



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

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

CORAL GABLES, FLORIDA – HWY21FH011

A. CRASH INFORMATION & CRASH SUMMARY

Refer to the *Crash Information and Crash Summary Report* in the docket for this investigation.

B. HUMAN PERFORMANCE GROUP

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C. DETAILS OF THE HUMAN PERFORMANCE INVESTIGATION

The Human Performance Factual Report focused on the driver of the 2021 Tesla Model 3 and the behavioral, medical, operational, and environmental factors that may have caused or contributed to the crash. The Tesla driver will hereafter be referred to as the passenger car driver and the Tesla as the passenger car.

1. Passenger Car Driver

1.1. Background

The driver was a 20-year-old college student from Miami, Florida. He lived in Coral Gables, Florida with his mother and sister about 6 miles from Florida International University (FIU), which he attended. In addition to attending school, he worked parttime at a law firm that was about 7 miles from his home.

The driver owned the Tesla for about 6 days when the crash occurred; this was his first electric vehicle. He did not receive any education regarding the operation of electric vehicles. The Tesla did not have speed restrictions when the crash occurred.

1.2. License History

At the time of the crash, the driver held a class E non-commercial driver license with no endorsements and a corrective lenses restriction.¹ His license was issued in February, 2019 and expired in 2027. He had no record of any traffic violations or crashes. At the time of the crash, the driver had been fully licensed for about 2 years, 6 months.

According to family members, the driver obtained his learners permit at age 17, which he held for a year. He did not attend a formal driving school to meet testing or instructional requirements. He practiced driving using his mother's car under the supervision of his mother and a family friend. His mother's car was powered by a 6-cylinder gasoline engine with an automatic transmission. When the crash occurred, the driver had driven the Tesla for about 6 days.

1.2.1. Florida Driver License Requirements

Florida law requirements for individuals under the age of 18 to obtain a driver's license are as follows:

- Hold a learner's license for 12 months or until the 18th birthday
- No moving violations for 12 months; beginning with learner's license²
- A parent or guardian must certify that the driver has had at least 50 hours of driving experience, of which 10 were at night
- Parent or guardian must sign consent form; and
- Must be in compliance with school attendance.
- Complete Class E knowledge exam (50 questions)
- Complete Class E driving skills test

To obtain a learner's license, the holder must be at least 15 years old, complete a Traffic Law and Substance Abuse Education (TLSAE) course, pass a vision exam, and complete the Class E knowledge exam.

The Florida TLSAE course is required for all first-time driver's license applicants and drivers under 21 years of age that need their license reinstated after a DUI suspension. The course covers topics such as how intoxicants affect driving behavior, traffic laws, seat belt use, driving distractions, and road signs. The course is web-based and is offered commercially through third-party vendors. There is a knowledge assessment test and participants must achieve a score of 80% or higher to pass the exam. There is no limit on the number of attempts to pass the exam.

The Florida driver's license Class E knowledge exam tests drivers' knowledge of Florida traffic laws, safe driving practices and traffic control devices. Applicants can take the exam at a driver license service center or through an approved third-party test administrator. Students have three attempts to achieve a passing score of 80% or higher. Students who fail to pass the online course, must attend an in-person course at a Florida driver license office.

¹ Human Performance Factors Attachment – Passenger Car Driver License History

² Learner's license holder may have one moving traffic violation if adjudication is withheld.

The Class E driving skills test consists of a series of driving maneuvers that demonstrate a driver's ability to safely operate a motor vehicle. License applicants must demonstrate the following tasks:

- Three-point turn
- Approach of crossing
- Yield right-of-way
- Straight in parking
- Parking on a grade
- Stop quickly
- Backing
- Obey stop signs and traffic signals
- Signal and turn
- Passing
- Proper lane maintenance
- Following at safe distance
- Proper driving posture.

1.3. Activities Prior to Crash

Friends, family members and the mother of the passenger were interviewed to understand the driver's activities leading up to the crash. According to the driver's mother, the driver was already awake at about 8:00 a.m. when began her day.³ He left home and headed to FIU campus after a brief conversation. According to a friend that attended FIU with him, they texted throughout the morning and planned to meet for lunch.⁴ Around 1:30 p.m., the passenger car driver took his friend to a fast-food restaurant for lunch near Coral Gables. After lunch, they drove to the University of Miami, where they met a group of friends, walked around campus, and returned to FIU. While driving to campus, the driver spoke to his school counselor regarding the status of a scholarship that had been withdrawn. After speaking to the school counselor, he spoke with his sister regarding the scholarship. According to his friend, he did not seem unusually upset about the status of the scholarship. After arriving at FIU campus around 5-5:30 p.m., the driver told his mother that he was going to hang out with another friend, the passenger in the crash.

