

National Transportation Safety Board

Office of Research and Engineering

Washington, DC 20594



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MEDICAL

Specialist's Factual Report

May 28, 2026

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A. ACCIDENT

Location: Gainesville, Georgia
Date: October 18, 2024
Time: About 6:26 p.m. local time

B. MEDICAL SPECIALIST

Specialist Turan Kayagil, MD, FACEP
National Transportation Safety Board
Washington, DC

C. DETAILS OF THE INVESTIGATION

1.0 Purpose

This investigation was performed to evaluate the 81-year-old male pilot for potentially impairing or incapacitating medical conditions, substances, and exposures.

2.0 Methods

The Federal Aviation Administration (FAA) medical case review and the pilot's FAA medical certification file were reviewed.¹ Medical records were requested for the period of 3 years before the accident date from the pilot's cardiologist, primary care physician, and the Aviation Medical Examiner (AME) physician who performed the pilot's last FAA aviation medical examination and completed a 2022 BasicMed Comprehensive Medical Examination Checklist (CMEC). Those records were reviewed.² BasicMed information in the pilot's airman certification file was reviewed. Records were reviewed from the hospital to which the pilot was admitted following the accident. The pilot died in the hospital on October 20, 2024, and did not undergo an autopsy. At the request of the National Transportation Safety Board (NTSB), the FAA Forensic Sciences Laboratory performed toxicological testing of hospital admission specimens from the pilot. The report of this testing was reviewed. Selected investigator reports and relevant regulation and medical literature were also reviewed.

¹ The pilot's FAA medical certification file indicated that some additional files including diagnostic images were available on compact disc; these were not reviewed.

² Photographs provided by the NTSB investigator-in-charge of a hard copy of the 2022 CMEC form found in the aircraft also were reviewed; a copy of the same CMEC was reviewed in the records from the physician who completed it.

D. FACTUAL INFORMATION

1.0 FAA Medical Certification File

The pilot's FAA medical certification file documented past medical history including diabetes treated with oral medication, high blood pressure treated with medication, high cholesterol treated with medication, coronary artery disease with a heart attack in 2009 requiring quadruple coronary artery bypass graft (CABG) surgery for severe multivessel disease, ischemic cardiomyopathy, and past history of atrial fibrillation with use of a medication for heartrate control and a blood thinner medication for stroke risk reduction.

The FAA granted the pilot an Authorization for Special Issuance of medical certification in September 2010; this expired in June 2011 and was not renewed. The pilot's next application for medical certification was associated with his last aviation medical examination, which was June 12, 2018. At that time, the pilot reported using the medications metformin (a prescription oral medication that can be used to help control blood sugar in diabetes), atorvastatin (a prescription medication commonly used to help control cholesterol and reduce cardiovascular risk), carvedilol (a prescription medication that can be used to treat high blood pressure and heart failure, and for heartrate control in atrial fibrillation), and losartan (prescription medication commonly used to treat high blood pressure). The AME noted the pilot's cardiac and diabetes history and deferred the medical certification decision to the FAA.

The FAA subsequently requested and reviewed additional information from the pilot and granted him a new Authorization for Special Issuance and a third-class medical certificate in January 2019, but then withdrew the Authorization in September 2019 related to a question about one of the test reports the pilot had previously submitted. The pilot requested reconsideration, and submitted new information to address the question.

In January 2020, the FAA granted the pilot another Authorization for Special Issuance for third-class medical certification.³ The FAA also issued him a new third-class medical certificate at that time, on the basis of his June 2018 examination. The certificate was limited by a requirement to wear lenses for distant vision and to have glasses for near vision, and was not valid after June 2020. The Authorization expired after June 2024, and indicated that additional information would be required before

³ Medical conditions referenced in the Authorization were: history of myocardial infarction, angina pectoris, coronary artery disease, coronary artery bypass graft surgery, diabetes mellitus requiring oral hypoglycemic medication for control, and atrial fibrillation with use of apixaban. Additionally, high blood pressure meeting Conditions Aviation Medical Examiners Can Issue (CACI) criteria was noted in the Authorization letter.

the pilot's next medical certificate renewal. The pilot did not apply for medical certificate renewal, and his medical certificate and Authorization expired.

According to FAA records, the pilot completed a BasicMed Course on March 22, 2022, and reported completing a BasicMed CMEC on the same date.⁴ The pilot subsequently completed another BasicMed Course on March 4, 2024, and reported completing a BasicMed CMEC on March 3, 2024 (with the same physician who completed the 2022 CMEC). As discussed in section D.2.0 below, the 2022 CMEC examination actually was dated March 24, 2022 (two days after the 2022 course date), and this investigation found no evidence of a 2024 CMEC other than the pilot's self-report. The 2022 CMEC remained within its 48-month validity period as of the accident date.

