



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Washington, DC

Medical Factual Report

December 26, 2017

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Chief Medical Officer

A. ACCIDENT: ERA16FA215; State College, PA

On June 16, 2016, at 0830 eastern daylight time, a Piper PA-31-325, N3591P, was destroyed during collision with terrain while on approach to University Park Airport (UNV), State College, Pennsylvania. The airline transport pilot and passenger were fatally injured. The airplane departed Washington County Airport (AFJ), Washington, Pennsylvania, about 0800. Instrument meteorological conditions prevailed, and an instrument flight rules flight plan was filed for the on-demand air taxi flight, which was conducted under the provisions of 14 Code of Federal Regulations Part 135.

B. GROUP IDENTIFICATION

No group was formed for the medical evaluation in this accident.

C. DETAILS OF INVESTIGATION

1. Purpose

This investigation was performed to evaluate the pilot for any medical conditions, the use of any medications/illicit drugs, and the presence of any toxins.

2. Methods

The FAA medical case review, FAA blue ribbon medical file, autopsy report, toxicology findings, personal medical records, and the investigators' reports were reviewed.

FAA Medical Case Review and Blue Ribbon Medical File

According to the FAA files, the 60 year old male pilot reported 12,400 total flight hours as of his last aviation medical exam, dated 3/07/2016. According to the records, he was 73 inches tall and weighed 245 pounds at that time. Beginning in 2001, he had reported a diagnosis of multiple sclerosis (MS) with persistent weakness in the left leg due to a lesion in

his spinal cord. He received his first special issuance medical certificate in 2002. The pilot had been maintained on methotrexate to treat his MS for several years and a report from his neurologist present in his FAA files from 2/2/2016 documented his neurologic status was unchanged through that date. He also reported the use of omeprazole, a heartburn medication available over the counter and by prescription, often with the name Prevacid. Finally, at his last exam he reported new diagnoses of diabetes managed with diet (recent Hemoglobin A1C was 6.6%)¹ and obstructive sleep apnea (OSA) managed with bilevel positive airway pressure (BiPAP). The pilot was notably compliant with his use of BiPAP with use more than 99% of nights for more than 4 hours. On 4/18/2016, after review of his documents, the pilot was awarded a special issuance first class medical certificate limited by a requirement to wear corrective lenses for distant vision and have glasses for near vision and marked, "Not valid for any class after 03/31/2017."

Autopsy

According to the autopsy performed by ForensicDx, the cause of death was thermal injuries and the manner of death was accident. No significant natural disease was identified.

Toxicology

Toxicology testing performed by MolecularDx at the request of the pathologist identified caffeine. Toxicology testing performed by the FAA's Bioaeronautical Sciences Research Laboratory did not identify any tested-for substances.²

Personal Medical Records

Records from the pilot's primary care physician were obtained and reviewed. The pilot had a single visit to this physician on 3/3/2016 regarding a new diagnosis of diabetes. The pilot received instructions on eating a diabetic diet. In addition, the pilot reported his OSA and routine use of BiPAP as well as being "stable" as far as his multiple sclerosis symptoms.

D. SUMMARY OF MEDICAL FINDINGS

The 60 year old male pilot had multiple sclerosis with persistent but unchanged weakness in his left leg. He had diet-controlled diabetes with a recent Hemoglobin A1C of 6.6% and obstructive sleep apnea; records downloaded from his machine documented he was very compliant with his use of the prescribed treatment, bilevel positive airway pressure

¹ Hemoglobin A1C is a measure of the percentage of hemoglobin molecules that have a glucose molecule attached to them (what percentage have been glycosylated). It is used as a measure of average blood glucose over the preceding several weeks. Non-diabetic levels are below 5.4%. Between 5.5 and 6.4% is considered "pre-diabetes" and above 6.5% indicates diabetes. For diabetic individuals, levels below 7.0% are considered "good control."

² Testing included more than 1300 substances, see <http://jag.camii.jccbi.gov/toxicology/default.asp?offset=0> for a complete listing.

(BiPAP). According to the autopsy performed by ForensicDx, the cause of death was thermal injuries and the manner of death was accident. Toxicology testing identified only caffeine.