According to the driver's mother, she spoke with her son on the phone around 5:00 p.m. His mother said that he told her that he confirmed that the scholarship had been withdrawn. She stated that she assured him that this had happened previously with his older sister and that he would not have to withdraw from school. She stated he did not seem to be upset.

According to the passenger's mother, she last spoke with her daughter on the day of the crash at 7:15 p.m. Her daughter told her that she was going to be with the driver because he had called her and was upset. At that time, her daughter did not know why he was upset. She left home around 8:00 p.m. At 8:44 p.m. her mother received a text message stating that the driver was upset because he lost his scholarship.

³ Human Performance Factors Attachment – Passenger Car Driver's Family Interview Transcript

⁴ Human Performance Factors Attachment – Witness Interview Transcription

1.4. Cell Phone Use

According to records obtained from the driver's cell phone service provider, he was not using a cell phone to talk or text when the crash occurred.⁵ His most recent call ended about 8 minutes before the crash occurred.

1.5. Medical Factors

According to the driver's mother, he was healthy and had no diagnosed or suspected medical or mental conditions. The NTSB did not complete a medical evaluation of the driver; there was no historical medical information obtained.

1.6. Psychological Factors

According to the driver's mother and a close friend, he learned of the final status of his scholarship on the day of the crash. On June 4, 2021, the driver was notified that he was ineligible for continuation in a scholarship program for the 2021-2022 academic year. Over the next several weeks, the passenger car driver submitted an appeal of his scholarship status and made several calls related to that appeal. At 2:20 p.m. on the day of the crash, the passenger car driver called the school and stated that he had received an email indicating the scholarship would be reinstated. At 3:01 p.m. he received an email stating the scholarship had been withdrawn. At 5:05 p.m. he called the school and confirmed that the scholarship had been withdrawn.

According to the accident driver's mother, he was not upset over the status of the scholarship. However, the mother of the passenger indicated that the passenger car driver was upset over the status of the scholarship and her daughter was with him to provide emotional support.

1.7. Post-Crash Toxicology

Following the crash, a postmortem blood sample from the passenger car driver was sent to the Federal Aviation Administration Civil Aerospace Medical Institute toxicology laboratory for analysis. Toxicological testing was completed on November 20, 2021. The test was negative for:⁶

- Ethanol
- Amphetamines
- Opiates
- Marihuana
- Cocaine
- Phencyclidine

⁵ Human Performance Factors Attachment – Passenger Car Driver's Cell Phone Records

⁶ Specimens are analyzed using immunoassay, chromatography, GC/MS, HPLC/MS, or GC/FTIR. Concentrations (ug/mL) at or above those in () can be determined for, but not limited to, the following drugs: amphetamines (0.010), opiates (0.010), marihuana (0.001), cocaine (0.020), phencyclidine (0.002), benzodiazepines (0.030), barbiturates (0.060), antidepressants (0.100), and antihistamines (0.020). See the CAMI Drug Information Web Site for additional information (<http://jag.cami.jccbi.gov/toxicology/>).

- Benzodiazepines
- Barbiturates
- Antidepressants
- Antihistamines

2. Environmental Factors

Global Positioning System (GPS) coordinates were utilized to determine relevant environmental conditions for the accident location.

Latitude: N 25.74919498

Longitude: W -80.28496996

2.1. Weather

Historical data for weather station University of Miami Hecht Athletic Center (KFLLCORAL45), Coral Gables, Florida located approximately 2 miles from the crash site, was retrieved and examined.⁷ Observations for September 13, 2021, near the time of the crash, are shown in **Table 1** below.

Table 1: Weather Data from University of Miami Hecht Athletic Center

Time (EST)	7:53 p.m.	8:53 p.m.
Temperature	80° F	80° F
Dew Point	76° F	75° F
Humidity	87%	85%
Pressure	30.03 in	30.03 in
Visibility	10 mi	10 mi
Wind Dir.	calm	NNE
Wind Speed	0 mph	3 mph
Wind Gust Speed	N/A	N/A
Precipitation	N/A	N/A
Conditions	Mostly cloudy	Mostly cloudy

2.2. Astronomical Information

According to the Earth System Research Laboratory/Global Monitoring Division of the National Oceanic and Atmospheric Administration, apparent sunrise in the immediate area of this crash occurred at 6:06 a.m., and apparent sunset occurred at 6:27 p.m. This crash occurred at 8:55 p.m., during the nighttime lighting conditions.

⁷ Data obtained from <http://www.wunderground.com>.

D. DOCKET MATERIAL

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

LIST OF ATTACHMENTS

Human Performance Factors Attachment – Passenger Car Driver License History

Human Performance Factors Attachment – Passenger Car Driver’s Family Interview Transcript

Human Performance Factors Attachment – Passenger Car Driver’s Cell Phone Records

Human Performance Factors Attachment – Witness Interview Transcription

END OF REPORT

Kenneth Bragg

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