



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Washington, DC

Medical Factual Report

August 2, 2016

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Chief Medical Officer

A. ACCIDENT: CEN15FA136; Argyle, TX

On February 4, 2015, about 2109 central standard time, a Cessna model 441 twin turbo-prop airplane, N441TG, was substantially damaged when it collided with terrain following a loss of control during an instrument approach to Denton Municipal Airport (DTO), Denton, Texas. The commercial pilot was fatally injured. The airplane was registered to Del Air Enterprises II, LLC, and was operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 while on an instrument flight rules (IFR) flight plan. Night instrument meteorological conditions prevailed for the cross-country flight that departed Willmar Municipal Airport (BDH), Willmar, Minnesota, about 1829.

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 52 year old male pilot received his first aviation medical certificate in 1990, limited by a requirement for corrective lenses and marked "valid for student pilot purposes only." He reported a childhood eye injury with very limited remaining vision in his

left eye. On June 18, 1991, after a review by an ophthalmologist and passing a medical flight test, the pilot was awarded a Statement of Demonstrated Ability (SODA) that authorized a third class medical certificate in spite of the absence of useful vision in his left eye. In 1995, he passed a medical flight test for a second class SODA in spite of his monocular vision.

He continued to routinely apply for and receive second class medical certificates through 2014. He did not report any medications or chronic medical conditions but over the years did report a hernia repair and other minor surgical procedures.

At the time of the pilot's last aviation medical exam, dated 01/13/2014 he reported 3900 total flight hours. At that time he was 67 inches tall and weighed 175 pounds and was issued a second class medical certificate limited by a requirement for corrective lenses.

Autopsy

According to the autopsy performed by the Office of Chief Medical Examiner, Tarrant County Medical Examiner's District, the cause of death was blunt force trauma due to light plane crash and the manner of death was accident.

The heart weighed 412 grams; average for a 176 pound man is 349 grams with a range of 265- 461 grams.¹ The autopsy report described 20 to 25% occlusion of the surface coronary arteries but the remainder of the heart examination was unremarkable.

Toxicology

Toxicology testing performed by the FAA's Bioaeronautical Research Laboratory did not identify any tested-for drugs or substances.

D. SUMMARY OF MEDICAL FINDINGS

The 52 year old male pilot had monocular vision as a result of a childhood injury and had passed medical flight testing for second class medical certification. His medical certificates were limited by a requirement for corrective lenses. He had reported no chronic medical conditions or medications to the FAA. The autopsy found mild coronary artery disease with areas of 20-25% stenosis but no other natural disease was identified. Post accident toxicology testing was negative.

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.