

# National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



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## **WRECKAGE EXAMINATION**

April 12-18, 2024

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## **A. ACCIDENT**

**Location:** Powell, Tennessee

**Date:** April 12, 2024

**Time:** 1633 EDT

**Aircraft:** Piper PA-32R-301

**Registration:** N9236J

## **B. WRECKAGE EXAMINATION**

Investigation Team:

|                  |                                                                |
|------------------|----------------------------------------------------------------|
| IIC              | Eric Alleyne<br>NTSB - ERA<br>Georgia                          |
| FAA Inspector    | David Clouse<br>FAA/Nashville FSDO<br>Nashville, TN.           |
| Lycoming Engines | Russel Gait<br>Air Safety Investigator<br>Williamsport, PA.    |
| Piper            | Johnathon Hirsch<br>Air Safety Investigator<br>Vero Beach, FL. |

## **C. SUMMARY**

**D.** On April 12, 2024, about 1633 eastern daylight time, a Piper PA-32R-301, N9236J, was destroyed when it was involved in an accident near Powell,

Tennessee. The commercial pilot was fatally injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

## **E. DETAILS OF THE EXAMINATION**

### **1.0 Accident Site**

The wreckage was located in a wooded area near a residential neighborhood. The main wreckage, consisting primarily of the fuselage, was found in a nose-down attitude on a wooded hillside. The debris field extended over a distance of several thousand feet and was oriented along the final flight path. Multiple aircraft components, including portions of the empennage and wings, were located at varying distances from the main wreckage. The distribution of debris, including major structural components separated from the fuselage, was consistent with an in-flight breakup.



Figure 1 - Main Wreckage Site

### **2.0 Airframe Examination**

The wreckage was examined on scene and during a follow-up examination after recovery. The wreckage was examined and documented at the accident site on April 13, 2024. A follow-up examination on the airframe and engine was performed on April 17, 2024, at Atlanta Air Recovery.

## **2.1 Fuselage**

The fuselage was found in a nose-down attitude and exhibited extensive impact damage. The cabin structure was crushed, and portions of the cabin top had been cut and removed by first responders. The instrument panel and cockpit controls were impact damaged. Due to the extent of impact damage, control positions at the time of impact could not be determined. Flight control continuity was established from the cockpit to the respective control surfaces except for separations consistent with overload or cuts made during recovery. The fuel selector and associated components were impact damaged, and the selected position could not be determined.

## **2.2 Empennage**

The empennage components were separated from the fuselage and located along the debris path. The vertical stabilizer and rudder were separated, with portions of the rudder remaining attached. The stabilator was separated into multiple sections. The stabilator trim jackscrew exhibited a position consistent with a full nose-down trim setting. Flight control cables associated with the empennage remained attached where observed, with separations consistent with overload.

## **2.3 Wings**

Both wings were separated from the fuselage. The left wing was located approximately one-quarter mile from the main wreckage and remained largely intact. The wing exhibited leading-edge damage and separation at the wing root. The main landing gear was observed in the extended position. The right wing was fragmented, with components distributed along the debris path. Portions of the wing structure, including skin panels and control surfaces, were found separated from the main wreckage. Examination of the wing structures revealed fracture surfaces consistent with overload. Several control cable ends exhibited a "broomstraw" appearance consistent with tensile overload failure.

## **2.4 Landing Gear**

The nose landing gear assembly was separated from the fuselage and located near the main wreckage. The main landing gear associated with the left wing was observed in the extended position. Portions of the right main landing gear remained with the fuselage structure.

## **2.5 Cockpit**

The cockpit was extensively damaged due to impact forces. The instrument panel and engine controls were impact damaged, and control positions could not be determined.

## **2.6 Survivability**

The accident was not survivable due to the extent of impact damage and in-flight breakup.

## **2.7 Fuel/Fuel System**

The fuel system components were impact damaged. The fuel strainer screen was examined and appeared free of contamination. Fuel was present within portions of the fuel system examined.

## **3.0 Engine Examination**

The engine was partially buried at the accident site and exhibited significant impact damage. A post-recovery examination of the engine revealed mechanical continuity of the crankshaft and camshaft. There was no evidence of preimpact lubrication anomalies or internal engine failure. Fuel system components, including the fuel servo and flow divider, were examined and revealed no evidence of contamination. Fuel was present within the system. Ignition components were impact damaged, and continuity could not be fully determined for all components due to impact damage.

## **4.0 Propeller Examination**

The three-blade propeller remained attached to the engine crankshaft flange. Two blades remained attached to the hub, and one blade was separated and bent aft. All blades exhibited leading-edge damage, chordwise scratching, and torsional twisting. The observed damage was consistent with rotation under power at impact.

Submitted by:

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