

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



ERA25FA151

WRECKAGE EXAMINATION

March 22, 2025

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A. ACCIDENT

Location: LaFayette, Georgia
Date: March 20, 2025
Time: 1430 EDT
1830 UTC
Airplane: N969SS; Cirrus SR22

B. WRECKAGE EXAMINATION

IIC	Joshua Young National Transportation Safety Board Washington, DC
Party Coordinator	Brian Williamson FAA/FSDO Atlanta, GA
Party Coordinator	Julie Crowell Continental Aerospace Technologies Mobile, AL
Party Coordinator	John Goebel Cirrus Aircraft Duluth, MN

C. SUMMARY

On March 20, 2025, at 1430 eastern daylight time, a Cirrus SR22, N969SS, was destroyed when it was involved in an accident near LaFayette, Georgia. The private pilot and flight instructor were fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

D. DETAILS OF THE INVESTIGATION

1.0 Accident Site

The airplane came to rest about 25 ft in the grass off the right side of runway 20 at Barwick LaFayette Airport (9A5), Lafayette, GA about 20 ft past the runway threshold. The wreckage was located at an altitude of 776 ft and on a magnetic heading of about 340° and was inverted. There was extensive thermal damage to the airplane. An initial impact mark and scraping to the runway was located about 175 ft.

Multiple pieces of right wing structure were found strewn along the debris path. Multiple propeller strike marks were found on the runway pavement about 20 ft from the initial impact mark. A Sentry ADS-B receiver was found about 40 ft from the main wreckage in the debris path.



Photo 1: Overview of the main wreckage.



Photo 2: View from initial impact point of the accident site.

2.0 Airframe Examination

2.1 Fuselage

The fuselage exhibited extensive thermal damage from firewall to tail with postaccident fire damage to all components. The bonded roll cage was consumed by postaccident fire.



Photo 3: View of the remnants of the fuselage.

2.2 Empennage

The empennage exhibited extensive thermal damage. Elevator and rudder control continuity were confirmed from the attachment at the flight control surfaces to the cockpit through an area of thermal damage consistent with the location of the oxygen bottle.



Photo 4: View of the empennage.

2.3 Aircraft Wings

The right wing exhibited thermal damage with remnants of the spar remaining. The flap actuator jackscrew and shaft were found in the wreckage with 3 inches of the jackscrew exposed. The left wing exhibited thermal damage. Aileron control for both wings was confirmed from the flight control surface bellcranks to the cockpit through impact fractured turnbuckles. The aileron console actuator pulley was intact with cables going around and through the pulley gang.



Photo 5: View of the right wing.



Photo 6: View of a piece of right wing leading edge found in the debris path.



Photo 7: View of lateral scratching on the right wing leading edge piece.



Photo 8: View of the left wing.



Photo 9: View of flap jackscrew with scale. (Cirrus Photo)

2.4 Landing Gear

The nose landing gear remained attached to the fuselage with damage to the nose wheel fairing. The main landing gear exhibited thermal damage.



Photo 10: View of the nose and left main landing gear.

2.5 Cockpit

The cockpit exhibited extensive thermal damage and was unrecognizable.



Photo 11: View of the cockpit area. (Cirrus Photo)

2.6 Survivability

The cockpit was consumed by postaccident fire. Both front seat seatbelt airbags were found out of the cover and attached.

2.7 Fuel/Fuel System

The fuel selector was not located in the wreckage debris. The gascolator remained attached to the firewall. It was removed and examined and was free of debris.



Photo 12: View of the gascolator screen.

2.8 Other Systems

The CAPS system rocket ignited during the postaccident fire. The CAPS parachute was found in the wreckage still packed and exhibited thermal damage. The CAPS parachute risers were consumed by fire. Part of a strap found in the middle of the runway was still folded with red thread used to keep it folded unbroken. Lanyards were found with no collar, broom strawed, and shackled together. The strap cover was partially intact and found about 125 feet from the wreckage.



Photo 13: View of a portion of a CAPS strap on the runway.

The oxygen bottle was found discharged in the wreckage and the valve stem exhibited impact damage.



Photo 14: View of the oxygen bottle.

3.0 Engine Examination

The engine exhibited thermal and impact damage. The crankshaft was rotated by hand using a tool inserted into an accessory drive pad. Crankshaft, camshaft, and valvetrain continuity was confirmed through multiple rotations of the crankshaft. Valves for cylinder Nos. 1, 2, 3, 4, and 6 moved freely. The No. 5 cylinder exhibited impact damage.



Photo 15: Overview of the engine.



Photo 16: View of damage to the No. 5 cylinder.

