



**MOTOR CARRIER FACTORS GROUP CHAIRMAN'S  
FACTUAL REPORT**

**Biloxi, Mississippi**

**HWY17MH010**

(20 pages)

**NATIONAL TRANSPORTATION SAFETY BOARD  
OFFICE OF HIGHWAY SAFETY  
WASHINGTON, D.C.**

**MOTOR CARRIER FACTORS GROUP CHAIRMAN'S  
FACTUAL REPORT**

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**A. ACCIDENT INFORMATION**

**Location:** Rail Crossing, Main Street, Biloxi, Harrison County, Mississippi

**Vehicle #1:** 2016 Van Hool CX 45 Motorcoach

**Operator#1:** Echo Tours & Charters LP DBA Echo Transportation

**Date:** March 7, 2017

**Time:** 2:12 p.m. CST

**NTSB#:** HWY17MH010

**B. MOTOR CARRIER FACTORS GROUP**

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## **C. CRASH SUMMARY**

For a summary of the crash, refer to the *Crash Summary Report* in the docket for this investigation.

## **D. DETAILS OF THE MOTOR CARRIER FACTORS INVESTIGATION**

This investigative report addresses the motor carrier history and operations of Vehicle #1 involved in this crash a 2016 Van Hool CX45 Motorcoach Passenger Vehicle hereafter referred to as the (Van Hool) operated by Echo Tours & Charters LP DBA Echo Transportation (Echo). This report details the employment history of the driver of the Van Hool, (accident driver).

This report includes the factual findings related to hours of service (HOS), roadside inspection history, drug testing procedures and the government oversight of the motor carrier operation. Echo is overseen by Federal Motor Carrier Safety Administration (FMCSA), and the State of Texas.

### **1. Motor Carrier History for Echo Transportation**

#### **1.1 Present History**

Echo was started in 2011 and has a US DOT Number 2172280. The carrier has MC number 775212 because it is an interstate carrier and is required to have operation authority. Echo purchased an existing carrier Buses by Bill Inc, US DOT Number 510901 and MC number 260442. This carrier had been operation since 1994 and at the time of the purchase operated 23 vehicles and employed 55 drivers.

Echo currently operates 109 vehicles and employs 169 drivers. The carriers Principle Place of Business (PPOB) is in Dallas, Texas 75211. In 2015, Echo became a subsidiary of the TBL Group of Huston, Texas. This is a stock holding company that controls Echo as well as GBJ Inc. DBA AFC Transit USDOT 835782 MC number 369531. Both companies are operated separately and have different operational management.

The carrier also has a maintenance facility at the same address. The carrier is overseen by the Texas Department of Public Safety (TXDPS) and the Texas Department of Motor Vehicles, (TXDMV) as well as the Federal Motor Carrier Safety Administration (FMCSA)<sup>1</sup>

#### **1.2 Terminal Operations**

The carriers PPOB is in Dallas, Texas. This facility consists of a large building used as a shop, wash rack, paint shed as well as a training area. The offices are in modular buildings adjacent to the shop. A large parking area is secured by a fence and is limited access. The facility also has fueling on site for the equipment. The carrier has multiple operations and has separate dispatch, sales, human resources, and safety departments to oversee the operations. The safety department consists of a manager of safety and compliance who oversees a full-time staff assistant and a full-time training employee. These employees monitor the hours of service, drug testing as well insure

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<sup>1</sup> See Motor Carrier Attachment - Echo Transportation MCS-150

the driver qualification files are in compliance with Title 49 CFR Part 391. They also provide training for the employees of the carrier in a training facility located at the carriers PPOB. The safety manager has had training in accident investigation and is a certified Smith System instructor. The manager is in the process of getting credentials as a certified director of safety. The safety manager also monitors the daily Lytx Drivecam events reported to the carrier.

Echo also has satellite operations in Waco, Tyler, Austin, and San Antonio, Texas. The carrier has vehicles garaged in Waco and Tyler, Texas. Charter operations are operated from these locations. The for-hire charter operations are the largest part of the carriers' operations.

Echo also has dedicated shuttle operations for several customers in the Dallas/Fort Worth area. The carrier also operates dedicated shuttle operations in Wyoming for various mining operations. The carrier is also a Federal Transit Authority grantee.<sup>2</sup> Echo also leases several buses to the Dallas Area Rapid Transit authority under contract.

### **1.3 Driver Qualification File**

The accident driver was a 60 years old male at the time of the crash. The accident driver's driver's qualification (DQ) file was in compliance with Title 49 CFR Part 391 requirements. The accident driver's DQ file contained the following: a valid class B CDL with passenger/school bus endorsement, a copy of the driver's CDL, application for employment, medical certificate, previous employer background checks, motor vehicle report (MVR), copy of the Pre-Employment drug test. As well as annual driver reviews and a pre-employment PSP report<sup>3</sup>. The driver DQ file also contained a record of Drive Cam events and counseling documents. The driver's re-occurring training records are in a separate file.<sup>4</sup>

### **1.4 Driver Employment History**

The accident driver was employed by Echo from February 2013 until January 2015 when he left Echo. The driver was re-hired in September of 2015. During the break in service at Echo the accident driver was employed by Roadrunner Charters (USDOT 1238490) in Hurst, Texas.

