

National Transportation Safety Board

Office of Research and Engineering

Washington, DC 20594



Medical Factual Memorandum for Record

January 16, 2024

A. CASE

NTSB ID: ERA22FA243
Location: North Myrtle Beach, South Carolina
Date: May 28, 2022

B. MEDICAL SPECIALIST

Specialist Turan Kayagil, MD, FACEP
National Transportation Safety Board
Washington, DC

C. DETAILS

1.0 Description of Review

For purposes of evaluating the pilot for potentially impairing substances and potentially impairing medical conditions, the above Medical Specialist reviewed the following sources of medical information, along with selected relevant regulation, medical literature, and investigator reports.

- Final Federal Aviation Administration (FAA) medical case review
- Autopsy report – pilot
- Toxicology report – pilot

2.0 Summary of Medical Facts

The 56-year-old male pilot's last aviation medical examination was June 15, 2021. At that time, he reported no medication use and no active medical conditions.

The pilot had a statement of demonstrated ability (SODA) for defective color vision.¹ He was issued a second-class medical certificate limited by a requirement to wear corrective lenses.

The Medical University of South Carolina Department of Pathology and Lab Medicine, Charleston, South Carolina, performed the pilot's autopsy at the request of the Horry County Coroner. According to the pilot's autopsy report, his cause of death was multiple blunt force injuries and his manner of death was accident. An area of fibrosis involving the posterior wall of the left cardiac ventricle was identified, and was described as being consistent with old scarring from a previous heart attack. The remainder of the autopsy examination, including of the heart and coronary arteries, did not identify other significant natural disease.

Postmortem toxicological testing by the FAA Forensic Sciences Laboratory identified ethanol at 0.016 g/dL in the pilot's liver tissue. Ethanol was not detected in the pilot's vitreous fluid or brain tissue.

Ethanol is the intoxicating alcohol in beer, wine, and liquor, and, if consumed, can impair judgment, psychomotor performance, cognition, and vigilance.² FAA regulation imposes strict limits on flying after consuming ethanol, including a prohibition on piloting a civil aircraft while having a blood ethanol level of 0.04 g/dL or greater.³ Alcohol consumption is not the only possible source of ethanol in postmortem specimens. Ethanol can sometimes be produced by microbes in a person's body after death.⁴

Submitted by:

Turan Kayagil, MD, FACEP
Medical Officer

¹ The FAA may grant a pilot a SODA when the pilot's disqualifying condition has been determined to be static or nonprogressive and when the pilot has been found capable of performing airman duties without endangering public safety. A SODA does not expire and authorizes an AME to issue a medical certificate of a specified class if the AME finds that the condition described on the SODA has not adversely changed. Additional information about the SODA process is available on the [FAA AME Guide website](#).

² Cook CCH. Alcohol and aviation. *Addiction*. 1997;92(5):539-555.

³ [14 Code of Federal Regulations § 91.17](#).

⁴ Kugelberg FC, Jones AW. Interpreting results of ethanol analysis in postmortem specimens: a review of the literature. *Forensic Sci Int*. 2007;165(1):10-29. doi:10.1016/j.forsciint.2006.05.004.