3.1 Induction and Exhaust System

The induction air filter contained a small amount of organic debris. The induction tubing and piping exhibited impact and thermal damage. Both turbo charger shafts spun freely when rotated by hand.

The exhaust system was intact and exhibited impact damage. Multiple pieces were cut to facilitate examination and remove the engine from the firewall.



Photo 17: View of the induction air filter.

3.2 Magnetos

The airplane was equipped with one standard magneto and one electronic magneto both of which remained secure to the engine. The standard magneto was removed from the engine and rotated by hand. The impulse coupling snapped, and spark was observed from all towers. The electronic magneto was not removed.



Photo 18: View of the standard magneto. (Continental Photo)

3.3 Ignition System

The ignition harness exhibited thermal and impact damage. All 6 top sparkplugs were removed and examined; the No. 5 sparkplug exhibited impact damage. Nos. 1, 3, and 5 were a fine-wire type sparkplug consistent with use of the electronic magneto installed. Nos. 2, 4, and 6 were a massive electrode type sparkplug consistent with use of the standard magneto installed. All sparkplugs exhibited normal wear when compared to the Champion Aerospace Aviation Check-A-Plug chart.



Photo 19: View of sparkplugs Nos. 1-3.



Photo 20: View of sparkplugs Nos. 4-6.

3.4 Fuel System

The fuel pump remained attached to the engine with the throttle control installed correctly. The pump was removed and there was fuel present. The driveshaft remained intact, and the pump turned freely by hand. The mixture control was found to be installed correctly on the throttle body/fuel control manifold and the valve operated as expected. The fuel manifold was installed correctly, and all lines were tight. Fuel was present inside the valve and a minimal amount of debris was noted in the fuel screen. The fuel injector nozzles were installed correctly and upon removal for examination were found normal and clear.

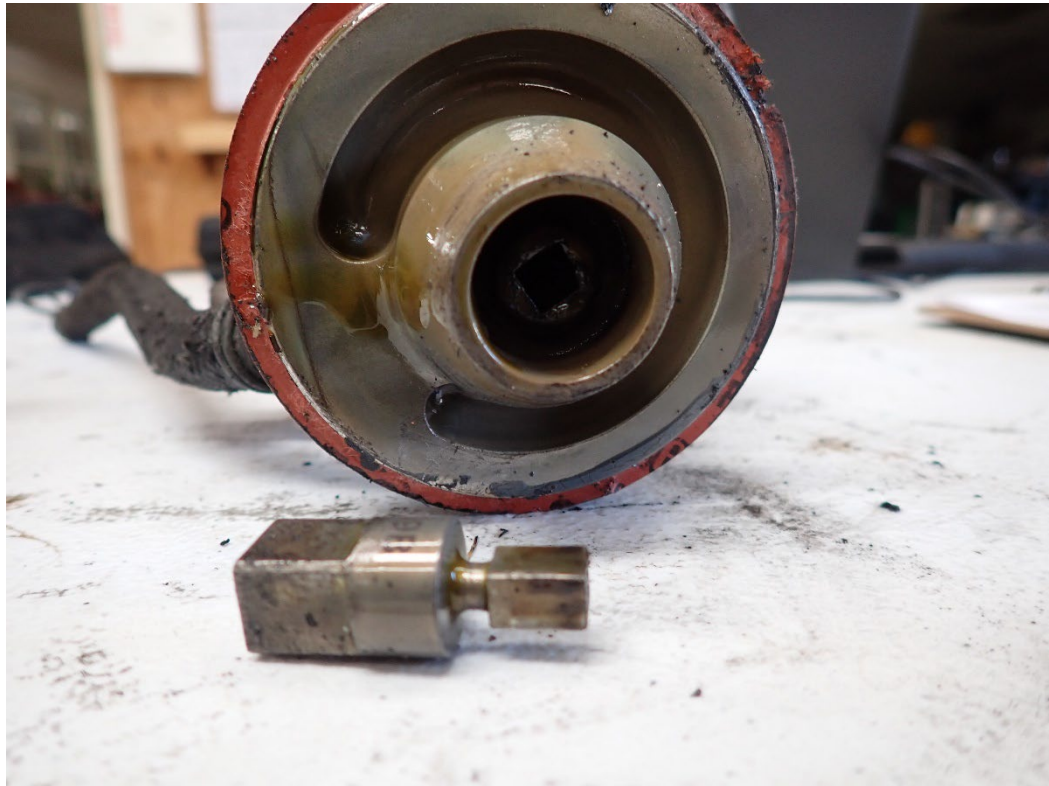


Photo 21: View of the fuel pump and driveshaft. (Continental Photo)

