

National Transportation Safety Board

Office of Aviation Safety

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WRECKAGE EXAMINATION

June 20, 2024

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A. ACCIDENT

Location: Colquitt, Georgia
Date: June 5, 2024
Time: 0630 EDT
1030 UTC
Airplane: N8715L; Piper PA-25-235

B. WRECKAGE EXAMINATION

Investigation Team:

IIC	Ralph E. Hicks NTSB - ERA Marietta, Georgia
FAA Inspector	James Manning FAA/Atlanta FSDO Atlanta, Georgia
Senior ASI	James Childers Lycoming Engines Williamsport, Pennsylvania

C. SUMMARY

On June 5, 2024, about 0630 eastern daylight time, a Piper PA-25-235 airplane, N8715L, was substantially damaged when it was involved in an accident near Colquitt, Georgia. The commercial pilot sustained minor injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 137 aerial application flight.

D. DETAILS OF THE EXAMINATION

1.0 Accident Site

The accident site consisted of a wooded area in a swamp. The lower section of the fuselage and engine compartment were submerged in swamp water. The NTSB did not travel to the site.

2.0 Airframe Examination

The wreckage was examined and documented at Atlanta Air Recovery, Griffin, Georgia on June 20, 2024.

2.1 Fuselage

The fuselage was generally intact. The wings were separated from impact forces. There was a distinct water line revealing where the fuselage was found in the swamp.

2.2 Empennage

The fabric-covered empennage was generally intact with minor damage noted. The right horizontal stabilizer and elevator were removed to facilitate recovery from the swamp. Rudder control continuity was confirmed from the control surface attachments to the rudder pedals in the cockpit.

2.3 Wings

The left wing sustained substantial damage from impact. There was substantial damage to the structural components of the wing, with deformation of the wing spar and lift struts. The aileron remained attached to the wing and was bent/deformed. The flap remained partially attached and was severed near mid-span. Flight control continuity was not attempted due to the circumstances of the accident.

The right wing separated from the fuselage from impact with trees. It was found adjacent to the main wreckage. There was substantial damage to the structural components of the wing, with deformation of the wing spar and lift struts. The aileron was partially attached to the wing and was crushed/deformed. The flap remained attached and was deformed. Flight control continuity was not attempted due to the circumstances of the accident.

2.4 Landing Gear

The three landing gear remained attached to the fuselage. The left, main gear was generally intact and undamaged. The right main landing gear had bending damage and deformation/fractures of the gear attachment tubing. The tailwheel was intact and undamaged.

2.5 Cockpit

The cockpit was undamaged. The four-point harness and seat were undamaged. The engine tachometer read 3943.9 hours. The fuel shutoff valve T-handle was found in the fully down (open) position; however, impact damage to the lower fuselage and removal of the section that included the engine/firewall/fuel tank and shutoff valve during wreckage recovery prevented investigators from determining the pre-accident position.

2.6 Survivability

N/A.

2.7 Fuel/Fuel System

The airplane was fitted with a single, fuselage-mounted fuel tank. The fuel filler cap was secure and in place. No signs of fuel leakage were observed.

The fuel shutoff valve from the fuel tank to the gascolator was removed. The position of the valve prior to the accident could not be determined due to impact damage and deformation to the forward fuselage and engine mount. When the valve was manipulated manually, investigators noted that the through-port was not totally obstructed when placed to the "closed" position. The valve arm moved back and forth with minimal resistance. The valve was then disassembled and the connection to the interior plastic sleeve was broken and the sleeve did not move when the valve was actuated. The valve was sent to the NTSB Materials Laboratory for further examination.

The gascolator bowl and screen were removed. Residue on the screen and in the bowl resembled sand, grit and unknown organic matter, and water. Of note, the lower fuselage in the area of the gascolator was found submerged in swamp water at the accident site.

At the request of the NTSB IIC, Atlanta Air Recovery personnel examined the vent line for the fuel tank; it was clear and unobstructed.

3.0 Engine Examination

The engine was lifted with a hoist to facilitate the examination. The engine was still partially attached to firewall.

The engine controls to the carburetor were examined; continuity was established.

No obstructions were noted inside the intake to carburetor; the intake was crushed.

The engine's top spark plugs were removed to facilitate manual rotation of the engine. The oil suction screen removed; there were no particulates noted and the oil appeared fresh. The oil filter was removed for examination. The paper element was clean and free of metallic particulates.

The magnetos were removed for testing. The ignition harness was in good condition; one lead showed chafing and was cut by investigators. Investigators tested both magnetos by rotating with an electric drill. A strong, blue spark was observed on all leads when rotated.

The engine was then turned through manually by rotating the propeller. The engine rotated through 720° without binding or restriction. There was impact damage to cylinders the nos. 2, 4, and 6 pushrod tubes. Strong compression/suction on cylinder nos. 1,2,3 and 5 was observed with the thumb method. Weak compression was initially observed on cylinder nos. 4 and 6. Investigators staked the nos. 4 and 6 valves with metal hammer; that resulted in strong compression/suction on nos. 4 and 6.

No engine-driven fuel pump was installed.

The carburetor was removed and partially disassembled. The bowl contained water and unknown organic matter. No evidence of fuel was noted. The brass floats were undamaged and the weld seams were intact; no evidence of internal fluid was noted. The inlet fuel screen clean and unobstructed. The venturi was intact and unobstructed. The accelerator pump operated normally.

4.0 Propeller Examination

One propeller blade was bent aft about 45° at about mid-span and twisted toward the blade face. That blade exhibited leading edge gouging near the blade tip. The other blade was bent aft about 30° at about 2/3 span and twisted toward the blade face.

Removed propeller to confirm model # 1A200 FA8452 and serial # APB46005.

Submitted by:

Ralph E. Hicks
Sr. Air Safety Investigator, NTSB