



**HUMAN PERFORMANCE GROUP CHAIRMAN'S  
FACTUAL REPORT**

**Baltimore, MD**

**HWY17MH007**

(24 pages)

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

**HUMAN PERFORMANCE GROUP CHAIRMAN'S  
INVESTIGATION NARRATIVE**

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**A. CRASH INFORMATION**

Location: Eastbound Frederick Avenue between South Monastery Avenue and South Morley Street, Baltimore, Baltimore County, Maryland

Vehicle #1: 2015 IC 64-passenger School Bus

Operator #1: AAAfordable, LLC

Vehicle #2: 2012 Ford Mustang

Operator #2: Private Operator

Vehicle #3: 2005 New Flyer Transit Bus

Operator #3: Maryland Transit Administration

Date: Tuesday, November 1, 2016

Time: Approximately 6:30 a.m. eastern daylight time

NTSB #: **HWY17MH007**

**B. HUMAN PERFORMANCE GROUP**

Rafael Marshall, Human Performance Investigator, Group Chairman  
NTSB Office of Highway Safety  
490 L'Enfant Plaza East, S.W., Washington, DC 20594

Thomas Bender, Detective  
Baltimore Police Department  
242 W. 29<sup>th</sup> Street, Baltimore, MD 21211

**C. CRASH SUMMARY**

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

## D. DETAILS OF THE HUMAN PERFORMANCE INVESTIGATION

The Human Performance factual investigation focused on the behavioral, medical, operational, and environmental factors associated with the driver of the 2015 IC school bus. An investigation into the background of the 2005 New Flyer transit bus driver was also conducted.

### 1. School Bus Driver

#### 1.1. Background

##### 1.1.1. Driver's License History

At the time of the crash, the school bus driver was 67 years old, 5'11" tall, and weighed 202 pounds.<sup>1</sup> He had a Class A commercial driver's license (CDL) with endorsements for triples and doubles, tank trailers, school buses, and passengers. An "M" restriction on his license indicated that he was prohibited from operating Class A passenger vehicles.<sup>2</sup> At the time of the crash, the school bus driver had no points on his license. His license was valid from November 2013 until June 2018. According to records obtained from the Maryland Motor Vehicle Administration (MVA), the bus driver obtained his most recent driver's license number in 2004, after having three previous license numbers revoked or canceled (See Section 5 of this report). **Table 1** lists pertinent activities on that license since 2004.

The driver also possessed a medical certificate that was valid from June 2016 until June 2017; however, he never provided a copy of the certificate to the MVA as required.<sup>3</sup> As a result, after the bus driver's previous medical certificate expired on August 31, 2016, the MVA sent the driver a letter, dated September 8, 2016, stating that, as of September 1, he was no longer authorized to drive a commercial vehicle.<sup>4</sup> Furthermore, it stated that if the bus driver did not either submit a valid medical certificate or downgrade to a noncommercial license by October 10, 2016, he would lose his driving privileges entirely.<sup>5</sup> Federal regulations allow state driver licensing authorities (SDLAs) up to 60 days to downgrade a CDL in cases where the driver fails to submit a valid medical certificate on time.<sup>6</sup> According to the Deputy Administrator of the MVA, most states do provide commercial drivers with a grace period of up to 60 days to obtain a medical certificate and submit it to the SDLA before the downgrade is officially recorded.<sup>7</sup>

On October 1, 2016, the Maryland *Driving Privilege Preservation Act of 2016* went into effect, which required the MVA to downgrade a CDL to a noncommercial driver's license when

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<sup>1</sup> Attachment 1 – Driver's license for school bus driver.

<sup>2</sup> <http://www.mva.maryland.gov/drivers/apply/license-class-codes.htm>. Class A passenger vehicles are articulated vehicles designed to carry passengers.

<sup>3</sup> Attachment 2 - Medical certificate for school bus driver.

<sup>4</sup> Attachment 3 - MVA Notice of medical examiner's certificate expiration letter. This letter was found opened in the visor of the driver's personal vehicle, indicating that the driver received it and had viewed its contents.

<sup>5</sup> 49 Code of Federal Regulations 383.33 requires drivers who receive notification that their license has been canceled, suspended, or revoked to notify the carrier by the end of the next business day. There is no evidence that the school bus driver notified AAAfordable of the letter.

<sup>6</sup> 49 Code of Federal Regulations 383.73.

<sup>7</sup> This grace period benefits long haul commercial drivers, who might be away from home for extended periods of time.

an individual fails to submit a valid medical certificate, as opposed to cancelling the individual's driving privileges entirely. According to the Deputy Administrator of the MVA, because the bus driver's medical certificate expired so closely to the effective date of the new law, and the MVA was transitioning processes to require a downgrade rather than a cancellation, the process to downgrade the bus driver was extended. Ultimately, the bus driver's license was recorded as downgraded on November 2, 2016, and a notice was generated and distributed through the MVA's license monitoring system informing subscribers of the change in license status.<sup>8</sup>

In December 2016, the MVA modified its alert system to remove the 60-day grace period, so that subscribers are notified of changes to a commercial driver's medical certification status the day after the medical certificate expires. In addition, the MVA conducted an audit of its data to ensure that all commercial drivers licensed in the state possessed a current medical certificate.

**Table 1.** Pertinent activity on the school bus driver's license since 2004, based on records obtained through the Federal Bureau of Investigation (FBI) National Crime Information Center (NCIC).

<b>Pertinent Activity for Current License</b>	<b>Date of Action/ Violation</b>	<b>Date of Conviction</b>	<b>Source</b>
CDL downgraded to a noncommercial driving license	11/2/2016	N/A	MVA
Driving a vehicle with canceled/suspended/revoked registration	7/28/2015	11/3/2015	NCIC
Exceeding maximum speed limit by 10 mph	1/19/2012	6/13/2012	NCIC
Failing to carry registration card in vehicle	1/19/2012	6/13/2012	NCIC
Displaying registration plate issued to another vehicle or person	1/19/2012	6/13/2012	NCIC
Failing to notify the MVA within 30 days of a change in name/address	1/19/2012	6/13/2012	NCIC
Driving a vehicle with canceled/suspended/revoked registration	6/12/2011	9/16/2011	NCIC
Operating motor vehicle while operator/occupant not restrained	4/29/2011	8/8/2011	NCIC
Operating motor vehicle while operator/occupant not restrained	3/26/2011	5/25/2011	NCIC
Operating motor vehicle while operator/occupant not restrained	11/5/2009	3/29/2010	NCIC
Passes school bus knowledge test	8/22/2008	N/A	NCIC
Operating motor vehicle without proper registration plates/stickers	6/20/2007	1/14/2008	NCIC
Driving an unregistered vehicle	6/20/2007	1/14/2008	NCIC
Operating motor vehicle while operator/occupant not restrained	11/6/2004	6/17/2005	NCIC
Successfully obtains license after social security verification	9/1/2004	N/A	NCIC

## 2. Work History

The school bus driver was working for AAAfordable Transportation at the time of the crash. He was originally hired by AAAfordable Transportation in May 2014. He stayed with AAAfordable until May 2016, when he was hired by Reliable Transportation. He stayed with Reliable until August 2016, at which time he returned to AAAfordable. Please see Table 6 of the Motor Carrier Group Chairman's factual report for a more comprehensive list of this driver's work history.