The driver works full time for the carrier and has no outside employment. The accident driver started operating school buses in June 2006 for the Fort Worth Independent School District, in Fort Worth Texas. The school district provided formal driver training for the accident driver. This employment continued until September 2012 when the accident driver left for other employment. The accident driver worked for Waste Management from September 2012 until February of 2013.

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<sup>2</sup> A Federal Transit Authority grantee receives grant money to subsidize transit operations. The Federal Transit Authority is a department within the US Department of Transportation.

<sup>3</sup> PSP is a Pre-Employment report from FMCSA that a carrier can obtain to view a driver's 3-year inspection and 5-year crash history. See [www.fmcsa.gov](http://www.fmcsa.gov).

<sup>4</sup> See Motor Carrier Attachment - Accident Drivers DQ File

## **1.5 CDL Requirements**

At the time of the crash, the accident driver held a valid Texas Class B Commercial Driver's License (CDL) with a Passenger/ School Bus endorsement. The CDL had an issue date of January 2017 and an expiration date of March 2021. The CDL indicated no restrictions. The motor carrier supplied a current MVR on the accident driver. The driver also had a current two-year medical certificate issued in January of 2017 and is valid until January 2019. A provider listed on the National Registry of Medical Examiners performed the medical.

## **1.6 Accident Driver's Driving Record**

A Commercial Driver License Information System (CDLIS) report was obtained and it listed two speeding violations in a personal vehicle, these violations were in Texas and Oklahoma in 2015 and 2016. These violations were also listed on the Texas DMV report, which was supplied by the motor carrier.<sup>5</sup> While employed by Roadrunner Charters the accident driver self-reported a Non-Reportable DOT accident on August 13, 2015 in which he turned too sharp and rubbed a fender of a parked vehicle.

## **1.7 Accident Driver's Roadside Inspection History**

While employed by Echo the accident driver was subject to two roadside inspections.

- On July 21, 2016 conducted by the Hualapai Tribal Police Department in Peach Springs, Arizona. This was a level one (Full Inspection). The driver had violations recorded for two Record of Duty Status violations (general form and manner) under 49 CFR Part 395.8(h)(5). A carrier violation was noted for 49 CFR Part 393.95(f) No or insufficient warning devices. The triangle box was empty. None of these violations are considered Out-of-Service violations.
- On March 7, 2017, a post-crash level three inspection (Driver Only) was conducted by the Mississippi Department of Public Safety. The driver had violations recorded for Record of Duty Status under 49 CFR Part 395.8(a); no log book, as well as 49 CFR Part 392.2 RR (Railroad Grade Crossing violation); Stuck on tracks. The carrier was cited for a violation of 49 CFR Part 392.2 RG (State vehicle registration or license plate violation: no cab card.)<sup>6</sup> None of these violations are considered Out-of-Service violations. The motor carrier submitted a Data Q request to the State of Mississippi related to this inspection.<sup>7</sup>

A review of the roadside inspections for Roadrunner Charters did not report any roadside inspections for the accident driver.

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<sup>5</sup> See Motor Carrier Attachment - Accident Drivers CDLIS Reports

<sup>6</sup> See Motor Carrier Attachment - Post Accident Vehicle Inspection

<sup>7</sup> Data Q is a program that allows a carrier to request a review the violations listed on a roadside inspection and have them removed from the inspection if the state that issued the inspection agrees. See Data-Q at FMCSA.gov.

## 1.8 Drug and Alcohol Testing

The carrier had a drug and alcohol testing program that was compliant with the requirements under 49 CFR Part 382. The accident driver had a pre-employment test on August 26, 2015 this test was negative. The accident driver had not been selected for a random test in the last year.

Immediately following the crash, the accident driver submitted to a blood test performed by the Singing River Hospital in Pascagoula, Mississippi. That testing was negative for ethanol (alcohol). According to carrier officials, the accident driver was admitted to the hospital after the crash. The carrier had the Singing River Hospital administer a DOT post-crash drug and alcohol test as provided for in 49 CFR Part 382.302 These tests were negative for controlled substances and alcohol.

## 1.9 Accident Driver's Hours of Service

In the seven days prior to crash the accident driver had been on duty for a total of 48.25 hours. The driver had deadheaded to Bastrop, Texas to rest, prior to starting the tour on Sunday, March 5, 2018. The driver had been off duty from 4:45 p.m. on Saturday March 4, to 06:00 Sunday March 5. At the time of the crash the driver was in compliance with the Hours of Service (HOS) regulations. NTSB investigators as well as FMCSA investigators analyzed the 30 days of Record of Duty Status (RODS) prior to the accident trip and found them in compliance. These documents are commonly referred to as "Log Books" Additional information on the driver's hours prior to the crash are in the Human Performance Group Chairman report in the docket for this investigation.

