

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



ERA24FA261

EXAMINATION SUMMARY

July 27, 2026

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A. ACCIDENT

Location: Siler City, North Carolina
Date: June 14, 2024
Time: 1248 EDT
1648 UTC
Airplane: Piper PA-28-140, N515DH, SN: 28-25331

B. EXAMINATION SUMMARY

IIC	Damian Galbraith NTSB -OAS Vero Beach, FL
Party Coordinator	Shane Graham FAA/FSDO Greensboro, NC.
Party Coordinator	John Hirsh Piper Aircraft, Inc. Vero Beach, FL.
Party Coordinator	Mike Childers Lycoming Engines Williamsport, PA

C. SUMMARY

On June 14, 2024, at 1248 eastern daylight time, a Piper PA-28-140, N515DH, was destroyed when it was involved in an accident near Siler City, North Carolina. The flight instructor and student pilot were fatally injured. The airplane was operated by Executive Flight Training and Services LLC as a Title 14 *Code of Federal Regulations* Part 91 instructional flight.

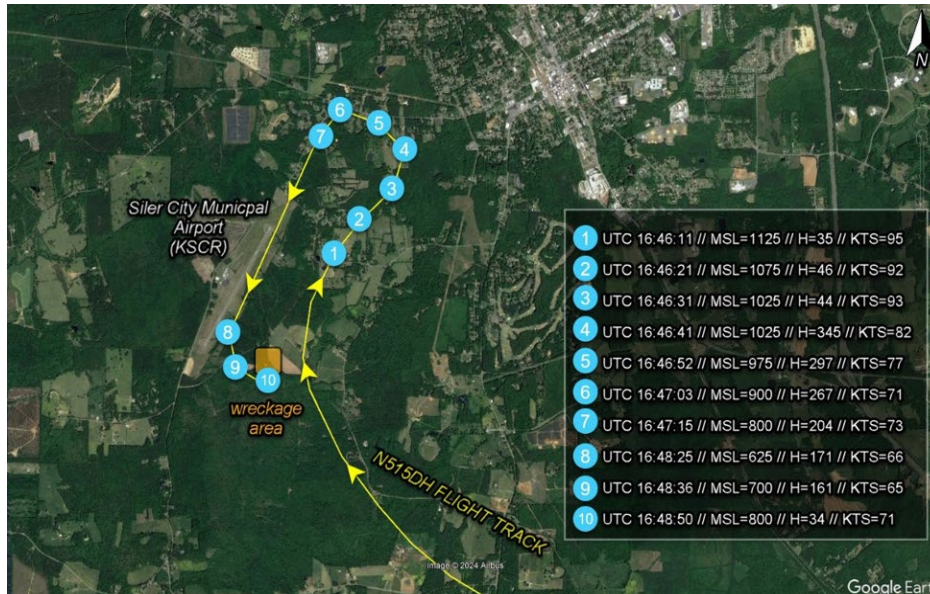
A witness who was performing hay baling of the grass area surrounding the runway stated that he saw the accident airplane taking off. He reported that the airplane "looked different" like it was "flying sideways." As it climbed east of the runway, the airplane "almost rolled over on its side and went into a nosedive;" until ground impact, which was followed by rising black smoke.

ADS-B track data from the FAA depicted the accident airplane's traffic pattern entry, and its flight on the downwind leg about 1,100 ft mean sea level (msl) around

90 knots (kts) groundspeed. The airplane turned and slowed on the left base leg to the low 80-kt range, and then entered the final approach leg, slowing into the low 70-kt range before the ADS-B track data was lost.

About 1 minute later, the track data resumed in the vicinity of the runway's departure end at 625 ft msl and 66 kts ground speed. Over the next 25 seconds, a 90° left turn was depicted. The final two targets displayed 700 ft and 65 knots, and 800 ft and 71 knots; respectively, before track data ended.

The field elevation at SCR was 615 ft msl.



FAA ADS-B Flight Track Data. Times are reported as coordinated universal time (UTC) (NTSB).