Notably, with his history of heart attack and coronary heart disease that required treatment, the pilot met the requirement for having had a Special Issuance before flying under BasicMed provisions.⁵ He also met the BasicMed requirements that his most recent medical certificate must not have been suspended or revoked, his most recent Authorization for Special Issuance must not have been withdrawn, and his most recent medical certificate application must not have been denied.⁶

2.0 BasicMed Physician Records

A physical copy of a completed BasicMed CMEC was recovered from the accident airplane, with an examination date of March 24, 2022.⁷ The physician who completed the CMEC was also an AME, and had conducted the pilot's last FAA medical examination in June 2018. Records obtained from that physician included the March 2022 CMEC and did not document any other examination in the 3 years before the accident. Although the pilot reported to the FAA that the same physician completed a BasicMed CMEC on March 3, 2024, no documentation of such an examination was identified.

⁴ BasicMed provisions allow pilots who meet certain requirements to fly as pilot in command or as a required flightcrew member without current medical certification. Among those requirements, a pilot must have completed a BasicMed education course within 24 calendar months and must have had a medical examination with a state-licensed physician using the CMEC within 48 calendar months. Aircraft and operating restrictions apply. For details, see [14 Code of Federal Regulations \(CFR\) Part 68](#), [14 CFR 61.113\(i\)](#), [14 CFR 61.23\(c\)\(3\)](#), and https://www.faa.gov/licenses_certificates/airmen_certification/basic_med/. Prohibitions on operations during medical deficiency ([14 CFR 61.53](#)) and while using drugs that affect faculties in a way contrary to safety ([14 CFR 91.17\(a\)\(3\)](#)) apply.

⁵ [14 Code of Federal Regulations 68.9\(a\)\(3\)](#)

⁶ [14 Code of Federal Regulations 61.23\(c\)\(3\)](#)

⁷ A pilot exercising privileges under BasicMed is required to have the completed CMEC in his or her logbook ([14 Code of Federal Regulations 61.113\(i\)\(3\)\(i\)](#)). The FAA does not routinely collect the CMEC.

The March 24, 2022, CMEC documented that the pilot was using the medications metformin, atorvastatin, carvedilol, and losartan (the same medications he had reported at his last FAA medical examination). His history of 2009 heart attack and CABG were noted, as was his diabetes. He was noted to see a cardiologist annually and a primary doctor every 4 months, and to have had a hemoglobin A1c (HbA1c) of 6.7% as of March 22, 2022.⁸ An electrocardiogram (ECG) performed on the examination date showed sinus bradycardia with right bundle branch block, which the examining physician noted to be okay and unchanged from prior ECG testing. The examining physician certified that he was not aware of any medical condition that, as treated, could interfere with the pilot's ability to safely operate an aircraft.

3.0 Cardiology Records

Reviewed records from the 3 years before the accident date documented one cardiology examination visit, in June 2022, for routine follow up. The pilot's history of coronary artery disease with 2009 heart attack and bypass surgery was noted to be stable. His high blood pressure and high cholesterol were noted to be controlled by medication. His problem list included paroxysmal atrial fibrillation, but ECG showed sinus bradycardia with right bundle branch block, and a January 2019 Holter monitor study was documented as being normal, without atrial fibrillation. Other specialized cardiac studies were also documented. The most recent documented stress test was a November 2019 nuclear stress test, the results of which were consistent with a scar of 5-10% of the left cardiac ventricle muscle, similar to previous studies. Some new ST abnormalities were noted, as was below-average exercise tolerance. Left ventricular systolic function was normal. The test was characterized as intermediate risk. The most recent documented echocardiogram was in September 2021. This showed no changes from the prior echocardiogram; left ventricular systolic function was normal and right ventricular systolic function was low-normal.

4.0 Primary Care Records

The pilot's medical history as documented in reviewed primary care records was broadly consistent with the history documented in other reviewed records. The pilot's most recent primary care visit was in April 2024, for routine follow up. He was noted to be taking medications regularly for high blood pressure and diabetes, without new symptoms, medication side effects, or low blood sugar episodes. Both conditions were noted to be controlled and stable. HbA1c on the visit date was 6.2%.⁸ The pilot's medications were documented as metformin, atorvastatin, carvedilol, and losartan (medications previously reported to the FAA), as well as baby aspirin (a medication available without a prescription, commonly used to lower cardiovascular risk), fluticasone (a prescription steroid medication, in an inhaled form

⁸ HbA1c is an indirect measure of a person's average blood sugar over approximately the preceding 3 months. For a person with diabetes, HbA1c of less than 7% generally indicates good diabetes control.

that can be used to help prevent wheezing, and in a nasal form that can be used as needed for congestion), and vitamins. Primary care records also included a copy of an optometry note from a January 2024 eye examination that showed visually significant early cataracts of both eyes (with cataract surgery recommended), as well as mild changes of diabetic retinopathy.

