

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

# HUMAN PERFORMANCE FACTORS GROUP CHAIRMAN'S FACTUAL REPORT

### A. CRASH INFORMATION

Location: Intersection of State Route 30A and State Route 30, near Schoharie,

Schoharie County, New York

Vehicle 1: 2001 Ford Excursion "Stretch" Limousine

Operator 1: Prestige Limousine Chauffeur Service

Vehicle 2: 2015 Toyota Highlander

Operator 2: Private citizen

Date: October 6, 2018

Time: Approximately 1:55 p.m. EDT

NTSB #: **HWY19MH001** 

#### B. HUMAN PERFORMANCE FACTORS GROUP

Dennis Collins, Senior Human Performance Factors Investigator, Group Chairman NTSB Office of Highway Safety 490 L'Enfant Plaza East, S.W., Washington, DC 20594

Nicholas Webster, MD, Medical Officer (RETIRED) NTSB Office of Research and Engineering 490 L'Enfant Plaza East, S.W., Washington, DC 20594

Michelle Watters, MD, Medical Officer NTSB Office of Research and Engineering 490 L'Enfant Plaza East, S.W., Washington, DC 20594

Albro W. Fancher, Senior Investigator New York State Police 1370 Duanesburg Road, Schenectady, NY 12306

# 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 HUMAN PERFORMANCE FACTORS INVESTIGATION

The Human Performance factual investigation focused on the behavioral, medical, operational, and environmental factors associated with the driver of the 2001 Ford Excursion Limousine (hereafter the limousine). The 2015 Toyota Highlander was parked and unoccupied at the time of the crash; therefore, there was no driver or driver performance to examine.

#### 1. Driver of the Limousine

### 1.1. Driver Background

The driver of the limousine was a 53-year-old male. He held a class "A" New York commercial driver's license with a doubles/triples and tank endorsement and a corrective lenses restriction. His license would have expired in May of 2026. He also held a medical examiner's certificate for commercial driver medical certification, issued in September of 2017 and expiring in September of 2019. A check of the National Driver Register (NDR) Problem Driver Pointer System (PDPS) for the driver found no pointers. He had begun his employment with the limousine company in 2017 and had driven the limousine involved in the crash previously. The driver of the limousine was killed in this crash.

#### 1.2. Pre-Crash Events

Using information from the driver's wife,<sup>4</sup> the driver's manager at the limousine company,<sup>5</sup> the driver's ride-ridesharing employer,<sup>6</sup> and the driver's cell phone records,<sup>7</sup> investigators generated the following table of the driver's activities in the days prior to the crash. All times in the table are in Eastern Daylight Time (EDT).

Wednesday, October 3, 2018			
<u>Time</u>	<u>Description</u>	<u>Source</u>	
7-7:30 a.m.	Driver typically awakes	Driver's Wife	
8:33 a.m.	Driver accepts Uber passenger	Uber Records	
8:57 a.m.	Driver drops off Uber passenger	Uber Records	
9:56 a.m.	Driver receives an incoming call (first activity of day)	Cell Records	
10:53 a.m.	Driver accepts Uber passenger	Uber Records	

Table 1. Summary of Driver Activities Prior to the Crash

<sup>&</sup>lt;sup>1</sup> Human Performance Attachment: New York State Driver's Abstract.

<sup>&</sup>lt;sup>2</sup> See section 1.4.1 for more details on this examination.

<sup>&</sup>lt;sup>3</sup> Human Performance Attachment: National Driver Register Problem Driver Check.

<sup>&</sup>lt;sup>4</sup> Human Performance Attachment: Narratives and Transcripts of Investigative Interviews.

<sup>&</sup>lt;sup>5</sup> Human Performance Attachment: New York State Police Supporting Depositions.

<sup>&</sup>lt;sup>6</sup> Human Performance Attachment: Uber Records.

<sup>&</sup>lt;sup>7</sup> Human Performance Attachment: Driver Cellular Telephone Records.