<sup>8</sup> Meeting with the MVA Deputy Administrator, February 1, 2017.

## 1.2. Crash Trip

According to records obtained from AAAfordable Transportation, on November 1, 2016, the driver clocked in at 5:57 a.m. The driver's "Route Detail Report" for that day indicated that he was scheduled to drive bus number 1876 on run "039.703."<sup>9</sup> This run required the driver to pick up 18 students and drop them off at Dallas F. Nicholas Senior Elementary School. Bus aides are required to accompany drivers on their scheduled routes.<sup>10</sup> According to the aide assigned to the bus on the day of the crash, she arrived at the AAAfordable Transportation facility about 5:45 a.m., and the driver was already present.<sup>11</sup> She retrieved the route sheet that she used to record the students that were picked up on that day, then she boarded the bus. Based on physical evidence, it appeared that she sat in the second-row seat in the left aisle, behind the driver. They were scheduled to pick up the first student at 6:29 a.m. After leaving the AAAfordable Transportation facility, they proceeded directly to their first scheduled stop. They arrived at the destination and waited about 3 minutes, but the student did not appear. They then proceeded east on Fredrick Avenue to their second scheduled stop. According to the aide, as she was recording on her route sheet that the first student was not picked up, she felt an "abnormal bump."<sup>12</sup> She stated that this "bump" was not preceded by braking or swerving by the school bus. She stated that she was not overly concerned by this. She turned to her right, looked out the rear emergency door windows, and asked the driver "hey, what was that?" She did not see anything when she looked out the window, and the driver did not answer her question.<sup>13</sup> She then felt the bus accelerating. She got up from the seat and braced her hand on a seat on the opposite aisle while trying to observe the bus driver. She stated, however, that she was unable to see the driver from her position. The crash with the MTA bus occurred shortly afterwards. According to the aide, she did not experience any sensations akin to the application of brakes prior to the collision with the MTA bus.

After the crash, the bus aide found herself facing the left-hand side of the bus. She lifted herself up to a standing position, and observed that the bus driver was dead. She screamed and began crying. She noticed her phone at the front of the bus near the bus driver, picked it up, and evacuated through the emergency door at the back of the bus. She fell out of the bus and began screaming for help. She dialed 9-1-1 on her phone at 6:28 a.m., and attempted to find help for the bus driver.<sup>14</sup>

According to the bus aide, she had worked with this driver about 3 times prior to the accident trip. There were no incidents during the previous trips. Conversations between the bus aide and the driver were generally sparse and superficial. When there was conversation, it

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<sup>9</sup> Attachment 4 - Route of school bus driver.

<sup>10</sup> According to the bus aide, her role was to maintain student safety in the bus so that the driver can concentrate on driving.

<sup>11</sup> Attachment 5 – Interview with bus aide.

<sup>12</sup> The bus aide stated that she later learned that this was when the school bus collided with the Ford Mustang. According to the bus aide, the roadways on the route are not smooth, and being tossed about in one's seat was a normal occurrence; however, this 'bump' felt different.

<sup>13</sup> The bus aide commented that this might have been because she was still looking behind her when she asked the question.

<sup>14</sup> The bus aide allowed investigators to view her phone and determine the exact time she completed the 9-1-1 call. The phone also indicated that 9-1-1 dispatch called her back at 6:30 a.m.

generally centered around the students and about his wife. She stated she never saw the driver take medication. The radio on the bus was not on at the time of the crash.

### **1.3. Activities Prior to the Crash**

**Table 2** describes the driver's check-in / check-out times at AAAfordable Transportation.<sup>15</sup> The driver's phone was recovered in his personal vehicle. Information from the phone was extracted using forensic software.<sup>16</sup> The extraction revealed that the bus driver rarely used his phone; therefore, investigators were unable to use the data to reconstruct a sleep/wake schedule for the driver.

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<sup>15</sup> Attachment 6 - School bus driver timesheet.

<sup>16</sup> See Recorders Specialist's Factual Report in the docket for this investigation.

**Table 2.** Driver precrash work schedule, based on records obtained from AAAfordable Transportation.

Thursday October 27		
<u>Time</u>	<u>Description</u>	<u>Source</u>
6:06 a.m.	Checked into morning shift	AAAfordable Transportation records
8:35 a.m.	Checked out of morning shift	AAAfordable Transportation records
2:06 p.m.	Checked into afternoon shift	AAAfordable Transportation records
4:02 p.m.	Checked out of afternoon shift	AAAfordable Transportation records
Friday October 28		
<u>Time</u>	<u>Description</u>	<u>Source</u>
6:09 a.m.	Checked into morning shift	AAAfordable Transportation records
8:33 a.m.	Checked out of morning shift	AAAfordable Transportation records
2:09 p.m.	Checked into afternoon shift	AAAfordable Transportation records
Missing time	Checked out of afternoon shift	AAAfordable Transportation records
Saturday October 29		
3:39 p.m.	Outgoing call	Phone records
Sunday October 30		
5:10 a.m.	Outgoing text	Phone records
Monday October 31		
<u>Time</u>	<u>Description</u>	<u>Source</u>
5:47 a.m.	Checked into morning shift	AAAfordable Transportation records
8:30 a.m.	Checked out of morning shift	AAAfordable Transportation records
2:04 p.m.	Checked into afternoon shift	AAAfordable Transportation records
3:57 p.m.	Checked out of afternoon shift	AAAfordable Transportation records
Tuesday November 1		
<u>Time</u>	<u>Description</u>	<u>Source</u>
5:57 a.m.	Checked into morning shift	AAAfordable Transportation records
6:30 a.m.	Crash occurred	

#### 1.4. General Health

Investigators obtained the driver’s health records from his primary care physician, whom he had been seeing since 2010. His last visit was in October 2015. His records show a history of diabetes, hypertension, epilepsy, and noncompliance with his medication regimen. The records included a form from Concentra, dated February 9, 2015, requesting additional information on the driver’s diabetes. This indicates that his primary care physician knew of the driver’s occupation. Records from 2011 show that the driver was counseled by his physician to see a neurologist regarding his seizures.

