



The National Transportation Safety Board

Office of Aviation Safety
Central Region
Memorandum for the Record
Accident Site and Wreckage
Examinations
CEN20FA010
Aberdeen South Dakota
October 9 2019

General Accident Scene

The airplane's wreckage was in a farmer's field, about 7 miles north of ABR, grid coordinates: 45.561709 N - 098.460366 W. On scene observations showed evidence that the airplane initially impacted a 60-foot-tall tree with its left wing. Debris was scattered beyond the initial impact of the tree on a heading of 148 degrees. The fuselage skidded along the ground for about 500 feet, coming to rest on the edge of standing water. The engine was separated from the fuselage and submerged in the standing water. Note: The wreckage was not found until 12 days after the accident, and engine was submerged in water.



Photo 1 Aerial View of Accident Site

Airframe: Both wings remained attached to the fuselage. The fuselage and empennage were severely crushed and fragmented. The empennage was separated about flight station (FS) 90 and was partially attached by control cables. The vertical fin and rudder separated during the impact sequence and were found about 15 feet in front of the main wreckage.

Date & Time: Wed, Oct 23, 2019, 09:46:13 CDT
Position: +045.561709° / -098.460356°
Altitude: 1329ft
Datum: WGS-84
Azimuth/Bearing: 275° N85W 4889mils (True)
Elevation Angle: -28.1°
Horizon Angle: -00.2°
Zoom: 1X



Photo 2 Airplane Wreckage at Accident Site

Fuel System: Both fuel tanks were compromised and impact damaged. Unknown fuel quantity and quality at takeoff. The airframe fuel system could not be examined due to impact damage. The carburetor and air box were detached from the engine and could not be examined for functionality due to impact damage. The carburetor heat control was found in the off position.

Flight Controls: Flight control cable continuity was established from all control surface to the cockpit controls. All flight controls remained attached to the respecting surface. The flap handle (bar) was observed in the third notch (30 degrees of flaps). Both fuel tanks were compromised and impact damaged.

Engine/Propeller: The firewall and engine separated and was found about 20 feet in front of the main wreckage submerged in standing water. The propeller assembly was found fractured at the engine crank flange. Both propeller blades were twisted, polished, and exhibited “S” bending. Engine drive continuity and thumb compression were established. No mechanical anomalies were found. The damage to the propeller blades was consistent with rotation at the time of impact.

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