



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Washington, DC

Medical Factual Report

March 11, 2019

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Chief Medical Officer

A. ACCIDENT: CEN18LA245; Ashland, OH

On June 29, 2018, about 2000 eastern daylight time, a Balony Kubicek SPOL SRO BB 30Z standard hot air balloon, N717FN, experienced a surface wind that caught the balloon envelope and tipped the balloon basket and burner assembly over, following landing on a field near Ashland, Ohio. The instructor pilot on board was fatally injured. The student pilot and two passengers on board were not injured and the balloon was not damaged. The balloon was registered to and operated by the instructor pilot as a 14 Code of Federal Regulations Part 91 instructional flight. Day visual meteorological conditions prevailed, and a flight plan had not been filed for the local flight which departed from a nearby field about 1945.

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 medical conditions, the use of medications/illicit drugs, and the presence of toxins.

2. Methods

The FAA medical case review, autopsy report, toxicology findings, and the investigator's reports were reviewed. Other pertinent scientific and regulatory issues were also reviewed.

FAA Medical Case Review

According to the FAA medical case review, the 74 year old male balloon pilot had never applied for nor been issued an FAA medical certificate. As a balloonist, he was not required to hold a medical certificate.

Autopsy

According to the autopsy performed by the Cuyahoga County Medical Examiner, the cause of death was blunt force impacts to the head and neck. The pilot weighed 273 lbs and was 71 inches tall. The heart was enlarged: it weighed 710 grams and the left ventricle was 1.7 cm thick. Average heart weight for a 273 pound man is 436 grams with a range of 330 to 575 grams and average left ventricular thickness is 1.3 cm.¹ There was hemorrhagic pulmonary edema associated with the cardiomegaly.

According to the Coroner's Summary Report, the pilot had been hospitalized for blood clots a few months before the accident and had been started on warfarin. He had been diagnosed with prostate cancer in the months before the accident. He also had "high cholesterol and blood pressure issues." According to the Coroner's interview with the student pilot on the accident flight, the deceased pilot had recently been feeling unwell and occasionally had balance issues. He had not actually seen the deceased pilot fall.

Toxicology

Toxicology testing performed at the request of the medical examiner by the Cuyahoga County Regional Forensic Science Laboratory identified caffeine but no other tested-for substances.

Toxicology testing performed by the FAA's Bioaeronautical Sciences Research Laboratory identified terazosin and warfarin in heart blood and liver.²

Terazosin is a prescription medication used to treat symptoms from an enlarged prostate. It also has a mild effect on lowering blood pressure.³ Warfarin is a prescription blood thinner.⁴

D. SUMMARY OF MEDICAL FINDINGS

The 74 year old male balloon pilot did not hold a medical certificate. According to the autopsy performed by the Cuyahoga County Medical Examiner, the cause of death was blunt force impacts to the head and neck. The pilot weighed 273 lbs and was 71 inches

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.

² Testing included more than 1300 substances, see <http://jag.cami.jccbi.gov/toxicology/default.asp?offset=0> for a complete listing.

³ National Institutes of Health. US National Library of Medicine. DailyMed. Terazosin. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=43e92495-2cf2-46dd-a80c-f0c3c88c7b73> Accessed 3/5/2019.

⁴ National Institutes of Health. US National Library of Medicine. DailyMed. Warfarin. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=558b7a0d-5490-4c1b-802e-3ab3f1efe760> Accessed 3/5/2019.

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Toxicology testing in two separate labs identified caffeine in blood as well as terazosin and warfarin in heart blood and liver.