certificate with an issue date of October 2022 and expiration date of October 2023. According to ISP the driver entered the rest area and parked approximately at 10:20 pm. According to the driver's ELD he entered the rest area at 10:20 pm.

⁵⁶ For more information see: [eCFR :: 49 CFR Part 385 Subpart D -- New Entrant Safety Assurance Program](#)

7.1 Illinois State Regulations for Parking on Shoulders

Under Illinois State Regulations, Section 11-1303 (1)(j) states vehicles are restricted from stopping, standing, or parking in specified places, on any controlled access highway.⁵⁷ As such, the trucks involved in this crash that were parked on the shoulders leading into the Silver Lake rest area were not legally parked.

7.2 Applicable Operating Rules

Under Federal regulations 49 CFR §392.2- "Every commercial motor vehicle must be operated in accordance with the laws, ordinances, and regulations of the jurisdiction in which it is being operated. However, if a regulation of the Federal Motor Carrier Safety Administration imposes a higher standard of care than that law, ordinance or regulation, the Federal Motor Carrier Safety Administration regulation must be complied with."

7.3 Federal Regulations for CMVs Stopping on Shoulders

The federal regulations address procedures for stopping on shoulders. Under 49 CFR 392.22 Emergency signals; stopped commercial motor vehicles states:

(a) *Hazard warning signal flashers.* Whenever a commercial motor vehicle is stopped upon the traveled portion of a highway or the shoulder of a highway for any cause other than necessary traffic stops, the driver of the stopped commercial motor vehicle shall immediately activate the vehicular hazard warning signal flashers and continue the flashing until the driver places the warning devices required by paragraph (b) of this section. The flashing signals shall be used during the time the warning devices are picked up for storage before movement of the commercial motor vehicle. The flashing lights may be used at other times while a commercial motor vehicle is stopped in addition to, but not in lieu of, the warning devices required by paragraph (b) of this section.

(b) *Placement of warning devices –*

(1) *General rule.* Except as provided in [paragraph \(b\)\(2\)](#) of this section, whenever a commercial motor vehicle is stopped upon the traveled portion or the shoulder of a highway for any cause other than necessary traffic stops, the driver shall, as soon as possible, but in any event within 10 minutes, place the warning devices required by [§ 393.95 of this subchapter](#), in the following manner:

(i) One on the traffic side of and 4 paces (approximately 3 meters or 10 feet) from the stopped commercial motor vehicle in the direction of approaching traffic.

(ii) One at 40 paces (approximately 30 meters or 100 feet) from the stopped commercial motor vehicle in the center of the traffic lane or shoulder occupied by the commercial motor vehicle and in the direction of approaching traffic; and

⁵⁷ Retrieved from: [625 ILCS 5/11-1303 \(ilga.gov\)](https://www.ilga.gov/legislation/ilcs/ilcs5.asp?docID=10699&chapID=625&actID=111303)

(iii) One at 40 paces (approximately 30 meters or 100 feet) from the stopped commercial motor vehicle in the center of the traffic lane or shoulder occupied by the commercial motor vehicle and in the direction away from approaching traffic.

8.0 Previous NTSB Investigations Involving Collisions with CMVs Parked on Shoulders

Burnt Cabins, Pennsylvania

On June 20, 1998, at approximately 4:05 a.m. a 1997 Motor Coach Industries 47-passenger motorcoach, operated by Greyhound Lines, Inc., was on a scheduled trip from New York City to Pittsburgh, Pennsylvania, traveling westbound on the Pennsylvania Turnpike near Burnt Cabins, Huntingdon County, Pennsylvania. As the bus approached milepost (MP) 184.9, it traveled off the right side of the roadway into an "emergency parking area," where it struck the back of a parked tractor-semitrailer, which was pushed forward and struck the left side of another parked tractor-semitrailer. Of the 23 people on board the bus, the driver and 6 passengers were killed; the other 16 passengers were injured. The two occupants of the first tractor-semitrailer were injured, and the occupant of the second tractor-semitrailer was uninjured.⁵⁸

Jackson, Tennessee

About 6:12 a.m. on June 3, 1999, a 1999 truck tractor-semitrailer was passing by a public rest area on Interstate 40 (I-40) near Jackson, Tennessee. The truck parking spaces within the public rest area were filled, and several trucks were parked along the outside edge of the acceleration lane leading back onto I-40. As the moving truck was passing the public rest area, it left the interstate, entered the grass right-of-way dividing the interstate from the public rest area, ascended a 28-percent grade, became airborne, and vaulted over the acceleration lane toward a parked tank truck, which had previously been loaded with liquid oxygen. The collision resulted in a fire. In addition to the initial collision with the parked tank truck, the crash resulted in collisions with two additional combination units that were parked in front of the tank truck. The three occupants of the truck tractor-semitrailer that had run off the roadway and the two occupants in the tank truck's sleeper berth were fatally injured. The occupant of one of the other two combination units received serious injuries.⁵⁹

Tallulah, Louisiana

At 10:50 a.m. on October 13, 2003, a 1992 Neoplan USA Corporation 49-passenger motorcoach, owned and operated by the First Baptist Church of Eldorado, Texas, was traveling eastbound on Interstate 20 near Tallulah, Louisiana. The

⁵⁸ [Greyhound Motorcoach Run-Off-the-Road Accident, Burnt Cabins, Pennsylvania, June 20, 1998 \(nts.gov\)](https://www.nts.gov/press-releases/2019/06/20/2019-06-20-greymotorcoach-run-off-the-road-accident-burnt-cabins-pennsylvania-june-20-1998)