Investigators also obtained the driver’s 2015-2016 Department of Transportation commercial driver medical examination forms (long forms) from Concentra. The driver was examined at Concentra on February 9, 2015. Under the driver’s health history, he checked “yes”

for “surgery,” and “no” for all other health issues, including seizures/epilepsy, diabetes, hypertension, and heart disease. The medical examiner’s comments state that the driver claimed that he did not smoke, drink ethanol, have allergies, or took medications. His acuity was 20/30 in either eye, and his binocular vision was 20/25. His field of view for each eye was 85 degrees, which was above the threshold of 70 degrees. His blood pressure was 132/86, which is below the threshold for hypertension. Concentra conducted a urinalysis, then administered a glucosuria fingerstick test, which suggested diabetes; as a result, Concentra qualified the driver for only 3 months (until May 19, 2015) and requested further information and testing regarding diabetes from his driver’s primary care physician. The driver’s files include a signed consent form, dated February 9, allowing Concentra to request health information from his primary care physician. The records indicate that Concentra did not receive a response from the driver’s primary care physician until August 2015. The response indicated that the driver controlled his diabetes with medication, did not inject insulin, checked his blood glucose level daily, and did not have a history of diabetic complications and hypoglycemic episodes. The response did not mention any other health issues pertaining to the driver.

The driver was examined again at Concentra in June 2015. The driver again did not indicate a history of medical conditions, such as seizures/epilepsy, diabetes, hypertension, or heart disease. His blood pressure was recorded as 138/86, which is slightly below 140/90, the FMCSA’s threshold for hypertension. The driver’s urinalysis again suggested diabetes, and as a result, Concentra withheld granting the driver a medical certificate until a response was received for the driver’s primary care physician. The driver’s files include a second signed consent form allowing Concentra to request health information from his primary care physician. The driver was eventually issued a medical certificate in August 2015 after a response was received from the driver’s primary care physician. The medical certificate was valid for one year, the maximum allowed for school bus drivers.

The driver’s most recent long form from Concentra was dated June 2016. Under the driver’s health history, he checked “yes” for having a history of tobacco use, having broken a bone, and having spent a night at the hospital. The driver checked “no” for all other health issues listed, including seizures/epilepsy, diabetes, hypertension, and heart disease. His height and weight were measured as 5-feet 11-inches, and 195 pounds, equating to a BMI of 27. The driver’s urinalysis results did not suggest signs of diabetes. His blood pressure was recorded as 155/86, indicating hypertension. The uncorrected vision of his right eye was 20/40, and that of his left eye was 20/20. His binocular vision was listed as 20/20. The field of view for each eye was 85 degrees. The driver was cleared to operate a motor vehicle for one year.

The Medical Factual Report, which can be found in the docket for this investigation, contains additional information on the school bus driver’s health history.

#### **1.4.1. Medications**

Health records obtained from the driver’s primary care physician lists medications prescribed to the driver; however, it is not known which of these prescriptions were filled. NTSB investigators canvassed pharmacies near the driver’s home and found three that filled prescriptions for the driver. None filled prescriptions for this driver within the past year. His medical records



indicate that the driver was noncompliant with his medication regimen. See the Medical Factual Report for further information.

### **1.4.2. Toxicology**

A sample of the bus driver's blood and urine sent to the Federal Aviation Administration (FAA) Bioaeronautical Sciences Research Laboratory for further analysis. The results of the analyses were negative for alcohol and common drugs of abuse.<sup>17,18</sup> Medication used to treat seizures was found in the driver's blood and urine, and a significant amount of glucose was also detected in the driver's urine.

### **1.4.3. Drug Testing**

A history of the driver's drug test records was obtained from Baltimore City Public Schools (BCPS) and AAAfordable (**Table 3**).<sup>19</sup> Although not comprehensive, there was no evidence that the driver abused illicit drugs, or that he drank alcohol prior to driving a commercial vehicle.

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<sup>17</sup> These include but are not limited to amphetamines, opiates, marihuana, cocaine, phencyclidine, benzodiazepines, barbiturates, antidepressants, and antihistamines.

<sup>18</sup> Attachment 7 - Post-crash toxicology report for school bus driver.

<sup>19</sup> The records obtained from AAAfordable Transportation only included the results of one drug test from September of 2015 for this driver. The urinalysis results were negative for five classes of abused drugs.

**Table 3.** Summary of drug testing records for the school bus driver, based on records obtained from Concentra, Baltimore City Public Schools, and school bus carriers.

Date	Reason	Type	Results	Employer	Source
7/19/2016	Post Accident	Drugs	Negative	Reliable	Baltimore City Public Schools
6/2/2016	Pre-employment	N/A	No records	Reliable	Reliable
5/17/2016	Pre-employment	N/A	Negative	Y&L	Y&L
4/11/2016	Pre-employment	N/A	Negative	First Transit	First Transit
2/8/2016	Random	Drugs	Negative	AAAfordable	Baltimore City Public Schools
9/24/2015	Post Accident	Drugs	Negative	AAAfordable	AAAfordable
8/31/2015	Pre-employment	N/A	Negative	AAAfordable	AAAfordable
1/14/2015	Random	Drugs	Negative	AAAfordable	Baltimore City Public Schools
2/3/2014	Pre-employment	N/A	Negative	AAAfordable	AAAfordable
10/3/2013	Reasonable suspicion	N/A	Negative	Barber	Barber Transportation
7/19/2013	Random	N/A	N/A	Barber	Barber Transportation
5/13/2013	Random	Drugs	Negative	C&T	Baltimore City Public Schools
3/13/2013	Random	N/A	N/A	N/A	Baltimore City Public Schools
4/16/2012	Post Accident	Drugs	Negative	N/A	Baltimore City Public Schools
4/16/2012	Post Accident	Alcohol	Negative	N/A	Baltimore City Public Schools
3/2/2012	Post Accident	Drugs	Negative	Citywide	Baltimore City Public Schools
2/7/2012	Post Accident	Drugs	Negative	Citywide	Baltimore City Public Schools
11/15/2011	Random	Drugs	Negative	Citywide	Baltimore City Public Schools
10/14/2011	Post Accident	Drugs	Negative	Citywide	Baltimore City Public Schools
10/14/2011	Post Accident	Alcohol	Negative	Citywide	Baltimore City Public Schools
10/10/2011	Pre-employment	Drugs	Negative	Citywide	Baltimore City Public Schools
9/7/2011	Post Accident	Alcohol	Negative	Reliable	Baltimore City Public Schools
9/7/2011	Post Accident	Drugs	Negative	Reliable	Baltimore City Public Schools
1/12/2011	Pre-employment	Drugs	Negative	Reliable	Baltimore City Public Schools
1/12/2011	Pre-employment	Alcohol	Negative	Reliable	Baltimore City Public Schools
4/2/2009	Post Accident	Drugs	Negative	N/A	Baltimore City Public Schools
9/2/2008	Pre-employment	Drugs	Negative	C&T	Baltimore City Public Schools

## 1.5. BCPS Oversight of Driver Traffic, Criminal, and Crash History

### 1.5.1. Code of Maryland Regulations

The Code of Maryland Regulations (COMAR) on Student Transportation, Section 13A.06.07, requires school districts to monitor the traffic violations, criminal record, and crash history of its drivers to identify those with disqualifying conditions.<sup>20</sup>

Per COMAR, a driver shall be disqualified from driving a school bus if his or her driving record shows three points. The supervisor of transportation may allow a driver the three points to continue operating a school bus by placing a letter in the driver file with sufficient reasons for continued qualification; however, no driver may be qualified with more than three points on his or her driving record.