The accident trip is in table 1 below.

Saturday March 4, 2017 to Tuesday March 7, 2017				
Driving Time Driver	Start Location	Source	Distance Stop Location	Hours on Duty and Driving
14:30 to 16:30 March 4, 2017	Dallas, TX	Driver Logs	228 miles Bastrop, TX	On Duty: 0.75 Driving: 4.00 Total: 4.75
06:00 to 20:15 March 5, 2017	Bastrop, TX	Driver Logs	363 miles Lafayette, LA	On Duty: 3.75 Driving: 7.25 Total: 11.00
08:15 to 14:30 March 6, 2017	Lafayette, LA	Driver Logs	170 miles Bay St. Louis, Mississippi	On Duty: 1.75 Driving: 2.75 Total: 4.50
Noon to 1400 March 7, 2017	Bay St Louis, MS	Driver Logs	Approx. 25 miles Main St Rail Crossing Biloxi, Mississippi	On Duty: 1.50 Driving: 0.50 Total: 2.00

## 1.10 The Accident Trip

On March 7, 2017 the accident trip started at Bay St Louis, Mississippi at the Hollywood casino resort. This is the location the tours were starting from each day for trips to various locations in the Biloxi and New Orleans. This trip was going to the Boomtown Casino in Biloxi, MS for the afternoon and was scheduled to return to the Hollywood Casino at 6:30p.m. the day the accident trip. The accident driver started his shift at 12:00pm noon on duty not driving. The driver pre-tripped his motorcoach and got set up to load the tour group. The accident motorcoach was the first of three motorcoaches taking three separate tour groups to the Boomtown Casino in Biloxi, Mississippi. The accident driver picked up his passengers at 1:00p.m. and departed at 1:30p.m. toward the Boomtown Casino in Biloxi, Mississippi. The tour company Diamond Tours located in Ft Meyer, Florida had given the tour bus drivers a route on the charter order for each motorcoach. The driver departed the hotel at Bay St Louis following the directions that had been supplied in the charter order. The Diamond Tours destination manager stated she had sent out a text message to the motorcoach drivers and to each tour group leader to change the route and take the “scenic route” into Biloxi using US 90, which runs along the gulf coast.<sup>8</sup> The accident driver stated that he did not receive the text message. The accident driver started toward Biloxi using the route that was outlined on the charter order. This route utilizes the freeway, Interstate’s 10 and 110. To exit #1D Bayview Ave.

Each of these groups had a group leader who was with the organization that had purchased the trip for their organization. The group leader asked the accident driver if they could take the “scenic route” The driver confirmed that they wanted to take this alternative route and turned his motorcoach around. NTSB investigators interviewed the Bastrop Senior Center group leader and she stated she did not recall getting a text message from the Diamond Tours destination manager. When asked how she knew about the “scenic route” she stated she had heard other folks on the tour talk about it at breakfast that morning.<sup>9</sup>

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<sup>8</sup> See Motor Carrier Factual Report Attachment - Diamond Tours Destination Manager Text Message

<sup>9</sup> See the Bastrop Group Leader interview in the Survival Factors Factual Report

Figure 1. Google map of routes to Boomtown Casino in Biloxi, MS.



The red line shows the route using Interstates 10 and 110. The blue line shows the “scenic route” using US 90.

The driver stated the GPS unit routed the motorcoach along US-90 and to turn left onto Main Street in downtown Biloxi. A Garmin DEZL 570MT GPS was recovered by the Biloxi Police Department from the motorcoach. The device was downloaded normally using manufacturers and forensic software. Accident related data was found on the device. For further information, see the Recorders Group Chairman’s report in the docket for this investigation.

The Main Street railroad crossing was equipped A Grade Crossing (Crossbuck) sign, in conjunction with the flashing-light signal assembly and mechanical gates. The crossing also displayed a highway warning sign marked “Low Ground Clearance” with a graphic of a “low boy” trailer striking the tracks. A second highway warning sign stated, “Construction ahead 15 mph”

See Photo # 1 For additional information refer to the Highway Group Chairman factual report in the docket for this investigation.





Photo # 1 View of Main Street Crossing Northbound from the Motorcoach View.

