

# National Transportation Safety Board

Office of Research and Engineering

Washington, DC 20594



WPR24FA104

## **MEDICAL**

Specialist's Factual Report

February 13, 2026

## TABLE OF CONTENTS

|     |                                                 |   |
|-----|-------------------------------------------------|---|
| A   | ACCIDENT.....                                   | 3 |
| B   | MEDICAL SPECIALIST.....                         | 3 |
| C   | DETAILS OF THE INVESTIGATION .....              | 3 |
| 1.0 | PURPOSE .....                                   | 3 |
| 2.0 | METHODS.....                                    | 3 |
| D   | FACTUAL INFORMATION.....                        | 3 |
| 1.0 | FAA MEDICAL CASE REVIEW.....                    | 3 |
| 2.0 | DEATH INVESTIGATION AND SHERIFF'S REPORTS ..... | 4 |
| 3.0 | AUTOPSY .....                                   | 4 |
| 4.0 | TOXICOLOGY.....                                 | 5 |
| 4.1 | FAA Toxicology Results.....                     | 5 |
| 4.2 | Descriptions of Detected Substances .....       | 5 |
| E   | SUMMARY OF MEDICAL FACTS.....                   | 7 |

## **A ACCIDENT**

Location: Cave Junction, Oregon  
Date: March 7, 2024

## **B MEDICAL SPECIALIST**

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## **C DETAILS OF THE INVESTIGATION**

### **1.0 Purpose**

This investigation was performed to evaluate the pilot for potentially impairing conditions and potentially impairing substances.

### **2.0 Methods**

The pilot's Federal Aviation Administration (FAA) medical case review, , autopsy report (including death investigation report), County Sheriff's Office field case report, and toxicology reports were reviewed. Selected NTSB investigator reports, and relevant regulation and medical literature were also reviewed.

## **D FACTUAL INFORMATION**

### **1.0 FAA Medical Case Review**

According to the FAA medical case review, the 77-year-old male pilot's last aviation medical examination was February 19, 2002. He reported a history of a military medical discharge and a hospital admission. No further explanations were available in the records. The pilot reported no medical conditions or medication use at that time. He was issued a second-class medical certificate with no limitations. The pilot's medical certificate subsequently expired. At the time of the accident, the pilot did not hold a current FAA medical certificate.<sup>1</sup>

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<sup>1</sup> Current FAA medical certification is not necessarily required for a pilot to exercise sport pilot privileges provided other requirements are met. Prohibitions on operations during medical deficiency apply (14 CFR Part 61.53).

## **2.0 Death Investigation and Sheriff's Reports**

According to death investigation information accompanying the autopsy report, the pilot's family reported that he had pilot had a history of high blood pressure, bipolar disorder, and depression. His medications reportedly included hydrochlorothiazide, a prescription diuretic commonly used to treat high blood pressure; amlodipine, a prescription medication used to treat high blood pressure; venlafaxine, a prescription medication commonly used to treat major depression; gabapentin, a prescription medication commonly used to treat nerve pain, seizures, and chronic pain; and sildenafil, a prescription medication commonly used to treat erectile dysfunction.

According to a County Sheriff's Office Field case report, a sheriff's deputy responded to the plane crash and secured the scene. Shortly after the pilot was identified, the Sheriff's deputy received a call from the County dispatch advising him that the pilot was the subject of a "mental" report that had been called in by the pilot's wife the night prior to the accident. According the field case report, the pilot's wife had called the Sheriff's office the night prior, as she believed that the pilot needed a mental health evaluation. After an argument at their home, the pilot locked himself in a room and threatened suicide. According to the field case report, the pilot's wife told the sheriff's office that the pilot had a history of manic-depressive episodes and that she was concerned that he was at risk for suicide. She reported the pilot had no history of suicide attempts; however, he had expressed suicidal thoughts on multiple past occasions. The pilot was evaluated by another Sheriff's deputy the night prior to the accident, and the pilot reported that he was under the care of a physician and took medication for his mental illness. He denied any intent for self-harm, and the deputy determined at that time that the pilot did not meet the criteria to be detained for safety. According to death investigation information, following the crash the pilot's wife stated that he would not have killed himself, due to his religious beliefs.

