

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



CEN23FA359

WRECKAGE

October 4, 2023

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A. ACCIDENT

Location: Virdun, IL
Date: August 12, 2023
Time: 0848 CDT
1348 UTC
Airplane: Vans RV-14

B. WRECKAGE

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C. SUMMARY

D. DETAILS OF THE EXAMINATION

1.0 Accident Site

The airplane collided with trees and terrain about 0.8 miles southwest of the center of Virden.

The first impact signatures were broken tree limbs about 20 ft above the ground. The main impact point was located just beneath the trees. Evidence at the scene was consist with an impact angle around 45° nose low. The airplane remained relatively intact with both wings, the engine, fuselage, and empennage accounted for at the accident site. It was in an upright orientation.

Fuel blighting was observed in the surrounding vegetation.

2.0 Airframe Examination

2.1 Fuselage

The fuselage was fractured and disrupted in multiple locations. The was accordion-style crushing in the aft and up direction. The cockpit panel was impact damage and distorted.

2.2 Empennage

The empennage remained partially attached to the fuselage and was twisted counterclockwise about 90 degrees. The elevators and rudder remained attached to their respective mounts.

The elevator control continuity was established from the control sticks to the forward elevator pushrod. Both the forward and mid elevator pushrods were fractured at the idler arm connection. The mid elevator pushrod was fractured at the elevator bellcrank. The aft elevator pushrod remained attached from the bellcrank to the elevators. The Garmin GSA 28 autopilot servo remained attached to the elevator bellcrank.

Rudder control continuity was confirmed from the rudder pedals to the rudder flight control.

2.3 Wings_

Both wings displayed accordion crushing along their entire lengths. Both ailerons were impact separated and located near their respective wings.

Both control sticks remained attached via the stick link pushrod. The left aileron control was fractured at the rod end of the control stick attachment point. The control was continuous through the torque tube assemblies to the aileron bellcrank. The bellcrank to aileron pushrod was fractured at the aileron bellcrank end and remained attached to the left aileron outboard bracket. The right aileron control was fractured at the forward torque tube assembly rod end. The controls were continuous from the forward torque tube assembly to the right aileron outboard bracket. The Garmin GSA 28 autopilot servo remained attached to the right aileron bellcrank.

2.4 Landing Gear

The tricycle landing gear is fixed and remained attached to the airplane.

2.5 Cockpit

The cockpit was fragmented and distorted. It was equipped with dual Garmin GDU 460 and a Garmin G5. One SD card remained inserted in the right side of the

460. An SD card was located near the left side 460. Both cards were recovered and shipped to the NTSB Laboratory for data extraction.

2.6 Fuel/Fuel System

Both fuel tanks were breached, and no fuel was recovered at the accident site. Fuel blighting was noted in the surrounding vegetation, primarily to the northwest of the accident site.

3.0 Engine Examination

On October 4, 2023, an engine examination was conducted at AMF facility in Springfield, TN. No preimpact anomalies were detected with the engine which would have precluded normal operation.

4.0 Propeller Examination

The propeller was fractured at the propeller flange. Both blades remained attached to propeller hub. There was light chordwise scratches and polishing on both propeller blades. A branch was located at the accident site with a 45° cut and a black paint transfer.

Submitted by:

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