

National Transportation Safety Board

Office of Research and Engineering

Washington, DC 20594



CEN21LA067

MEDICAL

Specialist's Factual Report

September 2, 2022

A. ACCIDENT

Location: Telluride, Colorado
Date: 11/26/2020
Time: 12:59 Local
Airplane: Vans RV4; N87LW

B. MEDICAL GROUP

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

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 case review and the pilot's autopsy and FAA Forensic Sciences laboratory toxicology¹ reports were reviewed. Other relevant medical and regulatory issues were reviewed.

D. FACTUAL INFORMATION

1.0 Pilot

1.1 FAA Medical Certification File

According to the FAA medical certification file, at the time of the accident, the 48-year-old male pilot held a first class medical certificate with the limitation that he must wear lenses for distance and have glasses for near vision. At the time of the most recent exam (3/10/20), the pilot was 65 inches tall and weighed 156 pounds. He reported having 1,300 total flight hours. He reported taking no medications and having no medical conditions. No significant medical concerns were identified.

1.2 Autopsy

According to the autopsy authorized by the San Miguel County Coroner's Office, the cause of death in the pilot was multiple traumatic injuries and the manner

¹ The FAA Forensic Sciences Laboratory has the capability to test for more than 1,300 substances including toxins, common prescription and over-the-counter medications, and illicit drugs. <https://jag.cami.jccbi.gov/toxicology/>

of death was accident. No significant natural disease in the pilot was identified by the pathologist.

1.3 Toxicology

Toxicology testing performed by the FAA Forensic Sciences laboratory detected the opiate narcotic morphine in the pilot's urine at 34 nanograms per milliliter (ng/mL) but not in his cavity blood. The non-impairing pain reliever acetaminophen, commonly marketed as Tylenol, was detected in his cavity blood and urine. Morphine is prescribed for pain relief but may be present as a metabolite of the pain reliever codeine. The plasma half-life of codeine is around 3 hours and the half-life of morphine is around 4 hours. Both morphine and codeine are impairing medications and patients should not drive or operate dangerous machinery until they know how they react to the medication. Codeine is often prescribed in combination with acetaminophen.^{2,3}

E. SUMMARY OF MEDICAL FACTS

The 48-year-old male pilot held a first class medical certificate with the limitation that he must wear lenses for distance and have glasses for near vision. He reported taking no medications and having no medical conditions. According to the autopsy, the cause of the pilot's death was multiple traumatic injuries and the manner of death was accident. No significant natural disease in the pilot was identified. Toxicology testing detected morphine in the pilot's urine at 34 ng/mL but not in his blood. Acetaminophen was detected in his blood and urine.

Submitted by:

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

² FAA. Updated 1/16/19. Forensic Toxicology's WebDrugs.
Morphine. <https://jag.cami.jccbi.gov/toxicology/DrugDetail.asp?did=176>
Codeine. <https://jag.cami.jccbi.gov/toxicology/DrugDetail.asp?did=36>
Acetaminophen. <https://jag.cami.jccbi.gov/toxicology/DrugDetail.asp?did=2>

³ National Institutes of Health (NIH). U.S. National Library of Medicine (NLM). [DailyMed - ACETAMINOPHEN AND CODEINE PHOSPHATE tablet \(nih.gov\)](#) Updated 8/6/20.