NTSB investigators interviewed the accident driver on March 15, 2017 at the accident driver's home. The accident driver stated that when he was approaching the railroad crossing on Main street when he observed a vehicle traveling toward the intersection from his left. At this intersection, the northbound traffic has no traffic restrictions and the cross street has a stop sign. The driver stated he was not sure the driver was going to stop so he was watching the vehicle approaching from his left. The driver then pulled up to the beginning of the crossing area and stopped his motorcoach and stated he did not see any train coming. As the driver started to cross the grade, he raised the rear of the motorcoach. A switch on the dash of the vehicle allows the driver to increase the height of the rear suspension air bellows in relation to normal ride height by means of a dash switch. The rear raising system has been conceived to avoid having the rear bumper touch the ground in "off highway" situations. (NOTE: Switching on the rear raising system is only possible with engine running) This action rises the rear of the vehicle approx. four inches. For more information on this feature, see the Vehicle Factors Group Chairman's report in the docket for this investigation.

The driver stated he always did this to prevent the tail of the motorcoach from dragging. The motorcoach started over the crossing and when the front of the motorcoach started down the other side of the grade the motorcoach became stuck on the crossing. The driver stated he tried to "rock" the motorcoach off the tracks but it would not move. He opened the front door of the motorcoach and started to get the passengers off the motorcoach. The driver heard the bells and lights of the crossing signals and heard the train horn after he had started to evacuate the vehicle.

The driver stated he did not know the timing of these signals and sounds or the distance the train was approaching from as he was focused in trying to get the passengers off the motorcoach.<sup>10</sup>

## **2.0 Maintenance**

The accident vehicle was a 2016 Van Hool Motorcoach Passenger Vehicle. The carrier performed all the maintenance on the vehicles in house at the facility located Dallas, Texas. This location also has a “speed lane” where every motorcoach is inspected by a mechanic, repaired if needed and then washed after every trip. This is done prior to the motorcoach being dispatched on another trip.

The carrier employs 12 full time mechanics. The carrier operates seven days per week. The mechanics work three shifts per day to maintain the vehicles. The shop is maned 24/7. In reviewing the records for the accident vehicle all the services and maintenance records were current. The accident vehicle had its last annual inspection was on April 7, 2016. A certified commercial inspection vendor in Irving, Texas performed this inspection.

The vehicle also had all the emergency exit inspections, which are due to be performed every 90 days on the following dates:

- February 22, 2017
- December 20, 2016
- September 30, 2016
- July 4, 2016

April 6, 2016 this inspection was done two days prior to the bus being registered in Texas and put into service. The carrier maintained Daily Vehicle Inspection Reports (DVIR’s) as required.

The Mississippi Department of Public Safety preformed a post-crash Level 3 inspection and cited the accident driver for two violations. The inspection also noted one state license violation. None of these violations was an Out of Service violation<sup>11</sup> The carrier’s fleet maintenance consisted of comprehensive and systematic program of repairs, services, and preventative maintenance that was in compliance with the requirements under 49 CFR Part 396.3. Further vehicle information is in the Vehicle Factors Group Chairman’s report in the docket for this investigation.

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<sup>10</sup> See the Accident Drivers interview in the Human Performance Factual Report

<sup>11</sup> See Motor Carrier Attachment - Post- Accident Vehicle Inspection

### **3.0 Carrier Safety Culture Overview**

The carrier has a safety culture that is guided by the guiding principle of "People Powered ...Safety Driven" The company has this as a guiding principle and appears on the side of the carrier's vehicles. As well as on the carrier's mission statement.

The carrier employs a full-time safety director who oversees a staff which consists of a full-time assistant and a full-time training instructor. This is addition to the human resources (HR) department that helps confirm compliance with driver qualifications and drug testing requirements. The dispatch operations group help to insure hours of service compliance.

Echo core values are centered on ensuring that all drivers are successful throughout their career and oversees the drivers in every step of the driver's career with the carrier. This process is initiated during the hiring process it starts with the new driver training, the new driver on-boarding process, continual performance monitoring as well as refresher training.

### **3.1 Safety Culture Details**

Echo Transportation provides its employees with a 40-page Professional Motorcoach Operator Supplement handbook. Safe operation is the focus of the handbook. The supplement states in part on page one "You are expected to know how to safely operate your motorcoach"<sup>12</sup> In section 5.1 the company states that it is committed to continuing driving and safety training and pays for all hours spent in training. Regarding defensive driving all drivers are required to attend periodic safety meetings, and to take Defensive Driving refresher every six (6) months.

Driver refresher and evaluation is addressed another section and when driver refresher training would be required for any break in service of thirty days (30) or more. The carrier also has an outline of when drivers are subject to evaluation and re-training. Some examples of conduct that would require evaluation are:

- An operator who has a serious negligent preventable accident.
- An operator who has three (3) reckless driving complaints in a six (6) month period.
- An operator who has two (2) accidents (preventable or non-preventable) in a three (3) month period.

Section 9 of the safety policy outlines the following areas:

- Hours of Service.
- Drivers standards of performance.

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<sup>12</sup> Professional Motorcoach Operator Supplement is proprietary to Echo Transportation Inc.