Regarding criminal history, COMAR states that a school system may not permit an individual to operate a school vehicle if the individual has been convicted of a crime, or if criminal charges are pending, for a crime involving:

1. Child abuse or neglect
2. Contributing to the delinquency of a minor
3. Moral turpitude, if the offense bears directly on the individual's fitness to transport minors
4. An alcohol or controlled substances offense defined in federal or State law, unless the supervisor of transportation determines and reports the determination in writing, to the Department's Office of Student Transportation, that the permanent disqualification should not apply because mitigating circumstances exist
5. A crime of violence (not defined under 13A.06.07)<sup>21</sup>
6. Any action that may endanger the safety of students being transported
7. Driving a school vehicle or school charter vehicle while under the influence of a controlled substance, or while impaired or under the influence of alcohol
8. Driving a vehicle other than a school vehicle or school charter vehicle while under the influence of a controlled substance, or while impaired or under the influence of alcohol
9. Has a criminal history that, in the opinion of the supervisor of transportation, makes the individual unfit for employment

With exceptions for #4 and #8, an individual who pleads guilty or nolo contendere with respect to, is placed on probation before judgment with respect to, or is convicted of an offense listed above is permanently disqualified from operating a school vehicle in Maryland.

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<sup>20</sup> Code of Maryland Regulations, School Vehicle Driver Disqualifying Conditions and Termination, <http://www.dsd.state.md.us/comar/comarhtml/13a/13a.06.07.07.htm>. Accessed March 20, 2017.

<sup>21</sup> “Crime of violence,” this term is not defined under COMAR Section 13A.06.07 (governing school bus driver qualifications), as it is in sections 13A.08.01.18 (governing students) and 13A.12.01.02 (governing school personnel). The term is also defined differently in different parts of the *COMAR*. (For example, see sections 10.02.02.01, 29.03.01.01, and 29.05.01.01.).

Additionally, misfeasance, incompetence, insubordination, or any act of omission that adversely affects transportation or safety may be grounds for disqualification and termination by the supervisor of transportation.

With regards to crashes, a driver may be disqualified for failing to report a crash as soon as practicable, with the duration of the disqualification at the discretion of the supervisor of transportation. All crashes involving an incapacitating or fatal injury, or appreciable damage (in excess of \$1,500), must be reviewed by the school district, and drivers involved in these crashes are required to meet with the supervisor of transportation and attend appropriate classroom instruction if directed to do so. A driver who has had two preventable crashes involving personal injury or appreciable damage in a 24-month period may not operate a school vehicle for 5 years from the date of the last crash, unless the supervisor of transportation places a letter in the driver's personnel file documenting sufficient reasons to retain the driver. A driver with more than two preventable crashes involving personal injury or appreciable damage in any 24-month period is permanently disqualified from operating a school vehicle in Maryland. The names of all disqualified drivers are placed in a confidential and searchable computer database. Additional information on this database can be found in the Motor Carrier Group Chairman's factual report.

### **1.5.2. BCPS Oversight of Driver License History**

To comply with COMAR, BCPS subscribed to the MVA License Monitor System (LMS) to alert them to changes in the license status of all school bus drivers working for the district. The LMS service is free for government entities; nongovernment entities may subscribe for a small fee. Subscribers may opt to receive alerts daily, weekly, or monthly. Based on logs supplied by the MVA, BCPS was subscribed to daily alerts. The periodic alerts include drivers whose licensing status has changed (e.g., canceled, downgraded), whenever there is a traffic conviction (including probation before judgement), and expired medical card (for commercial drivers). Alerts are sent to the subscriber via an email link, which takes the subscriber to a secured portal from which the traffic records are accessible. Annual reports are also sent to each subscriber on all selected drivers. MVA records indicate that BCPS received annual reports on the accident bus driver on November 2014 and November 2015. None of these reports contained information that would require BCPS to take action on the bus driver. In 2016, no alerts on the bus driver were sent to BCPS until November 2, when the driver's license was downgraded to a noncommercial driver's license due to his failure to submit his latest medical certificate to the MVA.

### **1.5.3. BCPS Oversight of Driver Criminal History**

The Maryland Criminal Justice Information System (CJIS) is maintained and jointly overseen by the Department of Public Safety and Correctional Services (DPSC) and the Chief Judge of the Court of Appeals, with the advice of the Criminal Justice Information Advisory Board.<sup>22</sup> CJIS is the repository for criminal history information for all Maryland residents.<sup>23</sup> CJIS is populated any time a biometric scan is conducted on an individual who has been formally

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<sup>22</sup> [www.courts.state.md.us/access/legal7-5-01.pdf](http://www.courts.state.md.us/access/legal7-5-01.pdf). Accessed March 20, 2017.

<sup>23</sup> According to 28 Code of Federal Regulations 20.3, criminal history record information means information collected by criminal justice agencies on individuals consisting of identifiable descriptions and notations of arrests, detentions, indictments, informations (sic), or other formal criminal charges, and any disposition arising therefrom, including acquittal, sentencing, correctional supervision, and release.

charged with a criminal offense, and any time a status change occurs to any one of those charges. Only authorized entities may access the information contained in CJIS. Authorized entities may subscribe to receive secured email alerts on certain individuals. An alert, or “notem,” is sent whenever a criminal history status change occurs. In order to access the notem, the authorized entity would click on a link provided in the email, then enter a user name and password that would grant access to an individual’s criminal history record.

The BCPS Office of Pupil Transportation was authorized to receive criminal history alerts on all employed and contracted school bus drivers from CJIS.<sup>24</sup> In the 5 years before the Baltimore crash, the BCPS was alerted to 6 arrests of the school bus driver, listed in **Table 4**. As previously mentioned, Section 13A.06.07 of COMAR does not define “crime of violence;” therefore, it is unclear whether the conviction stemming from the December 2011 second degree assault should have disqualified the bus driver. No other conviction in the bus driver’s criminal history would have disqualified him from operating a school bus.

**Table 4.** Criminal charges since 2004, based on records obtained through the Maryland Department of Public Safety and Correctional Services’ Criminal Justice Information System (CJIS).

Arrest Date	Charge	Disposition	Source
2/4/2014	Theft of less than \$1000	Dismissed	CJIS
10/2/2012	Violation of protection order	Guilty	CJIS
8/1/2012	Violation of protection order	Guilty	CJIS
7/25/2012	Violation of protection order	Probation before judgement	CJIS
1/22/2012	Violation of protection order	Probation before judgement	CJIS
12/3/2011	Second degree assault and carrying a deadly weapon	Guilty	CJIS

Along with COMAR, BCPS utilized an in-house document entitled, “Screening Criteria for Background Investigations,” to determine suitability of employment.<sup>25</sup> This document is more specific than COMAR regarding the types of felonies, misdemeanors, and actions that may disqualify a driver. For example, it lists a conviction of first degree assault, but not second degree assault, as a disqualifying factor. It also lists convictions of theft and any misdemeanor arrest or conviction that brings into question a person’s suitability. According to the document, any employee, service provider or any person routinely in school system facility is subject to an administrative review by the Office of Employee and Labor Relations and administrative action up to an including termination/dismissal for the following:

1. Arrested for or charged with a felony.
2. Arrested or charged with misdemeanor that brings into question a person’s suitability.
3. Received a probation before judgment or deferred sentences for a charge that brings into question a person’s suitability.
4. Investigation, arrest or charge where such action may bring BCPS into disrepute.