	Wednesday, October 3, 2018 (continued)		
Time	Description	Source	
11:28 a.m.	Driver drops off Uber passenger	Uber Records	
7:02 p.m.	Driver sends an outgoing text message (last activity of day)	Cell Records <sup>+</sup>	
~9:00 p.m.	Driver typically goes to bed	Driver's Wife	
).00 p.m.	Thursday, October 4, 2018	Billyer & Tylic	
Time	Description	Source_	
7-7:30 a.m.	Driver typically awakes	Driver's Wife	
10:32 a.m.	Driver makes an outgoing call (first activity of day)	Cell Records	
1:35 p.m.	Driver accepts Uber passenger	Uber Records	
1:59 p.m.	Driver drops off Uber passenger	Uber Records	
3:01 p.m.	Driver accepts Uber passenger	Uber Records	
3:21 p.m.	Driver drops off Uber passenger	Uber Records	
9:08 p.m.	Driver accepts Uber passenger	Uber Records	
9:37 p.m.	Driver drops off Uber passenger	Uber Records	
9:41 p.m.	Driver accepts Uber passenger	Uber Records	
10:00 p.m.	Driver drops off Uber passenger	Uber Records	
10:06 p.m.	Driver accepts Uber passenger	Uber Records	
10:26 p.m.	Driver drops off Uber passenger	Uber Records	
10:35 p.m.	Driver accepts Uber passenger	Uber Records	
10:52 p.m.	Driver drops off Uber passenger	Uber Records	
11:16 p.m.	Driver accepts Uber passenger	Uber Records	
11:28 p.m.	Driver drops off Uber passenger	Uber Records	
11:38 p.m.	Driver accepts Uber passenger	Uber Records	
	Friday, October 5, 2018		
<u>Time</u>	<u>Description</u>	<u>Source</u>	
12:17 a.m.	Driver drops off Uber passenger	Uber Records	
12:14 a.m.	Driver makes an outgoing call (last activity before break)	Cell Records	
12:45 a.m.	Driver accepts Uber passenger	Uber Records	
1:00 a.m.	Driver drops off Uber passenger	Uber Records	
1:19 a.m.	Driver accepts Uber passenger	Uber Records	
1:53 a.m.	Driver drops off Uber passenger	Uber Records	
1:53 a.m.	Driver accepts Uber passenger	Uber Records	
2:00 a.m.	Driver drops off Uber passenger	Uber Records	
2:09 a.m.	Driver accepts Uber passenger	Uber Records	
2:15 a.m.	Driver drops off Uber passenger	Uber Records	
UNKNOWN	Driver goes to bed	N/A	
7-7:30 a.m.	Driver typically awakes	Driver's Wife	
8:20 a.m.	Driver makes an outgoing call (first activity after break)	Cell Records	
8:07 p.m.	Driver checks his voicemail	Cell Records	
~9:00 p.m.	Driver typically goes to bed	Driver's Wife	
Saturday, October 6, 2018			
<u>Time</u>	<u>Description</u>	<u>Source</u>	
7-7:30 a.m.	Driver typically awakes	Driver's Wife	
~9:00 a.m.	Limousine company manager calls driver	Mgr. Deposition	

Saturday, October 6, 2018 (continued)		
<u>Time</u>	<u>Description</u>	<u>Source</u>
9:09 a.m.	Driver receives an incoming call	Cell Records
9:21 a.m.	Driver receives an incoming text	Cell Records <sup>+</sup>
UNKNOWN	Driver called by manager for job	Driver's Wife
10:00 a.m.	Driver leaves home to get limousine	Driver's Wife
1:05 p.m.*	Driver receives an incoming call (last activity before crash)	Cell Records
~1:53 p.m.	Limousine turns onto Route 30 from Route 7	Witness
1:55 p.m.	ESTIMATED TIME OF CRASH	

<sup>+</sup> The driver's cellular service provider maintains all text message times in Central time. For the purposes of this report, all text message times were converted to Eastern time (the time zone where the crash occurred) by adding one hour.

