

MEMORANDUM FOR RECORD

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Office of Aviation Safety-Eastern Region

Date: May 21, 2025

Subject: ERA23FA249

Contact: Medical Factual Information from NTSB Medical Officer

As part of the investigation, on May 22, 2024, a Medical Consult by a NTSB Medical Officer was requested for the investigation based on the pilot's autopsy report which documented severe coronary artery atherosclerosis including 90% narrowing of the left anterior descending artery. The Medical Consult request was also made due to the Federal Aviation Administration Forensic toxicology report which listed an unquantified amount of metformin in blood and urine.

A NTSB Medical Officer was assigned to the Medical Consult and provided the following Factual Information -

CASE-SPECIFIC MEDICAL EVIDENCE REVIEWED (FACTUAL)

- Final FAA Medical Case Review
- Autopsy Report
- FAA Forensic Sciences Laboratory Toxicology Report

AUTOPSY BASIC INFORMATION (FACTUAL)

Includes only information about who performed the autopsy, and the cause and manner of death information provided in the autopsy report. Any pertinent positive autopsy findings will be separately identified under "Pertinent Positives" below.

- The Lourdes Hospital Department of Pathology performed the pilot's autopsy as authorized by the Chenango County Medical Examiner's Office.

- According to the pilot's autopsy report, his cause of death was multiple blunt force injuries, and his manner of death was accident.

PERTINENT POSITIVES (FACTUAL)

Evidence of conditions or substances associated with increased risk of operator impairment or incapacitation:

- The pilot had a history of diabetes and moderate non-proliferative diabetic retinopathy treated with laser therapy. He reported taking metformin, a prescription medication commonly used to treat diabetes. His last aviation medical examination was April 4, 2023; at that time, he was issued a second-class medical certificate by Special Issuance, with the limitation that the certificate was not valid for any class after April 30, 2024. The pilot's most recent Authorization for Aviation-Medical-Examiner-Assisted Special Issuance for diabetes and diabetic retinopathy was granted May 1, 2023. The pilot's last hemoglobin A1c in March 2023 was 7.6%. (HbA1c is an indirect measure of a person's average blood sugar over approximately the preceding 3 months. For a person with diabetes, HbA1c of less than 7% generally indicates good diabetes control.)

- The pilot's autopsy revealed severe coronary artery atherosclerosis including 90% narrowing of the left anterior descending artery, and mild atherosclerosis of the aorta and cerebral arteries. The autopsy report documented cardiac hypertrophy and a mild increase in perivascular and interstitial fibrosis in the left ventricular wall on microscopy.

- FAA toxicology testing detected metformin in blood and urine. Glucose was measured in vitreous fluid at 13 mg/dL and in urine at 14 mg/dL. (The FAA Forensic Sciences Laboratory considers glucose levels above 125 mg/dL in vitreous fluid or above 100 mg/dL in urine to be abnormal.)

DESCRIPTIONS OF PERTINENT POSITIVE SUBSTANCES (FACTUAL)

- Metformin - Metformin is a prescription medication commonly used to help control blood sugar in diabetes and prediabetes. Metformin is not typically impairing.