

# National Transportation Safety Board

Office of Aviation Safety

Denver, CO 80239



CEN23FA285

## WRECKAGE EXAMINATION SUMMARY

## **ACCIDENT**

Location: Burlington, CO  
Date: July 6, 2023  
Time: 1330 mountain daylight time  
Airplane: Piper PA-60-601P, Registration No. N100PB

## **WRECKAGE EXAMINATION GROUP**

|                        |                                                                                    |
|------------------------|------------------------------------------------------------------------------------|
| Investigator-In-Charge | Zane Brown<br>National Transportation Safety Board<br>Denver, Colorado             |
| Investigator           | Brian Rutt<br>National Transportation Safety Board<br>Denver, Colorado             |
| Investigator           | Jennifer Rodi<br>National Transportation Safety Board<br>Denver, Colorado          |
| Party Member           | Les Doud<br>Hartzell<br>Piqua, Ohio                                                |
| Party Member           | Troy Helgenson<br>Lycoming<br>Williamsport, Pennsylvania                           |
| Group Member           | Felix Mendoza<br>Federal Aviation Administration - Denver FSDO<br>Denver, Colorado |

## **ACCIDENT SYNOPSIS**

On July 6, 2023 about 1330 mountain daylight time, a Piper PA-60-601P airplane, N100PB, was destroyed when it was involved in an accident near Burlington, Colorado. The pilot was fatally injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

The airplane impacted terrain during some time after departing from Kit Carson County Airport (ITR) in Burlington, Colorado.

## **AIRPLANE DESCRIPTION**

The airplane was a 1979 Piper PA-60-601P (Aerostar), serial number (s/n) 61P-0584-7963257. Two Lycoming IO-540-S1A5 reciprocating engines were installed. The engines provided thrust through constant-speed, full-feathering, three-blade, Hartzell propellers. The mid-wing airplane was of conventional aluminum construction with a retractable tricycle landing gear and wing flaps. The airplane had a pressurized cabin configured to seat six people. The airplane was equipped for operations in instrument meteorological conditions (IMC) and icing conditions.

## **DETAILS OF THE EXAMINATION**

### **1.0 Accident Site Description**

The airplane impacted a harvested cornfield about 11.8nm southwest of the center of Kit Carson County Airport (ITR). A 350ft long debris path, oriented on a 345° magnetic heading, preceded the location of the main wreckage. The airplane impacted the ground in a near wings level nose down attitude. The nose landing gear wheel and fork were found separated from the strut about 325 ft from the initial point of impact. The wing tips were found separated from both wings along the wreckage debris path on their respective sides.

### **1.1 Flight Controls**

The fuselage was fractured from the wing and the wing spars remained attached as one assembly. Flight control continuity could not be verified because the control push/pull tubes for the ailerons, elevators, and rudder exhibited extensive impact and fire damage. Both ailerons and flaps exhibited impact and fire damage. The hydraulic flap actuators were found retracted, consistent with about 0° of flap extension. The flap control handle was not located during the investigation. Both elevators remained attached to the horizontal stabilizer and exhibited impact damage. The elevator trim tabs measured about 10° tab down. The rudder was found about 125ft from the empennage, its trim tab measuring about 4° tab left. The vertical stabilizer was fractured from the empennage and crushed.

## **1.2 Landing Gear**

The landing gear selector handle was found to be in the up and locked position, and the landing gear was found retracted at the accident site.

## **1.3 Instrument Panel**

The instrument panel sustained significant damage during the accident sequence and post-impact fire. The altimeter indicated about 4200 feet and was set to 30.13 inHg in the Kollsman window. The attitude indicator was extensively damaged and could not be tested. The internal gyro of the attitude indicator was found separated from its instrument case and exhibited evidence of rotational scoring. The airspeed indicator, backup course deviation indicator were not located. The Aspen PFD was destroyed by impact and fire. The engine tachometer, manifold pressure gauge, combo oil pressure, temperature, and fuel pressure gauges, and the exhaust gas temperature gauge were also destroyed. The engine cylinder temperature gauge was found impact damaged with a needle slap mark at 100°C on the right engine, with no indications on the left engine. The pressurization controller was found set to about 12,500' (8500' cabin pressure). The Gyro pressure gauge was found damaged, indicating 4.4 inHg with the right source inoperative. The right magneto switch was found attached to its mounting location on the instrument panel and in the "Off" position. The left magneto switch was found intact but separated from its mounting location and was also in the "Off" position. The airplane's Garmin 430 and 530 panel-mounted GPS navigation/communication devices were recovered but no data was able to be extracted.

## **1.4 Engines**

The right engine remained attached to its engine mounts and nacelles, and the left engine was located among the debris field attached to its mount that had fractured from its nacelle. The throttle quadrant was destroyed by impact and fire damage.

## **1.5 Propellers**

The right propeller was separated from the engine propeller shaft flange. One blade was separated from the hub, and its leading edge was lodged into the right engine's intercooler core. The other two blades remained in the hub but could be rotated in their housing by hand.

The left propeller was separated from the engine propeller shaft flange. One propeller blade was separated from the hub, and the remaining two blades appeared to be in the normal range of operation. Two propeller blades were bent in the aft direction, and the remaining blade appeared to be slightly bent aft.

## 1.6 Fuel System

Two fuel valves were located amongst the wreckage site, upon examination, one fuel valve was in the "Closed" position. The second fuel valve was in the "Open" position.

## 2.1 Fueling

The airplane's total fuel capacity of 173.5 gallons (165.5 gallons usable) was distributed between two wing fuel tanks and a fuselage tank. According to fueling documentation, before departing on the flight, the pilot serviced the airplane with 113.4 gallons of 100 low-lead aviation fuel from the self-serve pumps at Kit Carson County Airport (ITR), Burlington, Colorado.



**Figure 1** - Initial Impact Point



**Figure 2** - Wings and Main Landing Gear



**Figure 3** - Right Wing Section



**Figure 4** - Empennage



**Figure 5** - Left Engine



**Figure 6** - Right Engine



**Figure 7** - Left Propeller