At the time of the crash, the driver was taking a group celebrating a birthday from Amsterdam, NY to Cooperstown, NY, with possible additional stops to follow. According to a statement to police by the manager of the limousine company, one of the passengers had called him at approximately 9:00 a.m. that day, looking, to rent a limousine. The passenger stated he had a reservation with a different company, but that limousine had unspecified problems and was unable to fulfill the contract. After reaching an agreement as to price with the passenger, the manager called the driver to see if he was available to drive. The limousine was booked from 1 p.m. until 6 p.m. 9

According to his wife, the driver left his residence at approximately 10:00 a.m. Based on the estimated drive time provided by routing and navigation websites, the driver would have arrived at the limousine's parked location at approximately 10:30 a.m. Driving to the pickup location is estimated to have taken approximately 40 minutes. Based on text messages, the passengers were picked up at approximately 1:00 p.m., leaving 1 hour and 50 minutes of time unaccounted for. It is unknown what the driver did during this time. Cellular records show the driver received a call from his residence at 1:05 p.m. The driver's wife told investigators that when she spoke to the driver, he stated he had to "switch the limo out". Investigators were unable to learn any additional details about this switch; however, given his scheduled pickup time of 1:00 p.m., it is likely the "switching" activity occurred before the call and the passenger pickup.

NTSB investigators followed New York State Police (NYSP) investigators along the recreated route <sup>10</sup> of the limousine and observed that after picking up the passengers, the limousine got onto the New York State Thruway (I-90) and exited using Exit 28. The limousine headed generally south along Route 30A, passing through the intersection of Route 30A and Route 20 in Sloansville. Upon reaching Route 7, the limousine turned left and headed generally east until

<sup>\*</sup>When first interviewed by investigators, the driver's wife stated she spoke to him at 11:30 a.m. No corresponding call was found in his records. When interviewed again, the driver's wife stated she was not sure when she spoke to him. The 1:05 p.m. call is from his residence and investigators believe this is when she spoke to him.

<sup>&</sup>lt;sup>8</sup> See New York State Police Supporting Depositions.

<sup>&</sup>lt;sup>9</sup> Human Performance Attachment: Verbal Statements to NYSP.

<sup>&</sup>lt;sup>10</sup> The route was recreated by the NYSP based on multiple sources not available to the NTSB due to the ongoing criminal proceedings.

reaching Route 30. At Route 30, the limousine turned right and headed southwest to the crash location. The recreated route is depicted graphically in Figure 1.



Figure 1. Limousine route from Amsterdam, NY to crash scene. (Image from Google Earth, modified to show route)

Approximately 20 minutes before the crash, one of the passengers engaged in a text conversation with a person not in the limousine, stating in that conversation that "the limo sounds like it is going to explode", "it's a junker", "the motor is making everyone deaf", and "when we get to brewery we will all b deaf". The last text from this passenger was received at 1:37 p.m.<sup>11</sup>

A witness, <sup>12</sup> travelling north on Route 30, stated he observed the limousine turn right from Route 7 onto Route 30 south, heading towards the intersection of Route 30 and Route 30A. <sup>13</sup> The witness was able to observe the driver as the limo passed and described him as "confused" or "frazzled". As the witness stopped at the intersection of Route 7 and Route 30, through his rearview mirror, he observed the limousine pull off the road to the right. The witness stated based on the time he began his trip and how long it typically takes him to get to that intersection, this was no more than one or two minutes before the crash.

Two additional witnesses, together in the same vehicle, also observed the limousine turn slowly onto Route 30 from Route 7. <sup>14</sup> Once it completed the turn, it pulled onto the shoulder with its flashers on. The limo pulled back onto Route 30 and the witnesses followed. They observed the limousine still had its flashers and the reverse lights on with the backup alarm sounding. The

<sup>&</sup>lt;sup>11</sup> See New York State Police Supporting Depositions.

