



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Washington, DC

Medical Factual Report

April 26, 2019

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Chief Medical Officer

A. ACCIDENT: WPR18LA163; Mountain Home, ID

On June 2, 2018, about 1338 mountain daylight time, an experimental amateur-built North Wing Pulse 10 Meter hang glider, N62073, collided with the ground while participating in an airshow at Mountain Home Air Force Base (KMUO), Mountain Home, Idaho. The commercial pilot sustained fatal injuries and the hang glider sustained substantial damage. The hang glider was registered to and operated by the pilot under the provisions of Title 14 Code of Federal Regulations Part 91. The local flight departed KMUO, about 1332. Visual meteorological conditions prevailed, and no flight plan had been filed.

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 hang glider 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, records from a recent visit to an orthopedist, and the investigator's reports were reviewed.

FAA Medical Case Review

According to the FAA medical case review, the 62 year old male hang glider pilot had reported 1930 total hours of flight experience as of his aviation medical exam, dated 3/18/1996. At that time, he was 71 inches tall and weighed 140 pounds. He reported having paraplegia since a hang gliding accident in 1981 and associated neurogenic bladder. This was his

only application for an aviation medical exam. He reported the use of oxybutynin, a prescription drug used to treat spastic smooth muscle. Commonly marketed as Ditropan, the drug carries this precautionary warning, “Because anticholinergic agents such as oxybutynin may produce drowsiness (somnolence), or blurred vision, patients should be advised to exercise caution.”¹ As a result of the paraplegia and medication use, no medical certificate was issued and the pilot was scheduled for a Medical Test Flight. It is unclear from the records whether that flight ever took place. No aviation medical certificate was ever issued.

Autopsy

According to the autopsy performed at the request of the Elmore County Coroner's Office, the cause of death was traumatic blunt force injuries and the manner of death was accident. The autopsy noted the pilot had a history of paraplegia following a hang gliding accident in 1981. In addition, mild atherosclerotic cardiovascular disease was identified with up to 50% stenosis of the left anterior descending coronary artery.

Toxicology

Toxicology testing performed by the laboratory at FAA Forensic Sciences did not identify any tested-for substances.²

Personal Medical Records

Records from a single visit dated 5/29/2018 to an orthopedic surgeon were obtained and reviewed. The documentation from the visit notes the pilot had broken his neck at C7 in 1981 and that he had been a “partial upper and complete lower quadriplegic” since. He reported using oxybutynin to control his bladder symptoms. He was right hand dominant and his complaint at this visit was pain in his left shoulder and difficulty using his wheelchair. The physical exam demonstrated 60° of left shoulder abduction (raising to the side, normal is 150°) with limited internal rotation and 20° of external rotation (normal for both is about 90°). X-rays showed arthritis in the joint and the orthopedic surgeon discussed the need for a joint replacement procedure to address the severe problem. In the short term, a steroid injection into the shoulder was performed to limit any ongoing inflammation.

¹ National Institutes of Health. US National Library of Medicine. DailyMed. Oxybutynin, <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=f99fdfe8-a980-4a72-bc99-aa2ce0bdfd86> Accessed 4/24/2019.

² The laboratory at FAA Forensic Sciences 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> for a complete listing.

D. SUMMARY OF MEDICAL FINDINGS

The 62 year old male hang glider pilot in this accident had broken his neck in a hang gliding accident in 1981 and been a C7 quadriplegic since. He used oxybutynin, a potentially impairing medication to control the bladder symptoms from his spinal cord injury. He had reported these events to the FAA but was never issued a medical certificate.

According to the autopsy performed at the request of the Elmore County Coroner's Office, the cause of death was traumatic blunt force injuries and the manner of death was accident. Mild coronary artery disease was also found.

Toxicology testing performed by the laboratory at FAA Forensic Sciences did not identify any tested-for substances.

During the week before the accident, the pilot had visited an orthopedic specialist for an evaluation of several months of significantly decreased range of motion and limited functioning of his left shoulder that made it harder for him to operate his wheelchair. The diagnosis was primarily arthritis and they discussed a future joint replacement, but no definitive treatment was performed.