<sup>24</sup> Baltimore City Public Schools is authorized through Family Law Article, §5-551, Annotated Code of Maryland; and through the COMAR Section 12.15.02.07

<sup>25</sup> Attachment 8 - BCPS Screening Criteria for Background Investigations.

Although the bus driver's CJIS records indicated convictions and arrests that met one or more of the listed criteria, the bus driver's employment records did not document the occurrence or resolution of any administrative review. In addition, although his employment records indicate that the bus driver's criminal record was checked as part of pre-employment screening, it cannot be determined from the available evidence if the Office of Pupil Transportation performed in-service criminal history screening on the driver. The BCPS did not print or otherwise document the receipt of new alerts, and the CJIS system does not track if an alert has been opened by a recipient.

#### **1.5.4. BCPS Oversight of Driver Crash History**

To comply with COMAR, BCPS was required to monitor the crash history of all school bus drivers working for the city. A five-year history of incidents and crash involving the bus driver, compiled from several sources, suggests that BCPS was aware of most of the crashes, but were largely unaware of incidents that did not involve property damage (see **Table 5**). Two of these incidents occurred in front of employees of two separate carriers, one of whom was the driver's supervisor. There appeared to be no formal procedure in place to inform the school district of an incident except through the driver.

BCPS documents indicated that in September 2015, the driver sideswiped a vehicle and failed to report the crash. The driver left a note on the car, with the bus number and the phone number of the bus contractor, but he did not call the police before leaving the scene. BCPS learned of the crash from the owner of the vehicle. BCPS suspended the driver for three months, reinstating him in December of that year. This action was consistent with COMAR, which states that a driver may be disqualified for failing to report a crash as soon as practicable, with the duration of the disqualification at the discretion of the supervisor of transportation.

According to COMAR, all crashes involving an incapacitating or fatal injury, or appreciable damage, must be reviewed by the school district, and drivers involved in these crashes are required to meet with the supervisor of transportation and attend appropriate classroom instruction if directed to do so. Because "appreciable damage" is defined as damage exceeding \$1,500, the school district was obliged to include a damage estimate in the driver's records. However, the NTSB found only one damage estimate among the driver's files, for a crash that occurred September 2011. The damage estimate for this crash was under the \$1,500 threshold and did not require a meeting with the supervisor of transportation or appropriate classroom instruction.

According to COMAR, a driver who has had two preventable crashes involving personal injury or appreciable damage in a 24-month period may be disqualified from operating a school bus for 5 years from the date of the last crash, unless the supervisor of transportation places a letter in the driver's personnel file documenting sufficient reasons to retain the driver. Furthermore, COMAR states that a driver with more than two preventable crashes involving personal injury or appreciable damage in any 24-month period is permanently disqualified from operating a school vehicle in Maryland. In the past 5 years, the bus driver had twice been involved in two or more crashes within a two-year span. From 2011 to 2012, the driver was involved in three preventable crashes. As mentioned, in only one of these crashes was the damage financially assessed. Because BCPS did not record or retain damage estimates on the other three crashes, BCPS could not

determine whether any two met the criteria to disqualify the driver for 5 years, or if three of the four crashes met the criteria to permanently disqualify the driver from operating school buses. In 2015 and 2016, the bus driver was once again involved in two preventable crashes; yet again, BCPS did not record or retain damage estimates on the crashes. For information on this topic, see the Motor Carrier Group Chairman’s Factual Report.

**Table 5.** Known incidents involving the school bus driver in the five years prior to the Baltimore crash.

Date	Description	Vehicle	Employer	Source
10/24/2016	Had a seizure-like event in AAAfordable office	N/A	AAAfordable	Baltimore Fire Department
7/19/2016	Side-swiped vehicle while making a left turn	School bus	Reliable	Reliable / Insurance Services Office
6/30/2016	Suffered a seizure while talking with his supervisor (was not in a vehicle)	N/A	Reliable	Baltimore Fire Department
9/23/2015	Side-swiped vehicle and did not report crash; suspended for 3 months by BCPS	School bus	AAAfordable	Baltimore City Schools
7/28/2015	Traffic Stop / Services rendered	Private vehicle	N/A	Howard County Police
2/9/2014	"Suffered a medical condition" and crashed on Long Gate Parkway	Private vehicle	N/A	MVA accident report
10/3/2013	Became "Unresponsive/ Unconscious" while returning children from a zoo field trip	School bus	Citywide	Baltimore Fire Department / Witness
4/16/2012	(Crash history unavailable, but driver was subject to post-crash test on 4/16/2012)	School bus	N/A	Baltimore City Schools <sup>26</sup>
3/2/2012	Side-swiped another vehicle	School bus	Citywide	Baltimore City Schools
2/7/2012	(Crash history unavailable, but driver was subject to post-crash test on 2/7/2012)	School bus	Citywide	Baltimore City Schools <sup>26</sup>
1/18/2012	Auto insurance claim	Private vehicle	N/A	Insurance Services Office
10/14/2011	"Blacked out" and had crash with a bus aide and a child on board	School bus	Barber	Baltimore City Schools
9/7/2011	Side-swiped another vehicle	School bus	Reliable	Baltimore City Schools

<sup>26</sup> BCPS drug test records show that post-crash tests were required on these dates, but associated crash records were absent. See Table 3 for more information.

## **2. Maryland Transit Authority Driver**

### **2.1. Background**

The driver of the MTA bus was 33 years old. She held a class B CDL that was issued September 2016, and expired in January 2022. She had a passenger endorsement and was required to wear corrective lenses when behind the wheel.<sup>27</sup>

The driver had worked for the MTA since June 2005. Her first position was as a fare inspector for MTA light rail. She then applied for and was hired as a bus operator in 2006. She completed 8 weeks of orientation training, which consisted of 2 hours of classroom time and 6 hours behind-the-wheel each day. According to her training record, she had completed several required training courses since becoming a driver, including ones on driver distraction, workplace violence, accident prevention, and racial acceptance. She had also attended 3 post-accident training courses and one remedial training course in the past 5 years.