<sup>&</sup>lt;sup>12</sup> See Narratives and Transcripts of Investigative Interviews.

<sup>&</sup>lt;sup>13</sup> The intersection of Route 30 and Route 7 is approximately 1.8 miles from the location of the crash.

<sup>&</sup>lt;sup>14</sup> See New York State Police Supporting Depositions.

limousine moved to the shoulder of the road, continuing to move forward slowly, and was passed by the witnesses' vehicle. One of the witnesses stated that as they passed, the driver was pointing to the valley. The witnesses continued, stopping at the intersection of Route 30 and Route 30A. The driver heard a loud noise, looked in the rear-view mirror, and saw the limousine approaching her car from behind at a high rate of speed. She described the noise as being like a "jet plane". The limousine swerved into the oncoming lane, proceeded through the intersection, and crashed. The witnesses did not hear any braking or see brake lights on the limousine.

When asked by NTSB investigators if the driver had ever had a limousine develop mechanical issues while he was driving it, the driver's wife stated he had, and estimated the limousines would develop an issue every third time he drove one. The driver had, in the past, refused to drive until the vehicle was fixed. She further stated the driver would call his manager when such issues arose, and the manager would reportedly have the issue fixed.

#### 1.3. General Health

Investigators obtained information on the driver's health from his wife, his current commercial driver medical exam, local pharmacies, and his treating physicians. All medical information was reviewed by an NTSB Medical Officer and the Human Performance Group Chairman for information relevant to this crash. Medical information pertaining to human performance can be found in sections 1.4 to 1.10 of this report; for additional information, please see the *Medical Factual Report*, available in the docket.

# 1.4. Medical Examination Report for Commercial Motor Vehicle Driver Fitness Determination (CDL Medical Exam)

Commercial drivers in the United States, which included the limousine driver, are required to be medically certified to operate a commercial vehicle. Interstate drivers are subject to the *Federal Motor Carrier Safety Regulations* (FMCSRs). <sup>15</sup> Intrastate drivers are subject to the requirements of their state; some states establish their own requirements while others adopt the requirements specified in the FMCSRs. The State of New York, where the driver was licensed, requires all commercial drivers (both intra- and inter- state) to undergo a U.S. Department of Transportation (USDOT) physical (i.e. the meet the requirements of the FMCSRs). USDOT/FMCSR examinations result in one of four outcomes with respect to medical qualification:

- The driver is found to meet the standards in 49 Code of Federal Regulations (CFR) §391.41 and is given a 2-year certificate; <sup>16</sup>
- The driver is found to meet the standards, but requires periodic evaluation for one or more conditions and is qualified for 3 months, 6 months, or 1 year;
- The driver is temporarily disqualified due to a condition or medication; or

<sup>&</sup>lt;sup>15</sup> 49 Code of Federal Regulations §391.41.

<sup>&</sup>lt;sup>16</sup> For more information on who must be examined and the examination process, please see 49 CFR §391.43 and 49 CFR §391.45.

• The driver is found not to meet the standards.

#### 1.4.1. Driver's Current CDL Medical Exam

The driver's most recent CDL Medical exam was performed on September 6, 2017.<sup>17</sup> In that exam, the driver indicated no health history or other health conditions. He indicated he had undergone hernia surgery in 2010. He stated he was not taking any prescription or over-the-counter medications, herbal remedies, or diet supplements. He told his examiner he had a right hip replacement (he did not specify when). The examiner noted he had full strength and range-of-motion in that hip. His corrected visual acuity, horizontal field of view, hearing, blood pressure, pulse rate, and urinalysis were within normal ranges. His height was listed as 5 feet 10 inches and his weight was listed as 188 pounds. A physical examination was unremarkable.

