



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Washington, DC

Medical Factual Report

July 18, 2022

Mary Pat McKay, MD, MPH
Chief Medical Officer

A. CRASH: CEN22FA208; Broomfield, CO

Date and time: May 22, 2022

Injuries: 2 fatal

B. GROUP IDENTIFICATION

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

C. DETAILS OF INVESTIGATION

1. Purpose

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

2. Methods

The FAA medical case review, autopsy reports, toxicology findings, and the investigator's preliminary report were reviewed. Relevant regulation and medical literature were reviewed as appropriate.

Pilot

FAA Medical Case Review

According to the FAA medical case review, the 50 year old male pilot had reported 0 flight hours as of his only aviation medical exam dated 6/19/2020. At that time, he was 68 inches tall and 203 pounds. He reported no chronic medical conditions but did report the use of atorvastatin, a cholesterol lowering drug which is not considered impairing. No significant abnormalities were identified and he was issued a third class medical certificated limited by a requirement he wear lenses for distant vision and have glasses for near vision.

Autopsy

According to the autopsy report issued by the Office of the Coroner, Adams and Broomfield Counties, Colorado, the cause of death was multiple blunt force injuries and the manner of death was accident. No significant natural disease was identified.

Toxicology

Toxicology testing performed by the FAA's Forensic Sciences Laboratory did not identify any tested-for substances.

Copilot

FAA Medical Case Review

According to the FAA medical case review, the 59 year old male copilot had reported 1900 flight hours as of his last aviation medical exam dated 2/17/2022. At that time, he was 75 inches tall and weighed 233 pounds. He had reported a history of kidney stones, sleep apnea with the use of a continuous positive airway pressure device as treatment, diet controlled diabetes, premature ventricular contractions (a heart arrhythmia) treated with an ablation (a procedure that electrically “zaps” the problem area of the heart muscle that causes the arrhythmia and stops it) and hypomania/anxiety to the FAA. He did not report the use of any medications during the last exam. No significant abnormalities were identified and he was initially issued a special issuance third class medical certificate which was then withdrawn when additional information was received that he was being treated with lamotrigine (a psychoactive drug commonly marketed as Lamictal) to treat his hypomania.

Autopsy

According to the autopsy report issued by the Office of the Coroner, Adams and Broomfield Counties, Colorado, the cause of death was multiple blunt force injuries and the manner of death was accident. No significant natural disease was identified.

Toxicology

Toxicology testing performed by the FAA's Forensic Sciences Laboratory identified tamsulosin, morphine, its metabolite hydromorphone, and dihydrocodeine in urine but none of these were identified in cavity blood.

Substance Descriptions

Tamsulosin is a prescription medication used to treat symptoms of an enlarged prostate and is commonly marketed with the name Flomax. It is not considered impairing.¹

¹ National Institutes of Health. US National Library of Medicine. DailyMed. Tamsulosin. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=339c3b57-a339-4578-bfd7-46b25d911ff6> Accessed 7/18/2022.

Morphine is an opioid analgesic available in oral in intravenous forms as a Schedule II controlled substance and hydromorphone is one of its metabolites. It carries a boxed warning about the risk of addiction, abuse and misuse as well as risks from the concomitant use with alcohol, benzodiazepines, or other central nervous system depressants resulting in the potential for profound coma or death.²

Dihydrocodeine is an active metabolite of hydrocodone and is also marketed on its own in combination with acetaminophen and caffeine. It is another opioid analgesic although with less abuse potential than morphine; it is classified as a Schedule III controlled substance. It carries this warning, “May impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery.”³

D. SUMMARY OF MEDICAL FINDINGS

Pilot

The 50 year old male pilot had reported no chronic medical conditions but did report the use of atorvastatin, a cholesterol lowering drug which is not considered impairing to the FAA.

According to the autopsy report issued by the Office of the Coroner, Adams and Broomfield Counties, Colorado, the cause of death was multiple blunt force injuries and the manner of death was accident. No significant natural disease was identified.

Toxicology testing performed by the FAA’s Forensic Sciences Laboratory did not identify any tested-for substances.

Copilot

The 59 year old male copilot had reported a history of kidney stones, sleep apnea with the use of a continuous positive airway pressure device as treatment, diet controlled diabetes, premature ventricular contractions (a heart arrhythmia) treated with an ablation (a procedure that electrically “zaps” the problem area of the heart muscle that causes the arrhythmia and stops it) and hypomania/anxiety to the FAA.

According to the autopsy report issued by the Office of the Coroner, Adams and Broomfield Counties, Colorado, the cause of death was multiple blunt force injuries and the manner of death was accident. No significant natural disease was identified.

² National Institutes of Health. US National Library of Medicine. DailyMed. Morphine. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=6fe62c06-5bab-4fc8-b546-ff015a1fc40c> Accessed 7/18/2022.

³ National Institutes of Health. US National Library of Medicine. DailyMed. Dihydrocodeine, acetaminophen, and caffeine. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=3ad82b67-f041-46df-8518-10debc35a5ed> Accessed 7/18/2022.

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