⁵⁹ For additional information see: [View Docket Item \(nts.gov\)](https://www.nts.gov/docket-items/2003/03-06-2003-jackson-tn)

motorcoach, carrying 14 passengers, was en route from Shreveport, Louisiana, to Tuscaloosa, Alabama, as part of a multicity sightseeing tour that had originated in Eldorado. As the motorcoach approached milepost 168, it drifted rightward from the travel lanes and onto the shoulder, where it struck the rear of a 1988 Peterbilt tractor semitrailer operated by Alpha Trucking, Inc., which was stopped on the shoulder at milepost 167.9. As both vehicles moved forward, the motorcoach rotated clockwise slightly and the semitrailer rotated counter-clockwise slightly; the vehicles remained together. They traveled approximately 62 feet and came to rest, still oriented to the east, adjacent to the right side of the interstate on the outside shoulder. Eight motorcoach passengers sustained fatal injuries, the motorcoach driver and six passengers received serious injuries, and the Peterbilt driver was not injured.

Millersburg, Oregon

On Thursday, May 18, 2023, about 2:45 p.m. Pacific daylight time, a 2018 Freightliner truck-tractor in combination with a 2014 Utility soft-sided semitrailer, was traveling northbound on Interstate 5 (I-5) north of Millersburg, Marion County, Oregon. A 2001 Ford Econoline van towing a small utility trailer, was parked on the 25-foot-wide right shoulder north of the highway exit ramp leading to the North Santiam rest area. A 2023 Freightliner Cascadia truck-tractor in combination with a 2023 Utility semitrailer, was also parked on the right northbound shoulder of I-5 in front of the van. The 2018 Freightliner departed the highway travel lanes while approaching the location of the stopped vehicles and collided with the rear of the van and its trailer. The van was subsequently pushed forward into the rear of the 2023 combination vehicle. As a result of the crash, seven van occupants were fatally injured, three were seriously injured, and one sustained minor injury. The drivers of the combination vehicles were not injured.⁶⁰

9.0 National Coalition on Truck Parking

A The U.S. Department of Transportation (USDOT) and several stakeholder organizations established the National Coalition on Truck Parking (Coalition) in August 2015 as a response to a documented need for truck parking solutions. Stakeholders engaged in the Coalition represent the trucking industry, commercial vehicle safety officials, State departments of transportation (DOTs), and commercial truck stop owners and operators. This National Coalition on Truck Parking Activity Report, 2015-2016 (Report) documented the first year of Coalition activities and synthesized suggestions from participants to address truck parking problems across the Nation.⁶¹

The Coalition was formed to respond to needs identified in a truck parking survey conducted by the Federal Highway Administration (FHWA) as part of Section

⁶⁰ Retrieved from: [HWY23FH013.aspx \(ntsb.gov\)](https://www.nts.gov/HWY23FH013.aspx)

⁶¹ Retrieved from: [National Coalition on Truck Parking - FHWA Freight Management and Operations \(dot.gov\)](https://www.fhwa.gov/national-coalition-on-truck-parking)

1401, also known as "Jason's Law," a provision in the Moving Ahead for Progress in the 21st Century (MAP-21; P.L. 112-141) Act, enacted on July 6, 2012. The Jason's Law Truck Parking Survey Results and comparative Analysis (Analysis) of August 2015 documents those findings. The USDOT and its partners are committed to raising the level of dialogue, coordination, and response of the public and private sectors to this area of freight operations and safety.

The Analysis reported on levels of truck parking demand and compared it to publicly and privately available truck parking opportunities along the National Highway System (NHS). Coalition partners were instrumental in designing and distributing the survey and in developing metrics identified in the Analysis to provide a mechanism to periodically evaluate truck parking needs. Truck parking is a matter of national safety for truck drivers and the traveling public. A number of national and regional studies in recent years have documented the following conditions that combine to further heighten the truck parking problem:

- Projected growth of truck traffic on the Nation's highway system.
- Barriers encountered by facility owners attempting to expand existing parking sites.
- More acute truck parking needs in certain regions of the country.
- A lack of adequate information for drivers about parking availability at existing facilities.
- Challenges associated with meeting scheduling requirements of shippers and receivers.

On October 12, 2023, NTSB staff met with members of the National Coalition on Truck Parking that included government representatives from FHWA and FMCSA. The purpose of the meeting was to discuss the purpose of the Coalition and activities, goals, and current projects focused on addressing potential solutions for CMV parking shortages. NTSB also contacted the FMCSA for an update on their activities for CMV parking shortage issue. The FMCSA provided a summary report of their activities.⁶²

F. DOCKET MATERIAL

Motor Carrier Attachment - Greyhound MCS-150.

Motor Carrier Attachment - Greyhound Professional Motorcoach Operator.

Motor Carrier Attachment - Greyhound Safety Plan.

Motor Carrier Attachment - Greyhound Safety Manual (Excerpts).

Motor Carrier Attachment - Greyhound Driver Rule Book (Excerpts).

⁶² See Motor Carrier Attachment - FMCSA Truck Parking Activities Report.

Motor Carrier Attachment - Greyhound Union Contract (Excerpts).
Motor Carrier Attachment - Greyhound DriveCam Memorandums.
Motor Carrier Attachment - Greyhound Lytx Program Presentation.
Motor Carrier Attachment - Hilton Garden Inn Room Stays for Subject driver.
Motor Carrier Attachment - Greyhound Driver Disciplinary Actions.
Motor Carrier Attachment - Greyhound Driver's DriveCam Events July 12, 2022 - July 31, 2023.
Motor Carrier Attachment - FMCSA Truck Parking Activities Report.

End of Information

Submitted by:

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