- Air Pressure, Brakes, Backing.
- Proper crossing of Railroad Crossings (this is step by step guide that outlines all the FMCSR requirements for rail crossings. Speed, Safe Following Distances, Adverse Weather.
- Use of Headlights (on whenever the bus is moving), Right of Way, Refueling.
- Seat Belts, Cell Phone Policy, Use of Radar Detectors.
- Defensive Driving.

The Echo stated they held periodic mandatory safety meetings and safety training. Investigators asked for documentation that the bus driver had attended these safety related events, as well as a listing of the content of the events the driver would have been exposed to. The accident driver had the following training records in his training file.

- New Hire Training completed satisfactorily on March 21, 2013.
- Safety Meeting and Recertification Class on December 21, 2015.
- Safety Meeting on December 05,2016.
- Drivers Training Class and Safety Meeting on January 09, 2017.

### **3.2 Company Hiring Practices**

According to the general manager the process usually began with prospective drivers applying. The application was then reviewed against Motor Vehicle Adjudication standards as well as Criminal Records Adjudication Standards. These standards list various motor vehicle violations as well as criminal violations that would render a prospective applicant “Do Not Hire” or “Eligible for Hire upon Review”<sup>13</sup> This procedure was performed by the HR department and is included in the pre-screening portion of the process.

Once the application was reviewed, the candidate would be called for interviews. The First interview was a general interview to review the application and determine if the candidate had been previously employed by Echo or the TBL Group. If the candidate passed this portion of the application process they would have a second “Technical Interview” conducted by the operations department to determine the skills of the applicant. The carrier hires drivers for various types of driving operations the carrier has. The carrier has drivers as either charter drivers or shuttle drivers or line run drivers. If the applicant is qualified to this point the operations department advises HR and the candidate is subject to a background report, 5-year MVR, and FMCSA PSP report.<sup>14</sup> After a review of the background records the safety department will notify the applicant

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<sup>13</sup> MVR and Criminal adjudication standards proprietary to Echo Transportation Inc.

<sup>14</sup> FMCSA PSP Report is a driver report that lists all crashes for the past 5 years and inspections for the past 3 years. See PSP at FMCSA.Gov

that they will be considered and a Driver's Qualification (DQ) file is created. This process takes five days on average.

The candidate then begins the "Onboarding Process" During this process the candidate is sent for a pre-employment drug test, receives a general company orientation as well as a HR orientation. The candidate then is assigned to a training class and begins to receive training pay. This part of the process takes 15 to 20 days on average.

### **3.3 Driver Event History**

Echo utilizes the Lytx Drivecam to monitor the on-road performance of their drivers. The Lytx Drivecam system combines a telematic as well as video technology to allow carriers to monitor the driver operation of the vehicle as well as to identify driving habits that may be indications of risky driving behavior. This system uses a system that records driving events and scores them on a scale<sup>15</sup>, that is loosely based on the Smith Defensive Driving System. Events are classified as a "scored event" that includes hard breaking, following to close, and sharp turns or a "non-scored event" that is an event that is usually a company policy violation or something the driver could not control. The carrier reviews these events and then coaches the driver on ways to improve performance. The carrier can download these events with the video footage for 90 days. Lytx stores the video for a year after the event date in a server. After one year the video clips are purged unless they were saved prior to that date.<sup>16</sup>

The carrier also has video monitoring of all drivers with face to face counseling as needed after every event. The coaching consisted of Face-To-Face coaching. Most of the coaching for the accident driver was reiterating Keys from the Smith System on "Aim High in Steering" and "Get the Big Picture" or reiterations of company policies. After the carrier does it's coaching the event is marked as resolved. The carrier then retains the video as well the event history on the driver.

The accident driver had 34 recorded events from during the reporting period of November 01, 2015 until March 14, 2017. This an average of 2 events per month. The first event for the accident driver was on January 03, 2016 and the last event was on March 03, 2017. Of the 34 events that were recorded, 27 were scored events. The driver had coaching for the 27 scored as well as one non-scored event during this time.

### **3.4 Company Training Process**

Echo has mandatory training for all new drivers of 9 days that consists of classroom as well as driving training. The carrier also has re-occurring training for all drivers. The carrier teaches the "Smith System"<sup>17</sup> of safe driving as well as monitors the drivers with a drive cam system that records critical events while the driver is operating the vehicle. The carrier has counseling meetings

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<sup>15</sup> Each event is assigned a score from 0 to 10. 10 being the highest risk.

<sup>16</sup> Lytx Drivecam information found at <https://www.lytx.com/en-us/fleet-services>.

<sup>17</sup> The Smith System is a defensive driving training program by Smith System Driver Improvement Institute, Inc.

with the drivers that have critical events reported. It also has a policy to include disciplinary action if needed. The accident driver had new employee as well as reoccurring training.