## **3.0 Autopsy**

The Office of the Medical Examiner of the State of Oregon performed the pilot's autopsy. According to the pilot's autopsy report, his cause of death was massive blunt trauma, and his manner of death was accident. Examination of the heart identified mild-to-moderate focal coronary artery disease approaching 40% narrowing. No additional anatomic detail regarding the coronary artery disease was documented. The remainder of the autopsy did not identify other significant natural disease.

## 4.0 Toxicology

### 4.1 FAA Forensic Sciences Laboratory Results

The FAA Forensic Sciences Laboratory performed toxicological testing of postmortem specimens from the pilot.<sup>2</sup> Diphenhydramine was detected in cavity blood at 140 ng/mL and detected in urine at 3562 ng/mL. Gabapentin was detected in cavity blood at 8786 ng/mL and detected in urine at 924,590 ng/mL. Venlafaxine was detected in cavity blood at 448 ng/mL and in urine at 12,019 ng/mL. Desmethylenlafaxine was detected in cavity blood and urine. Amlodipine, hydrochlorothiazide, and naproxen were detected in cavity blood and liver tissue. Chlorothiazide was detected in liver tissue and was not detected in cavity blood.

### 4.2 Descriptions of Detected Substances

Diphenhydramine is a sedating antihistamine medication widely available over the counter in multiple sleep aids and cold and allergy products. Diphenhydramine can cause cognitive and psychomotor slowing and drowsiness. It often carries a warning that it may impair performance of tasks like driving and operating heavy machinery.<sup>3,4</sup> The FAA states that pilots should not fly within 60 hours of using diphenhydramine, to allow time for it to be cleared from circulation.<sup>5,6</sup>

Gabapentin is a medication that is commonly used to treat nerve-related pain, and may also be used for seizures and other conditions. Gabapentin generally carries a warning that use may cause drowsiness, dizziness, and sedation. Precautions are advised for driving a vehicle or operating heavy machinery until the user can assess the impact of dosing on alertness and motor activities.<sup>7</sup> Gabapentin use in adults over

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<sup>2</sup> The FAA Forensic Sciences laboratory has the capability to test for around a thousand substances including toxins, prescription and over-the-counter medications, and illicit drugs.

<sup>3</sup> National Institutes of Health National Library of Medicine. Benadryl Allergy Liqui-Gels. DailyMed. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=bfeae100-e2d1-4607-be3b-2d9b15cd4f7f>. Updated November 8, 2025. Accessed January 23, 2026.

<sup>4</sup> Couper FJ, Huestis M, Fulford J, et al. Drugs and Human Performance Fact Sheets: 2024. Bts.gov. Published December 2024. <https://rosap.ntl.bts.gov/view/dot/78924>.

<sup>5</sup> Federal Aviation Administration. Guide for aviation medical examiners: pharmaceuticals (therapeutic medications) do not issue - do not fly. [https://www.faa.gov/ame\\_guide/pharm/dni\\_dnf](https://www.faa.gov/ame_guide/pharm/dni_dnf). Updated July 10, 2023. Accessed January 23, 2026.

<sup>6</sup> Federal Aviation Administration. Allergy - antihistamine & immunotherapy medication. Guide for Aviation Medical Examiners. [https://www.faa.gov/about/office\\_org/headquarters\\_offices/avs/offices/aam/ame/guide/media/AllergyAntihistamineImmunotherapyMedication.pdf](https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/aam/ame/guide/media/AllergyAntihistamineImmunotherapyMedication.pdf). Updated October 26, 2022. Accessed January 23, 2026.

<sup>7</sup> National Institutes of Health National Library of Medicine. Gabapentin capsule. DailyMed. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=e0cd96d1-b1ef-46ec-a5a3-9505b0811b8b>. Updated April 17, 2016. Accessed February 4, 2026.

the age of 65 may increase the risk of decline of executive function, information processing, and motor skills.<sup>8</sup> The FAA considers gabapentin a “do not issue/do not fly” medication.<sup>5</sup>

Venlafaxine is a prescription antidepressant medication. O-desmethylenlafaxine (also known as desvenlafaxine) is an active metabolite of venlafaxine and is also available as a prescription antidepressant medication. Venlafaxine has a variety of uses for depression, anxiety, nerve pain, and other conditions. Venlafaxine commonly carries a warning that it can cause drowsiness, and that users should not drive, operate heavy machinery, or do other dangerous activities until they know how the drug affects them. Caution is advised when using venlafaxine to treat depression associated with some types of bipolar disorder, as use may increase the risk of a manic episode.<sup>9</sup> One small study of healthy subjects given relatively low doses of venlafaxine did not find a significant impact of venlafaxine on psychomotor and driving tests, except for some diminished performance on a test of sustained vigilance.<sup>10</sup> Pilots that use venlafaxine may be considered for FAA medical certification via Special Issuance on a case-by-case basis, depending on an assessment of the underlying condition and response to treatment.<sup>11</sup>

