



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Washington, DC

Medical Factual Report

September 4, 2019

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Chief Medical Officer

A. ACCIDENT: ERA18FA240; Covington, TN

On September 1, 2018, about 1720 central daylight time, an experimental amateur-built JETEZ, N815EY, was destroyed when it experienced an in-flight breakup and impacted terrain while maneuvering at low altitude near Covington Municipal Airport (M04), Covington, Tennessee. The airline transport pilot was fatally injured. The airplane was operated by the pilot as a personal flight conducted under the provisions of Title 14 Code of Federal Regulations Part 91. Day visual meteorological conditions prevailed, and no flight plan was filed for the local flight.

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, FAA blue ribbon medical file, autopsy report, toxicology findings, and the investigator's reports were reviewed. Relevant regulation and medical literature were reviewed as appropriate.

Pilot

FAA Medical Case Review and Blue Ribbon Medical File

According to the FAA records, the 59 year old male pilot reported 22,000 total civilian flight hours as of his last medical exam, dated 3/22/2018. At that time, he was 69 inches tall and weighed 184 pounds.

He had reported having occasional outbreaks of herpes, hypertension, gastroesophageal reflux, and arthritis to the FAA. At his last exam he reported using low dose aspirin to prevent heart attacks, valacyclovir to treat herpes outbreaks; a combination of olmesartan, amlodipine, and hydrochlorothiazide to treat his hypertension; pantoprazole (commonly marketed as Protonix) to treat his reflux; and celecoxib (marketed as Celebrex) to treat his arthritis.^{1,2,3,4} None of these medications are considered impairing.

No significant abnormalities were identified on the exam and he was issued a first class medical certificate limited by a requirement that he wear corrective lenses.

Autopsy

According to the autopsy performed by the Office of the Medical Examiner, West Tennessee Regional Forensic Center, the cause of death was multiple blunt force injuries and the manner of death was accident. The external portion of the heart was charred; it weighed 295 grams. Calcific atherosclerosis was identified at 90% in the right, left anterior descending, and circumflex coronary arteries. Walls were thickened to 1.6 cm for the left ventricle and septum and 0.4 cm for the right ventricle. Microscopy of the heart demonstrated perivascular and interstitial fibrosis.

Toxicology

Toxicology testing performed by the FAA's Forensic Science Laboratory identified salicylate (a metabolite of aspirin), acetaminophen (commonly marketed as Tylenol), amlodipine (blood pressure medication), and timolol (used orally to prevent recurrent heart attacks and as an eye drop for glaucoma) in urine. Amlodipine but not timolol was found in cavity blood.^{5,6} None of these medications are considered impairing.

¹ National Institutes of Health. US National Library of Medicine. DailyMed. Valacyclovir.
<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=51f93a1c-90d0-4cbc-90f7-6f1415efd673>
Accessed 9/4/2019.

² National Institutes of Health. US National Library of Medicine. DailyMed. Tribenzor.
<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=5562b3f5-8757-11de-8a39-0800200c9a66>
Accessed 9/4/2019.

³ National Institutes of Health. US National Library of Medicine. DailyMed. Pantoprazole.
<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=f3ded82a-cf0d-4844-944a-75f9f9215ff0>
Accessed 9/4/2019.

⁴ National Institutes of Health. US National Library of Medicine. DailyMed. Celecoxib
<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=8d52185d-421f-4e34-8db7-f7676db2a226>
Accessed 9/4/2019.

⁵ National Institutes of Health. US National Library of Medicine. DailyMed. Timolol.
<https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=46726565-6d61-736f-6e73-344576657221>
Accessed 9/4/2019.

⁶ The laboratory at FAA Forensic Sciences Laboratory has the capability to test for more than 1300 substances including toxins, common prescription and over-the-counter medications as well as illicit drugs. See: <http://jag.cami.jccbi.gov/toxicology/default.asp?offset=0>

D. SUMMARY OF MEDICAL FINDINGS

The 59 year old male pilot had reported having occasional outbreaks of herpes, hypertension, gastroesophageal reflux, and arthritis to the FAA. At his last exam he reported using low dose aspirin to prevent heart attacks, valacyclovir to treat herpes outbreaks; a combination of olmesartan, amlodipine, and hydrochlorothiazide to treat his hypertension; pantoprazole (commonly marketed as Protonix) to treat his reflux; and celecoxib (marketed as Celebrex) to treat his arthritis. None of these medications are considered impairing.

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