



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Washington, DC

Medical Factual Report

December 22, 2016

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Chief Medical Officer

A. ACCIDENT: WPR15FA206; Carey, ID

On July 2, 2015, at an undetermined time, a Piper PA22-135, N8195C, collided with terrain near Carey, Idaho. The pilot was operating the airplane under the provisions of Title 14 Code of Federal Regulations (CFR) Part 91. The commercial pilot sustained fatal injuries. The airplane was destroyed during the accident sequence. The cross-country personal flight departed Moab, Utah, at 1726 mountain daylight time with a planned destination of Stanley, Idaho. Visual meteorological conditions (VMC) prevailed, and no flight plan had been filed.

B. GROUP IDENTIFICATION

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

C. DETAILS OF INVESTIGATION

1. Purpose

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

2. Methods

The FAA medical case review, toxicology results, autopsy report, and the investigator's reports were reviewed.

FAA Medical Case Review

According to the FAA medical case review, the 21 year old male pilot had reported 850 total flight hours as of his last medical exam, dated 05/29/2015. At that time, he was 73 inches tall and weighed 171 pounds. He had reported previous injuries and illnesses but no chronic medical conditions or medications to the FAA. At his last exam he was issued a second class medical certificate without limitations.

Autopsy

According to the autopsy performed at the request of the Blaine County Coroner, the cause of death was blunt force trauma due to a plane crash. No significant natural disease was identified.

Toxicology

Toxicology testing performed by the FAA's Bioaeronautical Research Sciences Laboratory identified ethanol at 0.064 gm/dl in lung, 0.062 gm/dl in heart, and 0.061 gm/dl in blood. In addition, N-propanol was identified in all three specimens.

Ethanol is the type of alcohol present in beer, wine, and liquor. It is a social drug that acts as a central nervous system depressant. After ingestion, at low doses, it impairs judgment, psychomotor functioning, and vigilance; at higher doses ethanol can cause coma and death. Generally, the rapid distribution of ethanol throughout the body after ingestion leads to similar levels in different tissues. Federal Aviation Regulations, Section 91.17 (a) prohibits any person from acting or attempting to act as a crewmember of a civil aircraft while having 0.040 gm/dl or more alcohol in the blood.¹ The effects of alcohol on aviators are generally well understood; alcohol significantly impairs pilots' performance, even at very low levels.²

A small amount of ethanol can be produced in tissues by microbial action post mortem, often in conjunction with other alcohols such as N-propanol, acetone, and methanol.³

D. SUMMARY OF MEDICAL FINDINGS

The 21 year old pilot in this accident had reported no chronic medical conditions or medications to the FAA. The autopsy did not identify any natural disease. Post mortem toxicology testing identified ethanol at 0.064 gm/dl in lung, 0.062 gm/dl in heart, and 0.061 gm/dl in blood. In addition, N-propanol was identified in all three specimens.

¹ US Government Printing Office .eCFR- Code of Federal Regulations. 91.17. <http://www.ecfr.gov/cgi-bin/text-idx?rgn=div8&node=14:2.0.1.3.10.1.4.9>. Accessed 11/16/2016.

² Cook, C.C., Alcohol and aviation. Addiction (Abingdon, England), 1997. 92(5):539-555.

³ Federal Aviation Administration. CAMI toxicology Drug Information for: Ethanol <http://jag.cami.jccbi.gov/toxicology/DrugDetail.asp?did=60> Accessed 12/14/2016.