The driver affirmed that he had never been denied a USDOT/FMCSA medical certificate or had one issued for less than two years. The limousine driver was qualified for two years with a requirement for the use of corrective lenses. The performing examiner was listed on the national registry of certified medical examiners.

#### 1.4.2. Driver's Previous CDL Medical Exams

Given the driver had held a commercial driver's license for several years and had been employed as a truck driver, investigators attempted to locate pervious CDL medical exams for the driver. The driver's wife could not provide any information on previous exams and attempts to locate the driver's previous employers were unsuccessful.

### 1.5. Medical Providers

Investigators located several medical providers for the driver. Records from those providers were reviewed by an NTSB Medical Officer and the Human Performance Group Chairman for relevance to this crash. For the complete factual findings of this review, please see the *Medical Factual Report* in the docket for this investigation.

#### 1.6. Driver's Family

When interviewed, the driver's wife described him as being in great health. She stated that years of driving trucks had damaged the driver's hip, but he had a hip operation and his hip was fine at the time of the crash. She confirmed that the driver was receiving Social Security Disability for his hip and was undergoing treatment for bipolar disorder.

<sup>&</sup>lt;sup>17</sup> Per NTSB policy, medical records are not typically made public. The human performance investigator and an NTSB medical officer examined the records and extracted the information in this section.

# 1.7. Medications (Prescription, Over the Counter, Other)

# 1.7.1. Pharmacy Records

A canvas of pharmacies near the driver's residence indicated he had filled prescriptions for the following medications in 2018:

Drug / strength / # filled	First filled	Last filled	Indications
Aripiprazole 10 mg #30	12/2016	09/18/2018	Schizophrenia, bipolar disorder, depression
Bupropion SR 200 mg #30	5/2018	09/14/2018	Major depression
Oxcarbazepine 300 mg #60	10/2016	10/02/2018	Partial seizures, bipolar disorder (off label)
Famotidine 20 mg #60	10/2016	09/07/2018	Gastroesophageal reflux
Atorvastatin 10 mg #30	10/2016	06/12/2018	Hypercholesterolemia

Table 2. Medications Filled by the Driver in 2018.

For details on the uses of and warnings associated with these medications, please see the *Medical Factual Report*, available in the docket.

### 1.8. Drug and Alcohol Information from Family

When interviewed, the driver's wife stated he "drank a beer every now and then, nothing heavy" and smoked "weed". When asked, she stated the driver did not have, but was trying to obtain, an identification card for the New York State medical marijuana program. She also stated he took medications for bipolar disorder, but she did not know the medication names.

### 1.9. Post-Crash Toxicology

Given the location of the crash, the Schoharie County Coroner's Office had responsibility for victim autopsies; the autopsies were outsourced to an independent medical examiner who performed them at the Albany Medical Center morgue. At the request of the Safety Board, the medical examiner sent biological samples from the driver to the Federal Aviation Administration (FAA) Forensic Sciences Laboratory for additional testing. <sup>18</sup> That testing found the following drugs: <sup>19</sup>

- Delta-9-tetrahydrocannabinol (THC)<sup>20</sup>
- 11-hydroxy-delta-9-THC<sup>21</sup>
- Carboxy-delta-9-tetrahydrocannabinol (THC-COOH)<sup>22</sup>

<sup>&</sup>lt;sup>18</sup> Due to the circumstances of the crash, little blood was available for testing. Various tissues were tested instead.

<sup>&</sup>lt;sup>19</sup> Human Performance Attachment: Final Forensic Toxicology Fatal Accident Report.

<sup>&</sup>lt;sup>20</sup> The primary active chemical in marijuana.

<sup>&</sup>lt;sup>21</sup> THC's most prominent equipotent psychoactive metabolite.

<sup>&</sup>lt;sup>22</sup> THC's inactive metabolite.