Amlodipine is a prescription medication commonly used to treat high blood pressure. Hydrochlorothiazide is a prescription diuretic that may also be used to treat high blood pressure. Chlorothiazide can be found as an impurity in hydrochlorothiazide production. Chlorothiazide is also a prescription diuretic injection, used in hospitals for congestive heart failure.<sup>12</sup> Naproxen is an over-the-counter nonsteroidal anti-inflammatory medication used to treat minor to moderate

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<sup>8</sup> Oh G, Moga DC, Fardo DW, Abner EL. The association of gabapentin initiation and neurocognitive changes in older adults with normal cognition. *Front Pharmacol*. 2022;13:910719. Published 2022 Nov 25. doi:10.3389/fphar.2022.910719.

<sup>9</sup> National Institutes of Health National Library of Medicine. Effexor XR. DailyMed. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=c848a5d8-ba94-4c84-80e3-0bf35fb8e32e>. Updated August 15, 2023. Accessed January 26, 2026.

<sup>10</sup> O'Hanlon JF, Robbe HW, Vermeeren A, van Leeuwen C, Danjou PE. Venlafaxine's effects on healthy volunteers' driving, psychomotor, and vigilance performance during 15-day fixed and incremental dosing regimens. *J Clin Psychopharmacol*. 1998;18(3):212-221. doi:10.1097/00004714-199806000-00006.

<sup>11</sup> Federal Aviation Administration. Decision considerations - aerospace medical dispositions, item 47, psychiatric conditions - use of antidepressant medications. Guide for Aviation Medical Examiners. [https://www.faa.gov/about/office\\_org/headquarters\\_offices/avs/offices/aam/ame/guide/app\\_process/exam\\_tech/item47/amd/antidepressants](https://www.faa.gov/about/office_org/headquarters_offices/avs/offices/aam/ame/guide/app_process/exam_tech/item47/amd/antidepressants). Updated April 24, 2024. Accessed January 26, 2026.

<sup>12</sup> National Institutes of Health National Library of Medicine. Chlorothiazide sodium injection, powder, lyophilized, for solution. DailyMed. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=5b5d8a97-1428-4047-8e6c-b778429a26e4>. Updated May 13, 2023. Accessed January 29, 2024.

pain, inflammation and reduce fever.<sup>13</sup> Amlodipine, hydrochlorothiazide, chlorothiazide, and naproxen are not generally considered impairing.

## **E SUMMARY OF MEDICAL FACTS**

According to the FAA medical case review, the 77-year-old male pilot's last aviation medical examination was February 19, 2002. The pilot reported no medical conditions or medication use at that time. He was issued a second-class medical certificate with no limitations; this subsequently expired. At the time of the accident, the pilot did not hold a current medical certificate. FAA medical certification is not necessarily required for a pilot to exercise sport pilot privileges provided other requirements are met, including not flying during medical deficiency.

A death investigator report that was included with the autopsy report had documented medical information about the pilot obtained from the pilot's family. According to the pilot's family, the pilot had a history of high blood pressure, bipolar disorder, and depression. His medications included hydrochlorothiazide, amlodipine, venlafaxine, gabapentin, and sildenafil.

According to a County Sheriff's field case report, a sheriff's deputy responded to the plane crash. Shortly after the pilot was identified, the Sheriff's deputy received a call from the County dispatch advising him that the pilot was the subject of a "mental" report that had been called in by the pilot's wife the night prior to the accident. The pilot was evaluated by another Sheriff's deputy the night prior to the accident, and the pilot reported that he was under the care of a physician and took medication for his mental illness. He denied any intent for self-harm, and the deputy determined at that time that the pilot did not meet the criteria to be detained for safety.

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<sup>13</sup> National Institutes of Health National Library of Medicine. Naproxen sodium tablet. DailyMed. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=10ee5bc0-509d-b549-e063-6394a90a5dca>. Updated May 26, 2025. Accessed January 26, 2026.

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Submitted by:

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