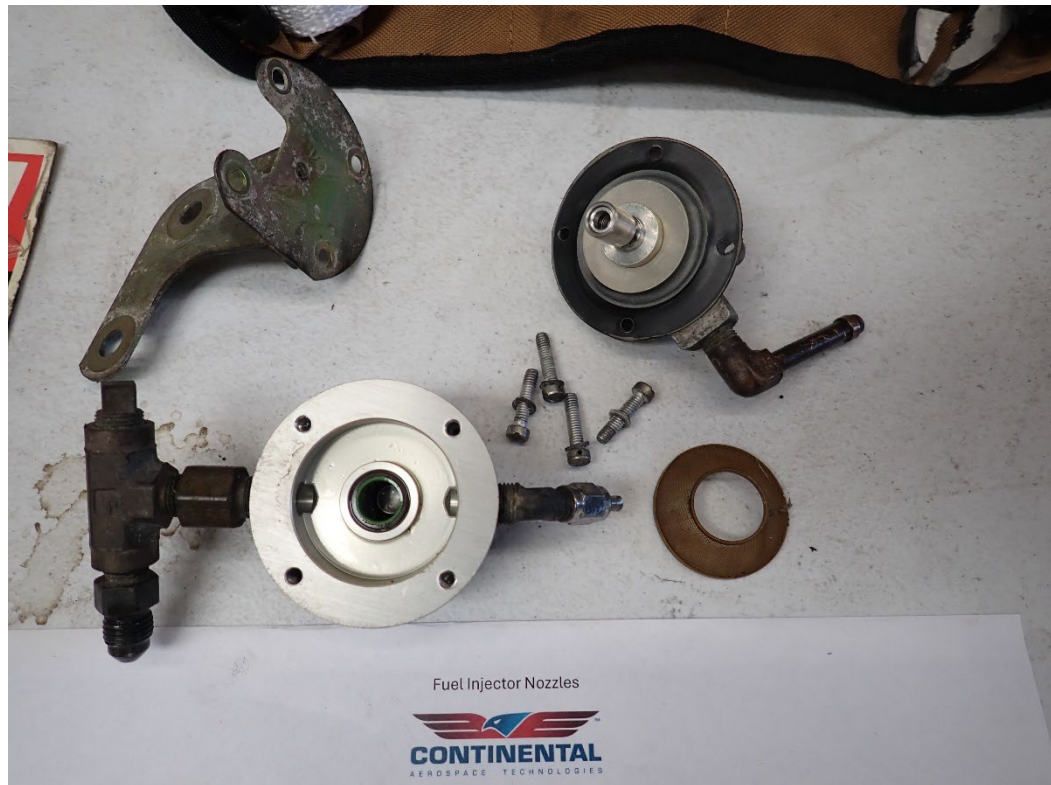


Photo 22: View of the disassembled fuel manifold. (Continental Photo)



Photo 23: View of the fuel injector nozzles. (Continental Photo)

3.5 Lubrication System

The oil filter remained installed on the engine. The oil filter was dated 2/20/2025 with a time of 3173.8. The filter was removed and cut open and no contamination was noted in the filter pleats.



Photo 24: View of the oil filter canister.



Photo 25: View of the oil filter pleats.

4.0 Propeller Examination

The 4 bladed M&T propeller remained attached to the crankshaft flange and was impact separated from the engine. All 4 blades remained secure in the propeller hub and were equipped with an anti-icing system. The propeller blades were found as follows:

- Ground down to the hub.
- Impact separated 6 inches from the hub.
- Impact separated 12 inches from the hub.
- Impact separated 15 inches from the hub.

The propeller governor remained attached to the engine and the control arm remained attached to the governor. The governor oil gasket screen was free of debris.



Photo 26: View of the propeller at the accident site.



Photo 27: View of the sheared crankshaft flange attached to the propeller.



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Photo 28: View of the propeller governor installed on the engine.

5.0 Aircraft Information

According to FAA airworthiness records, the airplane was manufactured in 2006 and was purchased by the pilot in October 2021. It was powered by a Continental IO-550-N series, 310-horsepower engine equipped with a M&T propeller.

6.0 Meteorological Information

K9A5 201855Z AUTO 30005G08KT 10SM SCT041 07/M01 A2997 RMK A02 T00741006
K9A5 201835Z AUTO 33010KT 10SM SCT043 08/M01 A2997 RMK A02 T00761011
K9A5 201815Z AUTO 26007KT 10SM SCT041 08/00 A2996 RMK A02 T00831005

Submitted by:

Josh Young
Air Safety Investigator