The training process takes nine days of which five are in a classroom and four are actual operation of the equipment on roads in traffic to include night driving. The last day of the on-road portion include a final road test and Smith System Evaluation. The driver, if successful is then put into the dispatch system, completes their HR and DQ file and is given the new employee packet that includes a 29-page employee handbook, an 18 page “Zero-Tolerance” Drug and Alcohol Policy handbook, and a 40 page “Professional Motorcoach Operator Supplement” handbook.

### **3.5 Railroad Crossings Training**

In the “Professional Motorcoach Operator Supplement” that is given to the drivers of the carrier. This supplement is a training document that is a proprietary publication of Echo. And is used in the classroom portion of the new driver training. In section 9.8 the following information is listed:

“All Operators are required to make a FULL AND COMPLETE STOP (WITH HAZARD LIGHTS ON) in the RIGHT-HAND LANE OR ON THE ROAD-WAY SHOULDER, (if paved or black topped), at all railroad grade crossings (unless exempt). UNDER NO CIRCUMSTANCES IS AN OPERATOR TO CROSS A RAILROAD GRADE CROSSING WITHOUT COMPLYING WITH THE PROVISION OF THE LAW”.

In the event that there are two or more railroad crossings and they are all within seventy (70) feet of each other, a second stop is not required; however, a second stop is required if there is a crossing arm or red lights at the second or more crossings even though they may be less than seventy (70) feet apart.

All stops at railroad grade crossings should be no closer than fifteen (15) feet from the railroad tracks, cross bars, red traffic control lights, or stop line and no further than fifty (50) feet from the railroad tracks, cross bars, red traffic control lights, or stop line.

Exceptions are: “When a Police Officer or Crossing Flag, Person directs traffic to proceed. A railroad grade crossing controlled by a functioning street/highway traffic signal transmitting a green light which under local law permits the vehicle to precede across the railroad tracks without slowing or stopping.”<sup>18</sup>

This information is a paraphrased version of the guidelines published by FMCSA in the brochure titled “7 Steps for Safety Highway-Rail Grade Crossings” The contents are listed below:

#### **7 Steps for Safety - Highway-Rail Grade Crossings**

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<sup>18</sup> Professional Motorcoach Operator Supplement” proprietary to Echo Transportation Inc.

1. Approach with care. Warn others that you are slowing down. Turn on 4-way flashers. Use pull-out lane if available.
2. Prepare to stop. Turn off fans and radio and roll down windows. Locate your cell phone for use in emergency. Stop at least 15 feet, but not more than 50 feet, from nearest rail.
3. Look both ways and listen carefully. Bend forward to see around mirrors and A-pillars.
4. If it won't fit, don't commit. Do not enter a crossing unless you can drive completely through without stopping! And, remember, trains are wider than the track. Before you pull onto the track, make sure there is enough room on the other side for the back of your vehicle (and any overhanging cargo) to be at least 6 feet beyond the furthest rail.
5. Look again. Before you move, look again in both directions.
6. Cross tracks with care. Signal, watch for a safe gap, pull back onto the road if you used a pull-out lane. Use highest gear that will let you cross without shifting.
7. Keep going once you start, even if lights start to flash or gates come down.

The accident driver completed this railroad crossing training in 2013.

The guidance issued by FMCSA as well as the Texas Commercial Motor Vehicle Drivers Handbook does not address the humped crossing warning sign, nor do they show an example of the sign.

Publications by FMCSA, American Association of Motor Vehicle Administrators (AAMVA), Federal Highway Administration (FHWA), did not have any specific information on or training on 'Low Clearance' warning signs, AAMVA stated that "Hanging up on a railroad crossing is a dangerous predicament, and is becoming too common as more very low trailers are manufactured. Lowboy trailers, car carriers, moving vans, and possum-belly livestock trailers are particularly susceptible, as are single-axle tractors pulling a long trailer with landing gear which is set to accommodate a tandem-axle tractor."<sup>19</sup> Motorcoaches are not mentioned as being susceptible.

FMCSA, as well as AAMVA have guidance for what to do if your vehicle becomes hung up on the tracks but do not have instruction on what low ground clearance is and which types of vehicles it would apply to.<sup>20</sup>

AAMVA is credited for creating the material for the Texas Commercial Motor Vehicle Drivers Handbook and no mention of low clearance vehicles is mentioned in the training manual. The Texas Drivers Handbook has a section titled "Transporting Passengers Safely" as well as section on "School Bus". Both sections have training on the proper procedures for navigating railroad crossings as well as what a driver should do if the vehicle gets stuck on the

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<sup>19</sup> American Association of Motor Vehicle Administrators, AAMVA Commercial Driver's license Manual, (n.d.), pages 2-28 to 2-30.

<sup>20</sup> FMCSA-ESO-06-0014 Revised February 2014.

tracks. This training fails to address “Low Clearance Warning” signs or the situations and vehicles that should be aware of this warning when operating a commercial vehicle.<sup>21</sup> For further information on highway signage and highway crossing requirements see the Highway Group Chairman’s Report in the docket for this investigation.