- Bupropion<sup>23</sup>
- Hydroxybupropion<sup>24</sup>
- Famotidine<sup>25</sup> and
- Oxcarbazepine<sup>26</sup>

For additional information, including description of drugs and medications and tissue levels, please see the *Medical Factual Report*, available in the docket. No additional common drugs of abuse or ethanol (alcohol) were present in the samples.<sup>27</sup>

# 1.10. Psychological Factors

When asked about life stressors, the driver's wife indicated the driver was worried about the family's finances and his younger brother had passed away from a drug overdose about one year ago. However, she described him as in good spirits as he left for work on the day of the crash.

# 1.11. Sleep Habits

The driver's wife stated he "slept like a log". She described his sleep as being of good quality and indicated he had no problem falling asleep. The driver would sometimes wake in the middle of the night due to stress over family finances but would easily fall back asleep. She stated he did snore.

Based on the gathered information, the following table listing the driver's opportunity to rest was created.

From To Elapsed Time Date <u>Time</u> <u>Time</u> Date October 3 9:00 p.m. October 4 7:30 a.m. 10:30

7:30 a.m.

7:30 a.m.

5:30

10:30

October 5

October 6

Table 3. Time Available to Driver for Rest

October 5

October 5

2:00 a.m.<sup>28</sup>

9:00 p.m.

<sup>&</sup>lt;sup>23</sup> Bupropion, also called Wellbutrin, is a prescription antidepressant medication.

<sup>&</sup>lt;sup>24</sup> A metabolite of bupropion.

<sup>&</sup>lt;sup>25</sup> Famotidine, also called Pepcid, is used to treat heartburn.

<sup>&</sup>lt;sup>26</sup> Oxcarbazepine, also called Trileptal, is a prescription antiepileptic drug that is also used to treat bipolar disorder.

<sup>&</sup>lt;sup>27</sup> The samples were analyzed for major drugs of abuse, including but not limited to, amphetamines, opiates, marihuana, cocaine, phencyclidine, benzodiazepines, barbiturates, antidepressants, and antihistamines. For additional information, see <a href="http://jag.cami.jccbi.gov/toxicology/">http://jag.cami.jccbi.gov/toxicology/</a> (accessed January 30, 2019).

<sup>&</sup>lt;sup>28</sup> This is the time of the last known activity by the driver. Staff recognizes that the driver would have had to drive home and go to bed; the time this would have taken cannot be estimated from the available information. The time of last activity gives the driver the most time available for rest and will be used in this report and subsequent analysis.

# 1.12. Training/Experience

According to his wife, the driver held a commercial driver's license for over 20 years. He had begun driving limousines approximately one year ago. Prior to that, he only drove trucks. She was unable to provide any specifics on his training. The driver's wife also did not know if he was familiar with the area. She told investigators that he usually drove for the limousine company on the weekends and for Uber during the week.

# 1.13. Licensing

The driver's New York abstract of driving record<sup>29</sup> shows two convictions, one suspension, and one accident. The convictions were in March of 2018 for operating an uninspected private (non-commercial) vehicle and in May of 2018 for operating an unregistered private vehicle. His license was suspended on September 6, 2018 for failure to pay the fine for the March conviction; his license was reinstated on September 7, 2018 after he paid the fine. The accident occurred in November of 2015 and involved personal injury/property damage. Investigators obtained a copy of the report for the 2015 accident<sup>30</sup> which indicated the driver was in his personal vehicle, failed to yield right-of-way at a stop sign, and struck another vehicle. The driver was charged with violating section 1142A of New York Vehicle and Traffic Law.<sup>31</sup>

The Motor Carrier Group Chairman obtained the driver/vehicle examination report for a level III (driver-only) inspection performed by the New York State Police Commercial Vehicle Enforcement Unit on August 25, 2018. That inspection resulted in the driver being cited for not having a passenger vehicle endorsement on his license, a violation of 49 *Code of Federal Regulations* (CFR) §383.93b2, which states that all persons that operate passenger vehicles must pass a knowledge and a skills test and be issued a CDL endorsement to that effect. <sup>32</sup>At the time of the accident, there was no evidence that the driver had obtained a commercial passenger vehicle endorsement. The limousine is defined as a commercial passenger vehicle.

