



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Washington, DC

Medical Factual Report

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Chief Medical Officer

A. ACCIDENT: ERA15FA361; Spring Hill, FL

On September 18, 2015, about 0855 eastern daylight time, N8615Z, a Cessna U206E floated-equipped airplane, was substantially damaged when it collided with terrain near Spring Hill, Florida. The certificated commercial pilot was fatally injured. The airplane was registered to Keystone Seaplane, LLC, Odessa, Florida, and operated by the pilot. Instrument meteorological conditions prevailed at the time of the accident, and an instrument flight rules flight plan was filed for the flight that departed Page Airport (FMY), Fort Myers, Florida, about 0727. The personal flight conducted under the provisions of 14 Code of Federal Regulations Part 91.

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

FAA Medical File and Medical Case Review

According to the FAA files, the 56 year old male pilot initially applied for and received a medical certificate and student pilot certificate in 2006.

Records in the FAA file indicate the pilot was pulled over for reckless driving on September 15, 2007 and after a search of his vehicle he was

arrested and later convicted of the possession of 6 grams of marijuana along with related paraphernalia to smoke it. He completed 6 weeks of drug treatment and probation as a result of this conviction. When the FAA became aware of this event, records were required and reviewed. In 2009, the FAA determined that the pilot was eligible for a third class medical certificate.

The pilot reported 360 hours of flight experience as of his last medical exam, dated 8/11/2014. At that time, he was 71 inches tall and weighed 194 pounds. He had reported the use of testosterone and vitamin B12 on his last application and was issued a second class medical certificate limited by a requirement for corrective lenses.

The FAA records reflect a hotline complaint about the pilot was made on 9/15/2014 regarding his mental status and behavior including the fact that the pilot had recently sued his homeowner's association and neighbors over complaints they had made about his flying. On September 25, 2014, the FAA began its investigation into the allegations and required the pilot to provide information regarding an incident in June, 2007.

On June 9, 2007 the pilot had been committed to a psychiatric ward at the request of the police (under the requirements of the Baker Act). According to a copy of the police report obtained separately from the FAA medical file, this was the result of an episode where he had been using cocaine, had made comments to friends and family about suicide, and had been shooting guns inside his residence. According to friends and family, he was threatening to commit suicide using the firearm in his hand at the time. The medical records contained in the FAA medical file do not mention the use of guns during the incident, but describe an unkempt, paranoid person with racing thoughts at the time. Attempts to retrieve information regarding the 2006 event were unsuccessful as those records had been destroyed.

As part of the ongoing FAA investigation to determine the pilot's eligibility for a medical certificate, complete psychiatric and psychological evaluations were requested in February 2015. The reports from these evaluations are contained in the file; in each, the pilot denied the use of any illicit substance and reported only the occasional use of alcohol. In fact, no psychiatric or psychological diagnosis was made by either practitioner who examined the pilot. These reports were provided to the FAA in a letter dated April 16, 2015.

On August 10, 2015, the FAA referred all of the medical files on the pilot to the FAA's psychology consultant requesting an evaluation and determination of the pilot's eligibility for a medical certificate. No final determination had yet been made at the time of the accident.

Autopsy

According to the autopsy performed by the Florida Medical Examiner, District 5, the cause of death was multiple blunt force injuries due to airplane crash and the manner of death was accident.

The pilot's heart weighed 450 grams; average for a 194 pound man is 379 grams with a range of 287- 484 grams.¹ There was mild arteriosclerosis, with less than 30% luminal occlusion throughout. The left ventricular free wall measures 1.4 cm, the interventricular septum 1.4 cm and the right ventricle 0.3 cm. (Average is 1.3 cm and 0.3cm respectively.) The mitral and tricuspid valves showed mild nodular marginal thickening. The remainder of the heart was unremarkable.

Toxicology

Toxicology testing performed by the FAA's Bioaeronautical Research Laboratory identified metabolites of cocaine including anhydroecgonine methyl ester in liver and cavity blood as well as benzoylecgonine and ecgonine methyl ester in cavity blood. No parent drug (cocaine) was found.

D. SUMMARY OF MEDICAL FINDINGS

The 56 year old male pilot had reported a diagnosis of low testosterone and had reported the use of testosterone and vitamin B12 to the FAA. The autopsy identified mild cardiac enlargement and mild coronary artery disease. The FAA knew of the pilot's arrest and conviction for possession of marijuana in 2007. Following their investigation, the FAA determined the pilot was eligible for a medical certificate.

Allegations of psychiatric/psychological issues were made by hotline to the FAA in September 2014. The FAA began an investigation and obtained new historical information on the pilot (regarding previous, unreported, psychiatric commitments in 2006 and 2007) as well as requiring additional, current psychiatric and psychological evaluations. These evaluations were complete and delivered to the FAA in April but review by the FAA's psychology consultant had not been completed at the time of the accident. Post accident toxicology testing identified multiple metabolites of cocaine but no parent drug in the pilot's liver and cavity blood.

¹ Kitzman DW, Scholz DG, Hagen PT, Ilstrup DM, Edwards WD. Age-related changes in normal human hearts during the first 10 decades of life. Part II (Maturity): A quantitative anatomic study of 765 specimens from subjects 20 to 99 years old. Mayo Clinic Proc., 1988. 63(2):137-46.