#### 4. FMCSA Oversight

##### 4.1 CSA and SMS<sup>22</sup>

In 2010, 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 commercial motor vehicles. It introduced a new enforcement and compliance model that allows FMCSA and its state partners to contact a larger number of carriers earlier to address safety problems before crashes occur. FMCSA also introduced a new operational model called the Safety Measurement System (SMS) SMS uses a motor carrier’s data from roadside inspections, (Including all safety-based violations), state-reported crashes, and the Federal Motor Carrier Motor Carrier Management Information System (MCMIS) to quantify performance in Behavior Analysis and Safety Improvement Categories (BASICS).

##### 4.2 CSA BASICS

Histories or patterns of high crash involvement, including frequency and severity based on information from state-reported crashes. The carrier’s measurement for each BASIC depends on the following: the number of adverse safety events (related to BASIC or crashes) the severity of violations or crashes. When the adverse safety events occurred, (events that are more recent 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). Percentiles from zero to 100 are then determined by comparing the BASIC measurements of the carrier to the measurements of other carriers in the peer group. A percentile ‘100’ indicates the worst performance. FMCSA established threshold levels, which 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. Table 2 represents the thresholds set by FMCSA, which help prioritize agency intervention and resource management. Echo Transportation is classified in the “Passenger Carriers” category.

Table 2. BASIC Thresholds


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

<sup>21</sup> See photo number 1 for a visual of the Low Clearance Warning Sign.

<sup>22</sup> CSA Methodology retrieved from [www.fmcsa.dot.gov](http://www.fmcsa.dot.gov)



Hazardous Material	80%	80%	80%
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On a carrier’s SMS profile, which is publicly available on the Safer website, a symbol<sup>23</sup>  is displayed in any designated BASIC where the carrier has exceeded the corresponding threshold. This is also referred to as having an “alert” in a BASIC. At the time of the crash, Echo did not have any alerts in the BASICS.<sup>24</sup>

### 4.3 Compliance Review and SMS History

The carrier was in the New Entrant Program. The carrier entered the program on July 13, 2011 and exited the New Entrant Program on January 14, 2013 after receiving a satisfactory compliance review on April 11, 2012. The carrier had a compliance review again on 09/22/2014 the result of both reviews was Satisfactory Ratings.

The FMCSA utilizes three main mechanisms to ensure compliance with the FMCSRs. These mechanisms include: (1) Roadside Inspections, that evaluates driver and vehicle safety, (2) Safety Audits, that is designed to educate new carriers on the regulations and ensures minimum standards have been established and (3) Compliance Reviews (CR), which evaluate the carrier’s compliance to the FMCSRs. A CR may be conducted as “focused” or “comprehensive” review.

A focused compliance review targets specific BASICS with which the carrier has demonstrated a pattern of non-compliance. FMCSA assigns the type of compliance review based on the number of BASICS the carrier has in “alert.”

A comprehensive CR may be used if the carrier sustained a fatal crash or complaint. A comprehensive CR addresses all aspects of the carrier’s operation and normally results in a safety rating. The safety rating is determined by the FMCSA using the safety rating methodology which evaluates patterns of critical or acute violations. All of Echo’s compliance reviews were comprehensive reviews.

At the time of the crash, the carrier did not have any alerts in the Safety Management System (SMS) The carrier’s last compliance review was in March of 2017. This was a comprehensive as well as post-crash review. The carrier was operating a for hire tour at the time of the crash.

The post-accident compliance review (CR) identified the following violations:<sup>25</sup>

- §391.51(b) (1) – Using a driver who has not completed and furnished an employment application. One out of 17 checked.

<sup>23</sup> Safer website at [www.fmcsa.dot.gov](http://www.fmcsa.dot.gov)

<sup>24</sup> See Motor Carrier Attachment - Echo SMS Carrier Profile

<sup>25</sup> See Motor Carrier Attachment - Echo Post-Accident CR,

- §395.8 (e) – False Record of Duty Status Report (Inaccurate) 2of 248 checked. There were no acute or critical violations noted in this review. Because of the compliance review, FMCSA issued Echo a Satisfactory Safety Rating as of March 5, 2017.

#### **4.4 Carrier Crash History**

The carrier had two reportable crashes in the 12 months prior the crash on March 07, 2017.

On 12/3/2016 a crash occurred in Dallas TX. It involved two cars and the motorcoach. One vehicle spun out of control due to rain and bounced off the center median wall and struck another car and continued to hit the motorcoach. No citation issued.

On 8/3/16 an accident occurred in Gillespie TX where a vehicle was making a left turn in front of the motorcoach. The bus driver failed to negotiate the slow down and tried to change lanes causing another vehicle to veer off the roadway. The police report did not indicate any citation was issued to the bus driver, but the company drug tested him per company policy.