#### 1.14. Distractions Inside the Vehicle

According to the driver's wife, there was no GPS unit in the limousine.<sup>33</sup> The driver's wife stated he did not use a hands-free device with his phone; however, records from the driver's service provider indicate he was not using his cell phone at or near the time of the crash.

<sup>&</sup>lt;sup>29</sup> See New York Abstract of Driving Record.

<sup>&</sup>lt;sup>30</sup> Human Performance Attachment: Police Accident Report, November 30, 2015.

<sup>&</sup>lt;sup>31</sup> See <a href="https://www.nysenate.gov/legislation/laws/VAT/1142">https://www.nysenate.gov/legislation/laws/VAT/1142</a>, accessed 11/20/2018.

<sup>&</sup>lt;sup>32</sup> See <a href="https://www.gpo.gov/fdsys/pkg/CFR-2015-title49-vol5/pdf/CFR-2015-title49-vol5-sec383-93.pdf">https://www.gpo.gov/fdsys/pkg/CFR-2015-title49-vol5/pdf/CFR-2015-title49-vol5-sec383-93.pdf</a>, accessed November 16, 2018.

<sup>&</sup>lt;sup>33</sup> Due to criminal proceedings, no one from the company would speak with NTSB investigators.

#### 1.15. Distractions Outside the Vehicle

Investigators conducted an examination<sup>34</sup> of the crash scene under conditions approximating those at the time of the crash.<sup>35</sup> No unusual or distracting environmental features were noted.

#### 2. Other Factors

# 2.1. Global Positioning System Location

NTSB investigators used a Trimble Geo 7X Differential GPS unit to determine the coordinates of the crash scene:

Latitude: 42.70022200 (42° 42' 0.7986") N Longitude: 74.30176723 (-74° 18' 6.3606") W

Elevation: 629.7 feet

#### 2.2. Weather

Data from weather station KNYSCHOH6 in Schoharie, New York, for October 6, 2018 was downloaded<sup>36</sup> from the Weather Underground, <a href="http://www.weatherunderground.com">http://www.weatherunderground.com</a>. Data for the observation closest to the time of the crash are shown below.

Table /	Weather D	ata from	KNYSCHOH6	for October 6, 2018.
Table 4.	. W Caulci L	ata mom		101 OCLODEL 0. 2016.

Time (EST)	1:55 p.m.
Temperature	66.8° F
<b>Dew Point</b>	57.6° F
Humidity	72%
Pressure	30.14 in
Wind Dir.	WNW
Wind Speed	3.4 mph
Wind Gust Speed	4.2 mph
Precipitation Rate	0 in
<b>Precipitation Total</b>	0 in

#### 2.3. Illumination

According to the U.S. Naval Observatory Astronomical Applications Department,<sup>37</sup> for the accident location on October 6, 2018, sunrise was at 7:00 a.m., sun transit was at 12:45 p.m., and sunset would have been at 6:30 p.m. At the time of the crash, the sun was at an altitude of 39.5

<sup>&</sup>lt;sup>34</sup> Investigators used aerial drone photography and drove part of the route taken by the limousine.

<sup>&</sup>lt;sup>35</sup> The exact weather and illumination conditions could not be duplicated; however, investigators performed their observations at approximately the same time of day under cloudy (but not raining) conditions.

<sup>&</sup>lt;sup>36</sup> Human Performance Attachment: Weather Data

<sup>&</sup>lt;sup>37</sup> Human Performance Attachment: Astronomical Data

degrees and an azimuth of 202.7 degrees east of true north. The sun's position is shown graphically in Figure 2.