5.0 Post-Accident Treatment Records

Post-accident hospital records, which included copies of emergency medical services (EMS) records, indicated that (as reported by the passenger), the pilot became suddenly unconscious during flight. One physician note documented history per the passenger that the pilot had crushing chest pain around that time; however, all other reviewed documentation indicated no symptoms preceded the loss of consciousness. EMS records indicated that, when EMS first arrived to the pilot, he was in cardiac arrest with asystole. Cardiopulmonary resuscitation (CPR) was started and on the next rhythm check the pilot was in cardiac arrest with ventricular fibrillation. After arriving to the hospital, the pilot regained a pulse, with sinus bradycardia. The pilot was critically ill from his cardiac arrest, and his blood sugar was elevated. ECG did not show an obvious acute heart attack, and the cardiology team deferred cardiac catheterization pending neurologic stabilization. However, subsequent testing revealed the pilot had a very poor neurologic prognosis due to his cardiac arrest, and the decision was made to transition care to comfort measures only. The pilot was declared dead in the hospital on October 20, 2024. Hospital records characterized the pilot's in-flight incapacitation event as ventricular fibrillation cardiac arrest.

According to death certificate information documented by a physician in the medical record, the pilot's cause of death was ventricular fibrillation, and his manner of death was natural. Hypertension, diabetes, and coronary artery disease were documented as significant conditions contributing to death. The pilot's past medical history as documented in the hospital record was broadly consistent with the history documented in other reviewed records.

6.0 Toxicology

A hospital drug screen performed using a urine specimen collected from the pilot on October 20, 2024, detected one drug class that could be attributed to medication administered to the pilot during his post-accident medical care. No other screened-for substances were detected.⁹

⁹ Screened-for substances were listed as methadone, benzodiazepines, cocaine, amphetamine, THC, opiate, barbiturate, fentanyl, PCP, and ethanol. Screening for benzodiazepines was positive; hospital records documented that benzodiazepine medication was administered after the accident, before the urine specimen was collected.

FAA Forensic Sciences Laboratory toxicology testing of hospital admission specimens from the pilot detected metformin, carvedilol, and atorvastatin in blood.¹⁰

Metformin is a prescription oral medication commonly used for blood sugar control in diabetes and prediabetes. Unlike some other diabetes medications, metformin has low potential to cause symptomatic low blood sugar.¹¹ Carvedilol is a prescription beta blocker medication that can be used to treat conditions including high blood pressure and heart failure, as well as to help maintain heart rate control in atrial fibrillation. Atorvastatin is a prescription medication commonly used to control cholesterol and reduce cardiovascular risk. These medications are not typically impairing and were consistent with home medications documented in reviewed records.

E. SUMMARY OF MEDICAL FACTS

The 81-year-old pilot's medical history included diabetes treated with oral medication, high blood pressure treated with medication, high cholesterol treated with medication, coronary artery disease with a heart attack in 2009 requiring quadruple coronary artery bypass graft (CABG) surgery, and past atrial fibrillation. His last FAA aviation medical examination was in June 2018, and his last medical certificate was a third-class certificate issued by the FAA in January 2020 under a January 2020 Authorization for Special Issuance. The certificate was limited by a requirement to wear lenses for distant vision and to have glasses for near vision, and was not valid after June 2020. The pilot subsequently completed BasicMed courses in March 2022 and March 2024. Although the pilot reported that his most recent BasicMed Comprehensive Medical Examination Checklist (CMEC) was in March 2024, records from the physician who the pilot reported performed that CMEC did not include such an examination. A March 2022 CMEC by the same physician was the only identified CMEC, and had not expired as of the accident date.

According to post-accident hospital records, the passenger reported that the pilot became suddenly unconscious during flight. Emergency medical services (EMS) found the pilot in cardiac arrest, initiated resuscitation attempts, and transported him to a hospital. With resuscitation, the pilot regained a pulse. Electrocardiography (ECG) did not show an obvious acute heart attack, and the cardiology team deferred cardiac catheterization pending neurologic stabilization. However, the pilot was transitioned to comfort care due to neurological injury from his cardiac arrest, and he died in the hospital on October 20, 2024. Hospital records characterized the pilot's

¹⁰ 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.

¹¹ Wexler DJ. Initial management of hyperglycemia in adults with type 2 diabetes mellitus. In: Connor RF, ed. *UpToDate*. Wolters Kluwer. <https://www.uptodate.com/contents/initial-management-of-hyperglycemia-in-adults-with-type-2-diabetes-mellitus>. Updated March 23, 2026. Accessed April 27, 2026.

in-flight incapacitation event as ventricular fibrillation cardiac arrest. A hospital physician documented the pilot's cause of death as ventricular fibrillation, and his manner of death as natural.

At the discretion of the medicolegal jurisdiction, the pilot did not undergo an autopsy. At the request of the NTSB, the FAA Forensic Sciences Laboratory performed toxicological testing of hospital admission specimens from the pilot. This testing detected metformin, carvedilol, and atorvastatin in blood. These medications are not typically impairing and were consistent with home medications documented in the pilot's records.

Submitted by:

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