

# National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN24FA164

## **ON-SCENE EXAMINATION SUMMARY**

April 23-24, 2024

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## **A. ACCIDENT**

Location: Spicewood, Texas  
Date: April 22, 2024  
Time: 1825 central daylight time (CDT)  
2325 coordinated universal time (UTC)  
Airplane: N550NL, Lancair Legacy FG

## **B. ON-SCENE EXAMINATION SUMMARY**

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## **C. SUMMARY**

On April 22, 2024, about 1826 central daylight time, an experimental, amateur-built Lancair Legacy FG airplane, N550NL, was destroyed when it was involved in an accident near Spicewood, Texas. The pilot was fatally injured. The flight was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

Automatic Dependent Surveillance-Broadcast (ADS-B) data from the FAA revealed the accident flight was the second flight of the day. The airplane departed from Garner Field Airport (UVA), Uvalde, Texas about 1721 CDT and was destined for Spicewood Airport (88R), Spicewood, Texas. The airplane entered a left traffic pattern for runway 17 at 88R about 1821 CDT. According to a witness that was piloting an airplane in the traffic pattern, the pilot of accident airplane announced over the common traffic advisory frequency (CTAF) his intentions to land. The witness observed the accident airplane enter a left traffic pattern and approach to land on runway 17. He further stated that he observed the accident airplane begin a rapid and steep climb away from the runway and sharp, low altitude left turn to the east. The accident pilot announced over the CTAF that he was "going around". As the witness pilot was performing a 360° turn to allow more spacing between the two airplanes, he observed the accident airplane close to the runway and expected him to land. He extended his downwind leg of the traffic pattern to allow the accident airplane time to exit the runway. As the witness pilot transitioned from base to final,

he observed a large fire just east of the runway. He made several calls to the accident airplane over the CTAF with no response. The accident pilot made no indications of an airplane anomaly during the communications between the two pilots.

A witness on the ground stated that the accident airplane ballooned during its first landing attempt then performed a go-around. She stated that the wind gusts pushed the airplane around. She further stated that during its second landing attempt, the airplane banked left and thought it was going to hit the ground. She then heard the engine rev and observed the airplane climb straight up and made a hard "left curve" before going straight down.

## **D. DETAILS OF THE INVESTIGATION**

### **1.0 Accident Site**

The accident site was located about 350 ft east of runway at Spicewood Airport (88R), Spicewood, Texas. The airplane was located about 185 ft into a densely wooded area. There were numerous trees surrounding the main wreckage that were damaged from the postimpact fire that ensued.



### **2.0 Aircraft Information**

The airplane was an experimental, Lancair Legacy FG and was issued a special airworthiness certificate on September 15, 2005. The engine was a Lycoming YIO-390-EXP s/n L-136-80E and was equipped with a field installed turbocharger. The aircraft's maintenance records were not recovered.

### 3.0 Airframe Examination



Ground scars and wingtip fragments were consistent with the airplane impacting terrain inverted in about a 050° nose down attitude on an approximate 125° magnetic heading. The airplane came to rest in an upright position on about a 210° magnetic heading about 20 ft from its initial point of impact. The airplane was mostly consumed by the postimpact fire that ensued.

The left and right ailerons were partially separated from the wings and exhibited thermal damage. The ailerons push-pull control tubes were thermally separated in various areas and their attachment hardware remained intact. The left and right flaps were destroyed. The flap actuator exposed about 5-1/4 inches of actuator, indicative of a full (40°) flap setting. The horizontal stabilizer, elevator, and vertical stabilizer were destroyed by fire. The elevator's push-pull control tube remained attached to its attach points and was thermally separated about mid-span. The elevator trim system was destroyed. The rudder exhibited thermal damage and was partially separated from its mounts via impact and thermal separations. The right rudder control cable was intact and remained attached to its rudder pedal assembly attach point and thermally separated from its empennage attach point. The left rudder cable was intact, and impact separated from its rudder pedal assembly and empennage attach points. Both pilot and copilot control sticks remained attached to their respective attach points. The supporting structure of the rudder pedal assembly and flight control sticks were thermally destroyed. All primary flight control continuity was established except where impact and thermal separations exist.

The fuselage was destroyed by the postimpact fire that ensued. The pilot and copilot seats were destroyed. Two 4-point restraints were observed latched; however, their restraint webbings were thermally destroyed. The instrument panel was mostly consumed by fire. The mixture, throttle and propeller controls were noted in the full forward position, indicative of the propeller set to fine pitch/high rpm, throttle open, and mixture full rich. The engine control cables remained attached to their respective engine attach points. The left and right main landing gears remained attached to

their respective attach points. The nose landing gear was impact separated from the fuselage.