### **2.2. Crash Trip**

According to her run schedule, the MTA driver's run on the day of the crash began at 4:57 a.m.<sup>28</sup> She would have worked until 8:08 a.m., taken a break, then continued work from 8:55 a.m. until 12:38 p.m. The MTA bus involved in the crash was equipped with surveillance video cameras that continuously recorded the interior and exterior of the bus, and a hard drive containing the video was recovered by MTA post-crash. The interior video showed the bus driver on her route, heading west on Fredrick Avenue. The driver was looking forward, was not using a personal electronic device, and was not interacting with passengers. As she approached the 3800 block of Fredrick Avenue, a school bus heading east approaches at a high rate of speed. One second prior to the crash, the transit bus driver reacts by conducting a controlled evasive action by turning the steering wheel to the right. The transit bus moves to the right and begins to enter the bike lane. The school bus is seen moving from the eastbound lane to the turn lane in the middle of the Avenue. The school bus then encroaches into the westbound lane and collides with the MTA bus. The MTA bus driver appeared alert and attentive throughout the video.

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<sup>27</sup> Attachment 10 - Driver's license for MTA bus driver.

<sup>28</sup> Attachment 11 - Route of MTA bus driver.



### 2.3. Activities Prior To The Crash

**Table 6.** Describes the MTA driver’s work schedule, based on MTA records and the driver’s phone records.

Thursday October 27		
Time	Description	Source
3:46 a.m.	Began scheduled run	MTA
5:10 a.m.	First phone usage of day (phone call)	Phone records
7:15 a.m.	Bus hit by a dump truck backing out of side street	MTA
9:07 a.m.	Completed post-accident test	MTA
9:17 a.m.	Ended work day	MTA
7:31 p.m.	Last phone usage of the day (text message)	Phone records
Friday October 28		
Time	Description	Source
6:24 a.m.	First phone usage of the day (phone call)	Phone records
	Post-accident training	MTA
11:11 p.m.	Last phone usage of the day (phone call)	Phone records
Saturday October 29		
Time	Description	Source
12:29 p.m.	First phone usage of the day (text message)	Phone records
	Regular day off	
11:17 p.m.	Last phone usage of the day (text message)	Phone records
Sunday October 30		
Time	Description	Source
10:06 a.m.	First phone usage of the day (text message)	Phone records
	Regular day off	
5:51 p.m.	Last phone usage of the day (phone call)	Phone records
Monday October 31		
Time	Description	Source
7:44 a.m.	First phone usage of the day (phone call)	Phone records
	Post-accident training	
9:53 p.m.	Last phone usage of the day (text message)	Phone records
Tuesday November 1		
Time	Description	Source
4:57 a.m.	Began scheduled run	MTA
5:00 a.m.	First phone usage of the day (phone call)	Phone records
6:30 a.m.	crash occurred	

### 2.4. General Health

NTSB investigators obtained the MTA driver’s Department of Transportation medical certificate and long form from Concentra, dated May 2016.<sup>29</sup> The MTA driver indicated on the long form that she had a history of migraines. Her blood pressure was 90/60 (normal). Her corrected vision was 20/15 for both eyes and her hearing was normal. She was 5’4” and her weight was 215, which equated to a BMI of 37. The MTA bus driver was determined to meet the fitness

<sup>29</sup> Attachment 12 - Medical certificate for MTA bus driver.

qualifications specified in 49 Code of Federal Regulations 391.41, and granted a 2-year certificate. See the Medical Factual Report for further information.

## 2.5. Toxicology

The NTSB obtained a sample of the MTA driver’s blood and sent it to the FAA for further analysis. The results indicated that she did not have alcohol or common drugs of abuse in her system at the time of the crash.<sup>30,31</sup>

## 2.6. Drug Testing

According to MTA records, the MTA driver was subject to a random drug test in March of 2016. She tested negative for illicit drugs. She was subject to a random alcohol test in July 2016 and tested negative.

## 3. General Factors

### 3.1. Weather

The closest official National Weather Service weather station to the crash site was located approximately 3.5 miles southeast, near Inner Harbor, Baltimore. Data for observations closest to the time of the crash are shown in Table 7a-b.

Table 7a. Weather Data from KDMH.

<b>Time (EST)</b>	5:54 a.m.
<b>Temperature</b>	46.0° F
<b>Dew Point</b>	37.9° F
<b>Humidity</b>	73%
<b>Pressure</b>	30.33 in
<b>Wind Dir.</b>	North
<b>Wind Speed</b>	calm
<b>Wind Gust Speed</b>	N/A
<b>Precipitation</b>	N/A
<b>Events</b>	None
<b>Conditions</b>	Clear

Table 7b. Weather Data from KDMH.

<b>Time (EST)</b>	6:54 a.m.
<b>Temperature</b>	46.9° F
<b>Dew Point</b>	39.0° F
<b>Humidity</b>	74%

<sup>30</sup> These include but are not limited to amphetamines, opiates, marijuana, cocaine, phencyclidine, benzodiazepines, barbiturates, antidepressants, and antihistamines.

<sup>31</sup> Attachment 9 - Post-crash toxicology report for MTA bus driver.

<b>Pressure</b>	30.32 in
<b>Wind Dir.</b>	North
<b>Wind Speed</b>	calm
<b>Wind Gust Speed</b>	N/A
<b>Precipitation</b>	N/A
<b>Events</b>	None
<b>Conditions</b>	Clear

### 3.2. Illumination

According to the United States Naval Observatory, for November 1, 2016, morning civil twilight (civil dawn) occurred at 7:07 a.m., and sunrise occurred at 7:35 a.m. Morning civil twilight begins when the geometric center of the sun is 6° below the horizon. The crash occurred at approximately 6:30 a.m. in darkness, prior to dawn or sunrise. Roadway lighting was in place in place the area of the crash, see the Highway Factors Factual Report in this docket for this investigation.

## 4. Epilepsy and Driving

### 4.1. Federal Regulations

Epilepsy or any other condition which is likely to cause loss of consciousness or any loss of ability to control a commercial motor vehicle is a disqualifying factor under 49 *Code of Federal Regulations* Part 391.41(b)(8). According to Appendix A to part 391, entitled “Medical Advisory Criteria,” individuals cannot be qualified to drive a commercial vehicle if:

- (i) they have a medical history of epilepsy
- (ii) they have a current clinical diagnosis of epilepsy
- (iii) they take anti-seizure medication

Drivers with a history of epilepsy or seizures, who have been off anti-seizure medication and have been seizure-free for 10 years or more may be qualified to drive a commercial motor vehicle in interstate commerce. Interstate drivers with a history of a single unprovoked seizure may be qualified to drive a commercial motor vehicle in interstate commerce if seizure-free and off anti-seizure medication for a 5-year period or more.

Individuals with a history of seizures may apply for an exemption with the FMCSA to drive a commercial vehicle in interstate commerce.<sup>32</sup> The FMCSA uses the 2007 recommendations of its Medical Expert Panel (MEP) as the basis for deciding if an individual should be granted an exemption.<sup>33</sup> Applicants must reapply every two years to retain the exemption. The FMCSA

<sup>32</sup> See 49 *United States Code* 31136(e) and 31315(b).

