



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Washington, DC

Medical Factual Report

March 9, 2016

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Chief Medical Officer

A. ACCIDENT: ERA14LA290, Spring City, PA

On June 15, 2014, about 0715 eastern daylight time, a Cameron Balloons US Z-225 balloon, N65625, had the commercial-rated pilot receive fatal injuries when he fell from the basket during landing in a field near Spring City, Pennsylvania. The 10 passengers were not injured. There was no damage to the basket or envelope. The balloon was registered to Morning Star Visions, and operated by The United States Hot Air Balloon Team under the provisions of 14 Code of Federal Regulations (CFR) Part 91 revenue sightseeing flight. Visual meteorological conditions prevailed at the time and no flight plan was filed for the flight that originated about 0620 from Pottstown Municipal Airport, Pottstown, Pennsylvania.

B. GROUP IDENTIFICATION:

No group was formed for the medical investigation 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 certification file, toxicology results, autopsy report, and the investigator's reports were reviewed.

FAA Medical Certification file

According to the FAA blue ribbon medical file, the 47 year old male pilot first applied for a medical certificate in 2003. His application was complicated by his diagnosis of type-1 diabetes and the FAA requested additional health information. In several of the documents supplied to the

FAA, the pilot's physician notes, "diabetes, hypercholesterolemia, depression" on his problem list. A note dated 7/29/2003 recorded his current medications as Paxil (paroxetine, an antidepressant), Klonopin (clonazepam, a sedating benzodiazepine sedative available as a controlled substance and used to treat anxiety¹), Actos (pioglitazone, a drug to increase the body's ability to use its own insulin²), and insulin. After supplying additional information regarding his diabetes and reporting to the FAA that he had no longer used the Paxil or Klonopin after 2001, the pilot was issued a special issuance third class medical certificate marked as not valid for any class after August 31, 2006 and not valid outside the United States.

However, in March 2004, the FAA informed the pilot his combined use of Actos and insulin would not be allowed and his medical certificate was denied. He stopped using the Actos and supplied additional information. In September 2004, he was sent a letter that his medical certificate was again valid but would not be not valid after August 31, 2005 and renewal would require additional medical information. In 2005, his medical certificate was renewed through August, 2006. In 2006, in attempts to get better control of his blood sugar, the treating physician added Symlin (pramlintide, another drug used to treat diabetes³) and then Actos (pioglitazone). The pilot wrote the FAA to say he had grounded himself until the issues got worked out. In November 2006, he received another one year special issuance third class medical certificate.

In November 2007, he reapplied, but the information he sent the FAA was incomplete and a letter from his regular physician noted missed appointments and worsening control of his blood sugar. In February 2008, the FAA continued to ask for additional information. By May 2008, that information had been received and the pilot was issued a special issuance third class medical certificate, valid until November 2008. When he reapplied, his lab results showed poor control of his glucose.

In March 2009, the pilot applied for another medical certificate. According to the examination record, at that time he had 400 total flight hours and was 73 inches tall and weigh 210 pounds. In April, 2009, after review of additional medical information, he was issued a special issuance third class medical certificate, valid only until March 31, 2010. This was his last medical certificate. At the time of his fatal accident, the pilot was carrying paying passengers on a balloon flight; no medical certificate was required.

Autopsy

The autopsy was performed by a forensic pathologist at the Phoenixville Hospital at the request of the Chester County Coroner's Office. According to the report, the cause of death was neck injuries and the manner of death

was accident. Notes from the internal examination of the body were not provided or reviewed.

Toxicology

Toxicology testing was performed by the FAA's Bioaeronautical Research Laboratory. They identified bupropion, cetirizine, sildenafil and its metabolite desmethylsildenafil in femoral blood. In addition, bupropion and a metabolite, cetirizine, sildenafil and its metabolite desmethylsildenafil, rosuvastatin, and 7-Amino-clonazepam were found in the pilot's urine; rosuvastatin was also found in liver. Bupropion is an antidepressant used to treat depression and help patients quit smoking, often marketed with the names Wellbutrin and Zyban.⁴ It carries two warnings: 1) a dose dependent risk of seizures; and 2) may impair mental and/or physical ability required for the performance of potentially hazardous tasks (e.g., driving, operating heavy machinery).⁵ Cetirizine is a sedating antihistamine used to treat allergy symptoms and is available over the counter, also commonly named Zyrtec.⁶ It carries a warning that it may cause drowsiness. Sildenafil is a prescription drug used to treat erectile dysfunction, commonly known as Viagra.⁷ Rosuvastatin is a cholesterol lowering agent available by prescription and commonly marketed as Crestor, and 7-amino-clonazepam is a metabolite of clonazepam, which is described above.⁸

D. SUMMARY OF MEDICAL FINDINGS

The 47 year old male pilot in this balloon accident had diagnoses of type 1 diabetes, depression, and high cholesterol. His blood and tissue toxicology tests showed evidence of use of bupropion, cetirizine, sildenafil, and rosuvastatin. In addition, his urine tested positive for a metabolite of clonazepam. His aviation medical certificate had expired in 2010 and he was not required to have a valid medical certificate to pilot a balloon on a commercial flight with 10 passengers.

References

- ¹ Drugs.com. Official FDA prescribing information, side effects, and uses. Clonazepam. <http://www.drugs.com/pro/clonazepam.html> Accessed 3/9/2016.
- ² Drugs.com. Official FDA prescribing information, side effects, and uses. Pioglitazone. <http://www.drugs.com/pro/pioglitazone-tablets.html> Accessed 3/9/2016.
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- ⁴ Drugs.com. Official FDA prescribing information, side effects, and uses. Bupropion. <http://www.drugs.com/pro/bupropion.html> Accessed 3/9/2016.
- ⁵ Federal Aviation Administration. Forensic Toxicology Drug Information. Bupropion. <http://jag.cami.jccbi.gov/toxicology/DrugDetail.asp?did=20> Accessed 3/9/2016.
- ⁶ Drugs.com. Official FDA prescribing information, side effects, and uses. Cetirizine. <http://www.drugs.com/pro/cetirizine.html> Accessed 3/9/2016.
- ⁷ Drugs.com. Official FDA prescribing information, side effects, and uses. Viagra. <http://www.drugs.com/pro/viagra.html> Accessed 3/9/2016.
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