D. DETAILS OF THE EXAMINATION

1.0 Accident Site

The accident site was located in wooded terrain about 2,260 ft southeast of the departure end of runway 22 of SCR. Examination of the wreckage revealed that the airplane came to rest in its initial impact crater at 562 ft elevation, oriented 330° magnetic, and was mostly consumed by a postcrash fire that extended to the empennage. The leading edges of both wings displayed uniform crushing across their entire spans. The engine was exposed, and the propeller, while buried, remained attached. The engine accessories were destroyed by fire.



Photograph of accident site and main wreckage. (Courtesy of Piper)

2.0 Airframe Examination

2.1 Fuselage

The fuselage was mostly destroyed by the postaccident fire. The cabin door remained attached to the fuselage and was mostly destroyed. The instrument panel and engine controls were destroyed. The recording tachometer was thermally damaged with its indicator static about 2,300 RPM. The flap lever exhibited impact and thermal damage. Flap control continuity was established from the lever to the flap torque tube. Impact and thermal damages precluded verification of flap position; however, the flaps were observed in the retracted position. Flight control continuity was established from the cockpit to each control surface.



Photograph of fuselage. (Courtesy of Piper)



Photograph of tachometer. (Courtesy of Piper)



Annotated Piper photograph of the recording tachometer with transparent overlaid photograph of similar make/model tachometer. (NTSB)

2.2 Empennage

The vertical stabilizer and rudder remained attached to their mounts and exhibited thermal discoloration to their right sides. The stabilator assembly remained attached to its mounts with thermal damage and discoloration noted to its right side. The top of the stabilator trim barrel exposed about 5 threads of the jackscrew which corresponded to a neutral trim setting.



Photograph of empennage. (Courtesy of Piper)

2.3 Wings

The left and right wings were partially separated from the fuselage and exhibited thermal and impact damage. The flaps and ailerons remained attached to the wings. The lift detector was thermally separated from the left wing.



Photograph of left wing. (Courtesy of Piper)



Photograph of right wing. (Courtesy of Piper)

2.4 Fuel/Fuel System

The left- and right-wing fuel caps remained attached to their receptacles and the fuel tanks were destroyed from impact and thermal damage. The fuel primer plunger was stowed and locked. The fuel strainer bowl was covered in soot, and the surrounding structure was impact damaged. No liquid was observed in the strainer bowl, and the fuel strainer screen was free of blockage. The electric fuel pump was thermally damaged and could not be tested. The fuel selector handle was consumed by fire. The fuel selector valve was impact and thermally damaged, which allowed the valve shaft to rotate freely in the valve housing. The fuel selector valve and handle positions at the time of impact could not be determined.



Photograph of gascolator and electric fuel pump. (Courtesy of Piper)



Photograph of fuel selector valve. (Courtesy of Piper)

3.0 Engine Examination

Examination of the engine revealed that the rear-mounted accessories were destroyed by fire. The carburetor was thermally damaged and partially separated from the engine, and its fuel inlet screen was clear of debris, and its internals were thermally damaged. The throttle and mixture control cables remained attached to the carburetor. The induction alternate air box was crushed, and its position was unknown due to thermal and impact damage. The engine driven fuel pump and both magnetos were mostly destroyed by fire. The spark plug electrodes were gray in coloration and normal wear when compared to the Champion Check-A-Plug card. The starter and alternator were impact damaged and partially separated from the engine. The intake tubes, exhaust tubes, and the exhaust muffler were partially crushed. The crankshaft flange was bent, and the starter ring gear support was fragmented.

The engine was suspended from a lift and partially disassembled to facilitate examination. The exhaust tubes were cut and the muffler removed. The propeller and starter ring gear support were removed, and the bent portion of the crankshaft flange cut away to allow the crankshaft to be rotated through 360°. The engine crankshaft was rotated using a tool inserted in the engine accessory case vacuum pump drive pad. Continuity of the crankshaft to the rear gears and to the valve train components was confirmed. Compression and suction were attained from all 4 cylinders. The interiors of the cylinders were observed with a lighted borescope and no anomalies were noted. Oil was observed in the sump, and the oil pump suction screen was clear of debris. Thermal damage was noted to the oil filter media.