The airframe fuel lines were thermally destroyed. The right wing's fuel cap remained attached to its receptacle. The left wing's fuel cap was separated from its receptacle and partially consumed by fire. The gascolator exhibited thermal damage and its filter was clear of obstruction.

The ELT was thermally destroyed and there was no record of activation from the impact.

#### **4.0 Engine/Propeller Examination**



The engine was inverted and remained attached to the engine mount. The engine and engine mount exhibited impact and thermal damages. The aft portion of the propeller hub remained attached to the crankshaft flange. Removal of the four upper sparkplugs revealed their electrodes were intact and exhibited normal wear and coloration when compared to the Champion Check-A-Plug card. No anomalies were noted to the interior of the cylinders during visual examination via illuminated borescope. Compression and suction were obtained from all four cylinders during hand rotation of the crankshaft flange. Crankshaft and camshaft continuity to the rear gears were established with no anomalies noted. Residual oil was observed within the engine, and the oil pump suction screen was clear of debris.

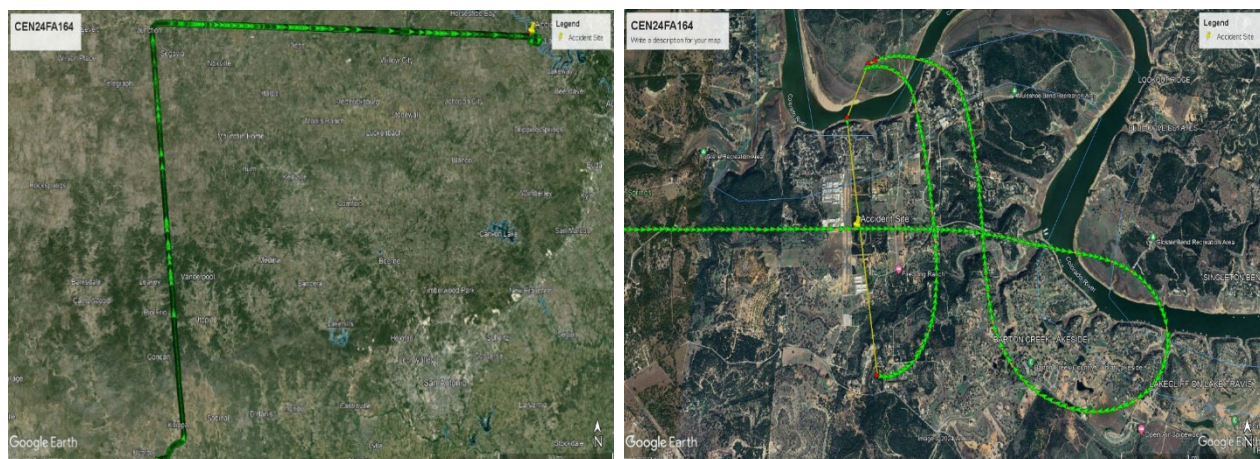
The engine driven fuel pump was thermally destroyed. The fuel servo remained attached to the engine and its control cables remained attached to their respective attach points. The fuel servo's fuel inlet screen was clear of debris. The flow divider exhibited thermal damage, and its internal diaphragm was destroyed; its internal valve moved freely when facilitated by hand. The two E-mag electronic ignitions remained attached to the engine and exhibited thermal damage. Impact damage was noted to exhaust system. Thermal damage was noted to the turbo

charger and torsional deformation was noted to the compressor wheel and its housing exhibited rotational abrasions. The propeller governor remained attached to the engine with thermal damage noted. The propeller governor's control cable remained attached, and its control arm was thermally separated from the governor. The induction air filter was destroyed.

The Hartzell aluminum two-bladed variable pitch propeller was impact separated from the engine at its two-piece hub and embedded in the soil at the airplane's initial point of impact, about 20ft from the main wreckage. The propeller blades were labeled "A & B" for descriptive purposes only. Blade "A" exhibited leading-edge damage, chord-wise abrasions, and longitudinal twisting. Blade "B" exhibited leading-edge damage, chord-wise abrasions, and forward deformation about 12 inches from the blade's tip. The propeller spinner remained attached to the propeller and exhibited aft and torsional deformation.

## 5.0 ADS-B Data

ADS-B data from the FAA revealed that the accident flight was the second flight of the day. The accident flight originated from Garner Field Airport (UVA), Uvalde, Texas. The airplane departed from UVA about 1721 CDT and entered the traffic pattern for the Spicewood Airport (88R), Spicewood, Texas about 1820 CDT. The last data point was at 18:25:03 and the airplane was about 550 ft above ground level on a left base for runway 17. The ADS-B data did not capture the second landing attempt and subsequent go-around.



Submitted by:

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