<sup>33</sup> The MEP recommended that to be considered for an exemption, an individual should be seizure-free for at least 8 years, on or off anti-seizure medications, and one of the following conditions must also be true: 1) if all anti-seizure medication have been stopped, the individual must have been seizure-free for at least 8 years from the time of medication cessation, or 2) if still using anti-seizure medication, the individual must have been on a stable medication regimen for a minimum of 2 years. For more information, see <https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/Seizure-Disorders-MEP-Recommendations-v2-prot.pdf>.

performs an individualized assessment of each applicant's medical history, including the cause of the applicant's seizures, the length of time since the applicant's last seizure, the stability of each applicant's treatment regimen, and the duration of time on or off anti-seizure medication. In addition, the FMCSA requests and reviews the 3 year driving history of all seizure exemption applicants. For CDL-holders, the Commercial Driver's License Information System (CDLIS) record is reviewed, and for non-CDL holders, the State Driver Licensing Agency (SDLA) record is reviewed. The 3 year driving history is reviewed for serious violations and/or repeated violations (such as speeding, crashes, etc.). For any vehicle accidents within the previous 3 years, the accident reports are evaluated by the agency, and a decision is made on a case by case basis.

The FMCSA is required to publish a federal notice listing individuals who have applied for exemptions from the epilepsy and seizure regulations, and a separate federal notice listing those who have been accepted for exemptions. In its two most recent notices, published October 2016 and November 2016, exemptions were renewed for 10 individuals with a prior history of epilepsy, and exemptions for 9 others were being considered (4 of whom already held CDLs). From 2013 to 2016, the FMCSA has granted 293 seizure exemptions.<sup>34</sup> To date, one seizure exemption recipient was rescinded in 2014, due to having two crashes that resulted in zero injuries. These accidents were self-reported by the seizure exemption recipient. Within the 2-year exemption period, random driving record surveillance is done every 6 months.

## **4.2. Maryland Regulations**

The Code of Maryland Regulations (COMAR) requires all licensees or applicants for a driver's license (commercial or noncommercial) to notify the MVA if they suffer from one of 16 health issues, one of which is epilepsy.<sup>35</sup> If epilepsy is reported, the MVA may require the individual to submit a physician's report indicating the onset of the condition, the physician's diagnosis and prognosis, and the medication being prescribed. The MVA's Medical Advisory Board (MAB) makes the determination whether the individual's condition could impair the individual's ability to operate a motor vehicle.<sup>36</sup> The MAB may suspend an individual's license or driving privilege for a period of 90 days or more from the date of the last seizure; however, the individual may request that the suspension be withdrawn or modified by submitting favorable evidence to the MAB.<sup>37</sup>

With regards to commercial drivers, Maryland has adopted, with amendments and exceptions, the United States Department of Transportation's (USDOT) medical standards for purposes of licensing individuals to drive commercial vehicles intrastate. COMAR specifically states that "a school vehicle driver shall meet the same physical qualifications required for drivers

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<sup>34</sup> Email correspondence with the FMCSA liaison, December 19, 2016.

<sup>35</sup> <http://www.mva.maryland.gov/about-mva/info/26200/26200-11T.htm>. Accessed May 1, 2017.

<sup>36</sup> COMAR 11.17.03.03.

<sup>37</sup> COMAR 11.17.03.04. Favorable evidence may include: (i) seizures during medically directed medication changes; (ii) simple partial seizures that do not interfere with consciousness or motor control; (iii) seizures with consistent and prolonged auras; (iv) established pattern of pure nocturnal seizures; and (v) favorable driving record. Unfavorable evidence includes: (i) structural brain lesion; (ii) placement of a vagal nerve stimulator to control seizure activity; and (iii) seizure control requiring three or more medications.

under 49 CFR §391.41(b),” disqualifying individuals with a history of epilepsy from operating a school bus.<sup>38</sup> The state does not grant health exemptions for school bus drivers.

### 4.3. Reporting Laws

According to the Code of Maryland §16-119 (2015), any physician and any other person authorized to diagnose, detect, or treat disorders characterized by lapses of consciousness may report a driver with these conditions to the MVA MAB.<sup>39</sup> However, unless authorized by the individual in writing, a report may not be made from information derived from the diagnosis or treatment of any individual on whom a confidential or privileged relationship is conferred by law. Once the MAB receives the report, it is required to arrange an examination of the reported individual and cancel his/her license if he/she fails to meet the statutory requirements. All reports submitted to the MAB are considered confidential, may only be disclosed upon court order, and may only be used to determine the qualifications of the individual to driver. No civil or criminal action can be taken against the informant, so long as the informant does not violate a confidential or privileged relationship. According to the MAB website, individuals may also be referred to the MAB by law enforcement, judges, or attorneys. Complaints by private citizens are first screened by the MVA before being brought forward to the MAB.<sup>40</sup> Physician reporting laws vary by state. According to the Epilepsy Foundation, six states have mandatory physician reporting laws for those who have a history of lapses of consciousness (California, Delaware, Nevada, New Jersey, Oregon, and Pennsylvania).

Other entities may also refer a driver with a medical condition to the MVA. In 2013, law enforcement personnel were given an electronic means of reporting a medically high-risk driver to the MVA. Reports by law enforcement are expedited by the MVA, allowing action to be taken within a few days. Other entities, such as family members, EMT personnel, and employers, must submit a letter of concern to the MVA. The content of the letter, and its sender, must then be authenticated by the MVA before action is taken.

The MVA conducts outreach activities on a regular basis to educate law enforcement, the healthcare community, highway officials, and older populations regarding the resources and services offered by its Driver Wellness and Safety Division.<sup>41</sup> These include information to help those with medical impairments drive safely for as long as possible, driver rehabilitation programs for those who qualify, and the MAB referral process. From 2015-2016, the MVA conducted a total of 28 such outreach activities, with a majority aimed at noncommercial aging drivers.

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<sup>38</sup> COMAR 11.19.05.01. The MVA website include additional information on the types of intrastate commercial vehicle drivers may apply for waivers: <http://www.mva.maryland.gov/about-mva/info/26300/26300-50T.htm#exemption> (accessed December 21, 2016).

<sup>39</sup> See also COMAR 11.17.03.02. COMAR also allows health providers to report individuals who have any disorder which prevents them from having a corrected minimum visual acuity of 20/40 in each eye and a field of vision of at least 140 degrees.

<sup>40</sup> <http://www.mva.maryland.gov/about-mva/info/26200/26200-03T.htm>. Accessed December 8, 2016.

<sup>41</sup> Attachment 13 - MVA outreach activities.

## 5. Maryland Motor Vehicle Administration

The documents provided by the MVA indicated that the driver had on several occasions changed his name, birth date, or had impersonated others, to obtain a driver's license. Below is a summary of his license history, as provided by the MVA.