Figure 2. Graphic Representation of the Sun's Position. (Image from NOAA Solar Calculator)

# 2.4. New York State Medical Marijuana

Since 2014, New York has allowed possession and use of marijuana for medical reasons under the Compassionate Care Act. Persons with certain medical conditions may apply for the medical marijuana program by obtaining a certification from a registered health care provider. With this certification, the person may apply for a medical marijuana identification (ID) card. With the ID card, the person may visit a medical marijuana dispensing facility to purchase medical marijuana. Program participants must carry their medical marijuana ID card whenever in possession of medical marijuana. Smoking and edibles are prohibited under this program.<sup>38</sup>

# 2.5. New York State Laws on Driving Under the Influence of Marijuana

In New York State, driving under the influence of marijuana falls under Article 31, Section 1192 of the New York Vehicle and Traffic Law.<sup>39</sup> Subsection 4 reads:

"Driving while ability impaired by drugs. No person shall operate a motor vehicle while the person's ability to operate such a motor vehicle is impaired by the use of a drug as defined in this chapter."

Under the provisions of these subsections, motorists can be charged with Driving While Ability Impaired<sup>40</sup> based on a law enforcement officer's determination that he or she has probable cause to believe a person was driving while under the influence of drugs. If convicted, penalties

<sup>&</sup>lt;sup>38</sup> See <a href="https://www.health.ny.gov/regulations/medical-marijuana/">https://www.health.ny.gov/regulations/medical-marijuana/</a>, accessed 2/27/2019.

<sup>&</sup>lt;sup>39</sup> See <a href="http://ypdcrime.com/vt/article31.htm#t1192">http://ypdcrime.com/vt/article31.htm#t1192</a>, accessed 3/5/2019.

<sup>&</sup>lt;sup>40</sup> Driving While Ability Impaired can be charged for a single drug or multiple drugs.

can include license revocation for a period of time, fines, and jail time. Penalties increase for repeat offenders.41

# 2.6. Federal Motor Carrier Safety Administration Marijuana Regulations

In the United States, commercial drivers are subject to prohibitions and regulations regarding controlled substance use. 49 CFR 382.213 states in part: 42

"(a) No driver shall report for duty or remain on duty requiring the performance of safety sensitive functions when the driver uses any drug or substance identified in 21 CFR 1308.11 Schedule 1."

Marijuana is a Schedule 1 substance. Recently, some states have passed laws allowing the use of marijuana for medical or recreational purposes. However, the DOT has not allowed an exception to 49 CFR 382.213 for either medical 43 or recreational 44 use.

<sup>&</sup>lt;sup>41</sup> See http://ypdcrime.com/vt/dwi penalties.htm, accessed 3/5/2019.

<sup>42</sup> https://www.ecfr.gov/cgi-

bin/retrieveECFR?gp=1&ty=HTML&h=L&mc=true&=PART&n=pt49.5.382 #se49.5.382 1213, accessed 6/8/2018.

https://www.transportation.gov/odapc/medical-marijuana-notice, accessed February 27, 2019.

https://www.transportation.gov/odapc/dot-recreational-marijuana-notice, accessed February 27, 2019.

# E. DOCKET MATERIAL

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

# **LIST OF ATTACHMENTS**

Human Performance Attachment: New York State Driver's Abstract.

Human Performance Attachment: National Driver Register Problem Driver Check.

Human Performance Attachment: Narratives and Transcripts of Investigative Interviews.

Human Performance Attachment: New York State Police Supporting Depositions.

Human Performance Attachment: Uber Records.

Human Performance Attachment: Driver Cellular Telephone Records.

Human Performance Attachment: Final Forensic Toxicology Fatal Accident Report.

Human Performance Attachment: Police Accident Report, November 30, 2015.

Human Performance Attachment: Weather Data.

Human Performance Attachment: Astronomical Data.

#### **LIST OF PHOTOGRAPHS**

NONE

#### END OF REPORT

Dennis J. Collins

Senior Highway Investigator (Human Performance)