### **5. Texas DPS Commercial Vehicle Enforcement Oversight**

#### **5.1 Authority:**

The Texas Highway Patrol Commercial Vehicle Enforcement (TXDPS) has authority under the Texas Statute 316.302 and 316.70 which adopts FMCSR's and directs the (TXDPS) to regulate transportation providers in the public interest, and to adopt such rules and regulations as may be necessary to do so. These regulations also provide for exemptions to the rules as they apply to agricultural carriers.

(TXDPS) rules require all intra-state carriers to comply with all state and local laws and rules governing licensing, vehicle safety, and driver safety. Regulated carriers must also comply with the parts of Title 49 Code of Federal Regulations (CFR) adopted by the (TXDPS)

The TXDPS is authorized to administer and enforce laws and rules relating to intra-state carriers. The (TXDPS) may delegate authority to staff to inspect equipment, drivers, records, files, accounts, books, and documents. The (TXDPS) may also delegate to its staff the authority to place vehicles and drivers out-of-service per Texas statute.

During compliance review investigations, uses 49 CFR Part 385 - Safety Fitness Procedures to determine the overall safety fitness of motor carriers and assigns one of three safety ratings: satisfactory, conditional, or unsatisfactory. A "satisfactory" safety rating means that a motor carrier has in place and functioning adequate safety management controls to meet the safety fitness standard prescribed in 49 CFR Part 385.5.

TXDPS has never performed a compliance review on Echo. FMCSA makes most of the Compliance Review assignments to the TXDPS as needed. TXDPS has the primary responsibility for intrastate operations of carriers in Texas. Echo is registered as an interstate carrier and as a result the compliance reviews as well as the new entrant safety audit were performed by the FMCSA.

TXDPS regularly does CVSA level five inspections on the Echo fleet at the PPOB of the carrier. The accident vehicle had three level five inspections as follows:

- Grand Prairie Police Department on July 6, 2016
- Mansfield Police Department on November 11, 2016
- TXDPS Commercial Vehicle Enforcement on December 12, 2016.

These level five inspections resulted in a CVSA inspection sticker being issued to the vehicle. These stickers indicate that the vehicle had passed all the required inspections outlined for the level five inspection.

## **5.2 Texas Department of Motor Vehicles History**

Texas Department of Motor Vehicles (TXDMV) has authority under the Texas Transportation Code 643.103(a) and Texas Administrative Code Title 43 218.169(e) to ensure that motor carriers operating commercial motor vehicles have proper insurance, licensing, and registrations for the vehicles they operate. The TXDMV issues an operating permit which is the carrier's intrastate operating authority. All motor carriers operating intrastate commercial motor vehicles on a road or highway in Texas must get a TXDMV number. TXDMV issued Echo an operating permit number of 006620250C.

The Texas operating permit is the equivalent to Federal Operating Authority or an MC Number.

TXDMV staff has conducted three complaint investigations of Echo as follows:

May 2011 - This investigation was initiated because the carrier had 31 vehicles that were being operated with Oklahoma license plates. The carrier re licensed the vehicles with Texas plates and the investigation was closed with a warning.

- August 2012 - This investigation was initiated because the carrier had failed to file their insurance with the state for 4 days and was sent a notice. The carrier had insurance during this time, but it was not on file with the State of Texas. The carrier was fined \$250.00 for this violation and the case was closed.
- August 2012 – This investigation was determined to be a duplicate complaint for the insurance filing issue listed in the complaint above and was closed.

NTSB investigators followed up with the TXDMV and no other complaints had been filed or investigated.<sup>26</sup>

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<sup>26</sup> See Motor Carrier Attachment - TXDMV Complaint Reviews 2011 and 2012.

## **Docket material**

The following attachments are included in the docket for this investigation:

### **LIST OF ATTACHMENTS**

Motor Carrier Attachment - Echo Transportation MCS-150.

Motor Carrier Attachment - Accident Driver's Driver Qualification File.

Motor Carrier Attachment - Accident Driver's CDLIS Reports.

Motor Carrier Attachment - Accident Driver's Post Crash DOT Tests.

Motor Carrier Attachment - Accident Driver's Records of Duty Status.

Motor Carrier Attachment - Accident Vehicle Maintenance File.

Motor Carrier Attachment - Post Accident Vehicle Inspection.

Motor Carrier Attachment - Diamond Tours Destination Manager Text Message.

Motor Carrier Attachment - Echo Transportation Accident Driver's PSP Report.

Motor Carrier Attachment - Echo Transportation Post Accident Compliance Review.

Motor Carrier Attachment - Echo Transportation SMS Carrier Profile.

Motor Carrier Attachment - TXDMV Complaint Reviews 2011 and 2012.

### **LIST OF PHOTOGRAPHS**

Motor Carrier Photo 1- View of Main Street Crossing Northbound from the Motorcoach View.

### **END OF REPORT**

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Michael LaPonte  
Motor Carrier Group Chairman