### **License Number C140282005440 (Under Glenn Chapple and correct birthdate)**

- October 1972: License revoked due to the accumulation of points from minor traffic violations. No evidence that bus driver ever applied to have this license reinstated.
- March 1974: Obtained driver's license and taxi cab operator permit under another person's name. He was subsequently convicted of fraud.<sup>42</sup>
- April 1974: Driver's license assigned 12 points for "false/fictitious name application" because of the above conviction.
- July 1974: Second revocation placed on driver's license due to conviction.

### **License Number C140282729567 (Under Glenn R. Chappell and different birthdate)**

- November 1973: Obtained noncommercial license C140282729567.
- August 1977: Upgraded license to a Class A CDL.
- September 1981: Records indicate that the driver applied for a duplicate Class A CDL at this time. Much of the records associated with this license are missing until 1993.
- March 1997: A preventable crash report while driving an empty school bus indicates that the driver had a school bus and passenger endorsement.
- April 2003: MVA began electronic verification on social security numbers. The driver stopped using his CDL after the MVA sent him letter requesting verification.
- April 2004: Driver requests reinstatement of license but abandons attempt.

### **License Number C140282744440 (Under Glenn Romie Chappell and correct birthdate)**

- February 1991: The driver was referred to the MVA Medical Advisory Board by a physician.
- The MVA attempted to contact driver for an interview but was unsuccessful. The MVA refused license privileges until the driver is interviewed.

### **License Number C140282729440 (Under Glenn R. Chappell and correct birthdate)**

- September 2004: Driver presented the MVA with a social security card displaying the name "Glenn R. Chappell" and is verified for a commercial driver's license. The driver also presented the MVA with a birth certificate that listed his name as "Glenn Chapple," but this inconsistency was not detected by the social security number verification service or by the MVA representative.
- October 2008: Driver obtained school bus endorsement.
- From 2004-2008, the driver's license was suspended at least 9 times for various reasons.
- July 2015: Driver's medical certification expired.
- September 2015: Driver submitted a medical certificate.

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<sup>42</sup> Records obtained from the Maryland Department of Public Safety and Correctional Services suggest that the bus driver might have stolen the identity of a second person. It is not clear from the records obtained from the MVA if the bus driver also obtained a license under this person's identity.

- July 17, 2016: The MVA sent the bus driver a letter stating that his medical certificate would expire on August 31, and that failure to provide a valid medical certificate would result in the cancellation of his entire driving privilege.
- September 8, 2016: The MVA sent the driver a letter notifying him that he is no longer authorized to drive a commercial vehicle due to the expired medical certification.<sup>43</sup>
- November 2, 2016: The driver's license was downgraded to a noncommercial driver's license due to the bus driver's failure to submit his latest medical certificate to the MVA.<sup>44</sup>

NTSB investigators sought to determine how the driver obtained new license numbers after previous ones were revoked and what the MVA has done to prevent unqualified individuals from obtaining valid licenses. According to the MVA, driver's license numbers in Maryland are generated using a combination of an individual's name and birth date. By changing his name and date of birth slightly, and by falsifying support documents, the driver was able to obtain a new driver's license number each time his license was revoked.

According to the MVA, the state has taken several steps since 2004 to strengthen its licensing system to prevent fraud. In 2009, Maryland required license applicants to provide a verifiable social security number (SSN) and demonstrate proof of lawful presence in the United States, in addition to Maryland residency and identity requirements. In 2016, the MVA unveiled a new secure driver's license that complied with the 2005 Read ID Act, issuing more secure licenses that included an inventory control number unique to each license holder.<sup>45,46</sup> In 2015, Maryland joined New York, New Jersey, and Connecticut in a Federal Motor Carrier Safety Administration (FMCSA)-sponsored 4-year pilot program to utilize facial recognition technology to prevent commercial drivers from obtaining a license in more than one state.<sup>47</sup> While this was the MVA's first foray into facial recognition, the state licensing authorities of New York, New Jersey, and Connecticut were already using facial recognition technology to prevent individuals within the state from obtaining multiple identification cards, or from obtaining a new license after having a license revoked or cancelled.<sup>48,49</sup> However, this pilot program is the first time states have attempted to continuously verify identity and eligibility for licensure across state lines.

Facial recognition systems have shown to be effective in identifying individuals with more than one license, individuals who have stolen another person's identity, and other instances of fraud.<sup>50</sup> In cases that have similarity to the current NTSB investigation, the New York facial recognition program identified nearly two dozen individuals who had allegedly modified their

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<sup>43</sup> The driver had obtained a valid medical certificate in June 2016, but never submitted it to the MVA. The September letter from the MVA was found in the driver's personal vehicle during the post-crash investigation.

<sup>44</sup> Effective October 1, 2016, *Senate Bill BO, Commercial Driver's licenses - Cancellations and Downgrades (Driving Privilege Preservation Act of 2016)*.

<sup>45</sup> House Bill 387: *Vehicle Laws – Lawful Status in the United States – Material Compliance with Federal Requirements*, May 7, 2009.

<sup>46</sup> <https://www.gpo.gov/fdsys/pkg/PLAW-109publ13/html/PLAW-109publ13.htm>.

<sup>47</sup> Interview with MVA, April 24, 2017.

<sup>48</sup> <http://www.pewtrusts.org/en/research-and-analysis/blogs/stateline/2015/07/14/states-crack-down-on-drivers-license-fraud>. Accessed May 9, 2017. The Maryland is not among the states that currently use facial recognition technology.

<sup>49</sup> "First Ever Inter-State Use of Facial Recognition Technology Leads to Arrests of Three Commercial Drivers for Identification Fraud." <https://dmv.ny.gov/press-release/press-release-08-17-2015>. Accessed May 9, 2017.

<sup>50</sup> <http://nypost.com/2016/02/22/dmvs-new-facial-recognition-software-threatens-fake-ids/>. Accessed May 9, 2017.

names and dates of birth to obtain secondary social security numbers and use them to get new licenses to bypass suspensions, revocations, or higher insurance costs.<sup>51</sup> In New York alone, from January to September 2016, the facial recognition program led to more than 100 arrests and 900 open criminal cases.

## **E. DOCKET MATERIAL**

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

### LIST OF ATTACHMENTS

Attachment 1 – Driver’s license for school bus driver

Attachment 2 – Medical certificate for school bus driver

Attachment 3 – MVA Notice of medical examiner's certificate expiration letter

Attachment 4 – Route of school bus driver

Attachment 5 – Interview with bus aide

Attachment 6 – School bus driver timesheet

Attachment 7 – Post-crash toxicology report for school bus driver

Attachment 8 – BCPS Screening Criteria for Background Investigations

Attachment 9 – Post-crash toxicology report for MTA bus driver

Attachment 10 – Driver's license for MTA bus driver

Attachment 11 – Route of MTA bus driver

Attachment 12 – Medical certificate for MTA bus driver

Attachment 13 - MVA outreach activities

END OF INFORMATION

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Rafael Marshall  
Human Performance Investigator

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<sup>51</sup> <http://www.governor.ny.gov/news/governor-cuomo-announces-more-100-arrests-major-enhancement-dmvs-facial-recognition-technology>. Accessed May 9, 2017.