Photograph of engine. (Courtesy of Lycoming)



Photograph of engine accessory section. (Courtesy of Lycoming)



Photograph of carburetor.
(Courtesy of Lycoming)



Photograph of carburetor float and inlet screen.
(Courtesy of Lycoming)

4.0 Propeller Examination

The Sensenich aluminum two-bladed propeller was attached to the engine crankshaft flange. The propeller spinner was impact crushed. One propeller blade was deformed aft about 45° about mid-span and exhibited longitudinal twisting toward the blade face. The other blade was deformed aft about 30° with longitudinal twisting toward the blade face. Chord-wise abrasions were noted to both blades.



Photograph of propeller. (Courtesy of Lycoming)

5.0 Pilot Information

The flight instructor held a commercial pilot certificate with ratings for airplane single-engine land, multiengine land, and instrument airplane. He held a flight instructor certificate with a rating for airplane single-engine. His Federal Aviation Administration (FAA) first class medical certificate was issued May 13, 2022. The operator used the pilot's logbook and company records to estimate 682 total hours of flight experience, of which 297 hours were in the accident airplane make and model. The flight instructor's father estimated his son had accrued 850 to 900 hours of flight experience.

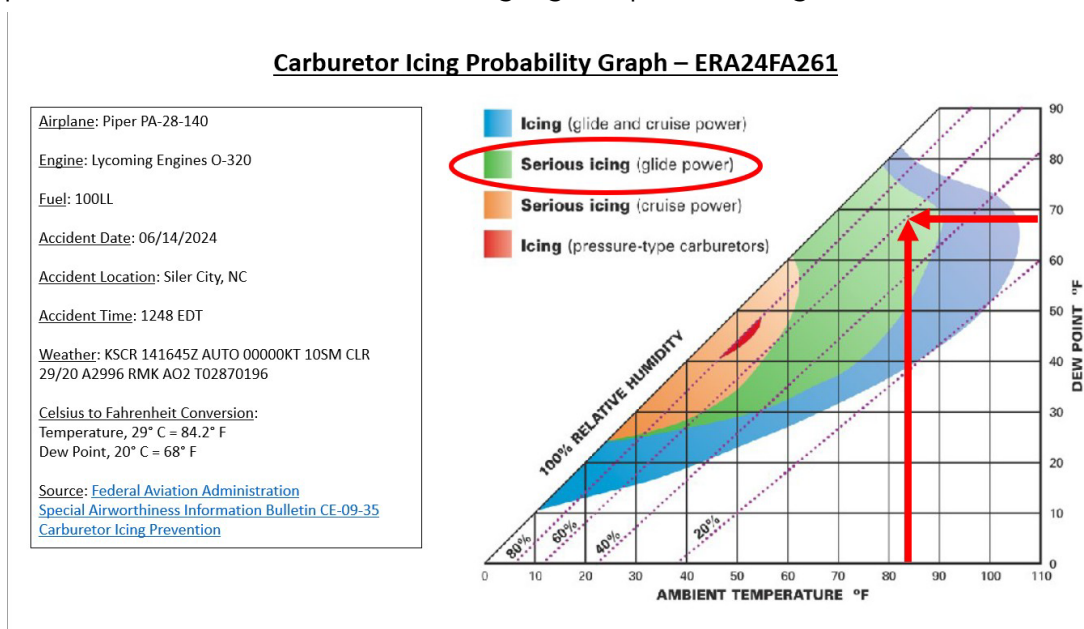
The student pilot was issued an FAA first class medical certificate on December 18, 2023. Paperwork provided by the operator indicated that the student had accrued about 25 total hours of flight experience.

6.0 Aircraft Information

The airplane was manufactured in 1969 and was powered by a Lycoming O-320-E2D, 150-horsepower engine. Its most recent annual inspection was completed June 6, 2024, at 5,882.6 total aircraft hours.

7.0 Additional Information

The recorded temperature and dew point near the accident site was about 84.2 and 68 degrees, respectively. On a carburetor icing probability chart, those temperatures were in the "serious icing - glide power" range.



FAA Carburetor icing probability graph. (NTSB)

ADS-B data from the FAA reveal that the airplane departed from the Raleigh Executive Jetport at Sanford-Lee County Airport (TTA), Sanford, NC, about 1229 EDT and entered the left downwind at Siler City Municipal Airport (SCR), about 1246. The airplane departed TTA with an unknown amount of fuel.

Submitted by:
Damian Galbraith
Aviation Accident Investigator
NTSB - OAS