

# National Transportation Safety Board

Office of Research and Engineering

Washington, DC 20594



ERA23FA103

## MEDICAL

Specialist's Factual Report

March 30, 2023

## **A. ACCIDENT**

Location: Suffolk, Virginia  
Date: 1/7/2023  
Time: 12:13 Local  
Airplane: Piper PA28; N592FL

## **B. MEDICAL SPECIALIST**

Specialist Michelle Watters, MD, PhD, MPH  
National Transportation Safety Board, RE-1  
Washington, DC

## **C. DETAILS OF THE INVESTIGATION**

### **Purpose**

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

### **Methods**

The Federal Aviation Administration (FAA) medical certification file, FAA medical case review, the pilot's autopsy report, and FAA Forensic Sciences Laboratory toxicology report<sup>1</sup> were reviewed. Other relevant medical and regulatory issues were reviewed.

## **D. FACTUAL INFORMATION–PILOT**

### **1.0 FAA Medical Certification File and FAA Medical Case Review**

According to the FAA medical certification file and FAA medical case review, at the time of the accident, the 53-year-old male pilot held a third class medical certificate by special issuance with the limitation that he must have available glasses for near vision. At the time of his most recent and only exam (4/14/22), the pilot was 75 inches tall and weighed 233 pounds. He reported having 32 total flight hours. He reported taking famotidine and esomeprazole for gastric reflux, febuxostat to treat gout, and the anticoagulant apixaban to reduce his risk of blood clots. The pilot had a deep vein thrombosis and pulmonary embolism in 2016. He also reported having seasonal allergies.

---

<sup>1</sup> The FAA Forensic Sciences Laboratory has the capability to test for more than 1,000 substances including toxins, common prescription and over-the-counter medications, and illicit drugs. <https://jag.cami.jccbi.gov/toxicology/>

## 2.0 Autopsy

According to the autopsy report from the Commonwealth of Virginia, Office of the Chief Medical Examiner, Norfolk, Virginia, the pilot's cause of death was blunt force trauma to head, torso, and extremities, and the manner of death was accident. The examination was limited by extensive trauma; no brain was available for examination. No significant natural disease was identified by the pathologist.

## 3.0 Toxicology

Toxicology testing by the FAA Forensic Sciences Laboratory detected cetirizine in the pilot's liver and muscle tissue at 649 nanograms per gram (ng/gm) and 108 ng/gm, respectively. The generally non-impairing gastric reflux medication famotidine was also detected in his liver and muscle tissue.<sup>2</sup> No blood specimens were available for testing.

*Cetirizine* is a second-generation antihistamine used to relieve hay fever and allergy symptoms. It is available over the counter, commonly marketed as Zyrtec. Although designed to be less sedating, cetirizine does have some sedating properties. FAA provides guidance on wait times before flying after using this medication; post-dose observation time is 48 hours and the medication is not for daily use.<sup>3,4</sup>

## E. SUMMARY OF MEDICAL FACTS

The 53-year-old male pilot held a third class medical certificate by special issuance with the limitation that he must have available glasses for near vision. At the time of his most recent and only FAA medical certification exam (4/14/22), he reported a history of deep vein thrombosis and pulmonary embolism in 2016. He reported taking famotidine and esomeprazole for gastric reflux, febuxostat to treat gout, and the anticoagulant apixaban to reduce his risk of blood clots; he also reported having seasonal allergies. According to the autopsy, the pilot's cause of death was multiple blunt force trauma to head, torso, and extremities, and the manner of death was accident. Although the examination was limited by extensive trauma; no significant natural disease was identified.

Toxicology testing detected cetirizine in the pilot's liver and muscle tissue at 649 nanograms per gram (ng/gm) and 108 ng/gm, respectively. The generally non-

---

<sup>2</sup> FAA. Updated 1/16/19. Forensic Toxicology's WebDrugs. Famotidine.  
<https://jag.cami.jccbi.gov/toxicology/DrugDetail.asp?did=293>

<sup>3</sup> FAA. Updated 1/16/19. Forensic Toxicology's WebDrugs. Cetirizine.  
<https://jag.cami.jccbi.gov/toxicology/DrugDetail.asp?did=131>

<sup>4</sup> FAA. Updated 10/26/22. [AllergyAntihistamineImmunotherapyMedication.pdf \(faa.gov\)](#)

impairing gastric reflux medication famotidine was also detected in his liver and muscle tissue.

Submitted by:

Michelle Watters, MD, PhD, MPH  
Medical Officer, RE-1