



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Central Region

October 19, 2021

ON SCENE OBSERVATIONS

CEN22FA016

This document contains 14 embedded photos.

A. ACCIDENT

Location: Stroud, OK
Date: October 18, 2021
Aircraft: AutoGyro Cavalon, Registration N419LB
NTSB IIC: Samantha Link

B. EXAMINATION PARTICIPANTS:

Alex Lemishko
Aviation Accident Investigator
National Transportation Safety Board
Denver, CO 80239

Tom LaNou
Aviation Safety Investigator
Federal Aviation Administration
Oklahoma City, OK 73108

C. SUMMARY

An on scene examination of the airframe and engine was conducted on October 19, 2021. No anomalies were noted during the examination.

D. DETAILS OF THE INVESTIGATION

1.0 Accident Site Overview

The first identified point of impact was a barbed wire fence. Followed by striations in the dirt from the rotor blades about 100 feet later. The gyroplane came to rest about 25 feet beyond that; it was upright and parallel to the fence line.

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1.1 Accident Site Photos



Figure 1: The Takeoff Field (View from the barbed wire fence looking toward the beginning of the field)



Figure 2: Striations in the Dirt



Figure 3: Left side of Gyroplane



Figure 4: Front of Gyroplane



Figure 5: Aft side of Gyroplane



Figure 6: Vertical Stabilizer

2.0 Airframe Examination

- The cabin area remained intact.
 - The front windscreen exhibited a large hole.
 - The seatbelts remained secured to the airframe; they were not clasped.
- Flight control continuity was established from the cockpit controls to their respective flight control surfaces.
 - The controls operated normally when manipulated by hand.
- The rotor head was bent aft about 45 degrees.
 - Both rotor blades remained attached at the hub.
 - One blade was bent down at the root.
 - The second blade was fracture separated about midspan.
- Striations consistent with barbed wire fencing were noted on both the left and right landing gear struts.
 - A string of barbed wire fencing was observed wedged where the landing gear struts connect to the fuselage.
- The outside skin of the right vertical stabilizer was fractured vertically.
- Automotive fuel was observed within the fuel tank.

2.1 Airframe Photos



Figure 7: Cockpit Controls



Figure 8: Left Landing Gear Strut



Figure 9: Right Landing Gear Strut



Figure 10: Fragment of Barbed Wire Fencing



Figure 11: Rotor Head Assembly

3.0 Engine Examination

- The three propeller blades remained attached at the propeller hub.
 - One blade was fractured at the root.
 - The second and third blades were fractured about midspan.
 - The propeller blades fragments were scattered throughout the debris field.
- Engine controls remained intact from the cockpit to the engine controls. They operated normally when manipulated by hand.
- The avionics master was turned on and the gauge indicated fuel was present in the fuel tank.

3.1 Engine Photos



Figure 12: Propeller Assembly

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Figure 13: Propeller Blade Fragments



Figure 14: Engine Overview and Propeller Assembly

END.

Submitted by: Samantha Link