



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Washington, DC

Medical Factual Report

May 11, 2017

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Chief Medical Officer

A. ACCIDENT: WPR16FA046; Alpine, WY

On January 4, 2016, about 1615 mountain standard time, an experimental Aerostar SA YAK-52, N912EB, collided with terrain while maneuvering near Alpine, Wyoming. Wyoming Wings LLC was operating the airplane under the provisions of Title 14 Code of Federal Regulations (CFR) Part 91. The private pilot and a private pilot rated passenger sustained fatal injuries. The airplane was destroyed during the accident sequence. The local personal flight departed Alpine about 1530. 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 and pilot rated passenger 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 for both occupants of the airplane.

Pilot

FAA Medical Case Review

According to the FAA files, the 61 year old male pilot reported 2,250 total flight hours at the time of his last aviation medical exam, dated 5/27/2014. At that time, he was 70 inches tall and weighed 212 pounds. He had previously reported high blood pressure and high cholesterol to the FAA.

When he applied for his last certificate, he reported a new diagnosis of type 2 diabetes controlled with oral medications. A report from the treating physician, dated 5/05/2014, showed a Hemoglobin A1c of 6.6%, glucose 95 md/dl and no neurologic, cardiac, ophthalmological or neurologic sequelae. These numbers indicate excellent control of his blood sugar. At the last exam, the pilot reported his medications included valsartan for blood pressure, ezetimibe and simvastatin in combination as well as fenofibrate for high cholesterol, and metformin for diabetes. None of these medications carry warnings about performance impairment.

The aviation medical examiner consulted the FAA regarding the new diagnosis of diabetes and the pilot was issued third class medical certificate limited by a requirement to wear corrective lenses.

Autopsy

According to the autopsy performed at the request of the Bonneville County Coroner's Office, the cause of death was severe blunt force impact trauma.

Examination of the body for natural disease was limited by the severity of the pilot's injuries; the heart and brain were both fragmented. Gross examination of the fragments of heart revealed significant atherosclerosis with 70 to 80% stenosis of the left anterior descending coronary artery and posterior circumflex, as well as 80% stenosis of the right coronary artery. In addition, microscopic evaluation of the heart revealed foci of interstitial fibrosis and fibrous repair change, indicating damage and scarring from previous ischemia.

Toxicology

Toxicology testing performed by the FAA's Bioaeronautical Research Laboratory identified valsartan in liver and kidney. No other tested for substances were identified. The absence of blood for toxicology testing precluded determination of the pilot's Hemoglobin A1C level.

Pilot Rated Passenger

FAA Medical Case Review

According to the FAA medical case review, the 17 year old female private pilot rated rear seat passenger had reported 12 total hours of flight experience as of her only medical exam, dated 5/21/2014. At that time, she was 69 inches tall and weighed 122 pounds and reported no medical problems and no medications to the FAA. She was issued a third class medical certificate without limitations.

Autopsy and Toxicology

No autopsy was performed on the passenger and no specimens for toxicology analysis were obtained.

D. SUMMARY OF MEDICAL FINDINGS

The 61 year old male pilot had reported having high blood pressure, high cholesterol, and a recent diagnosis of diabetes to the FAA. At time of his last medical exam, dated 5/27/2014, he reported using valsartan for blood pressure, ezetimibe and simvastatin in combination as well as fenofibrate for high cholesterol, and metformin for diabetes. Toxicology testing of available organ tissues identified only valsartan. None of these medications carry warnings about performance impairment. His treating physician reported excellent control of his diabetes on his treatment regimen with a Hemoglobin A1C of 6.6%. According to the autopsy performed at the request of the Bonneville County Coroner's Office, the cause of death was severe blunt force impact trauma. Examination of the body for natural disease was limited by the severity of the pilot's injuries but identified evidence of severe coronary artery disease with areas of up to 80% stenosis and microscopic evidence of damage to the heart muscle from previous ischemia.

The 17 year old female private pilot rated passenger in the rear seat had reported no medical conditions and no medications to the FAA during her only medical exam, dated 5/21/2014. No autopsy was performed and no specimens for toxicology analysis obtained.