



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

February 26, 2018

ACCIDENT SITE EXAMINATION

WPR18FA095

This document contains 2 embedded photos

A. ACCIDENT

Location: Monticello, Utah
Date: February 26, 2018
Aircraft: Piper 32R-300, C-GYGY Serial 32R-7680182
NTSB IIC: Michael Huhn

B. EXAMINATION PARTICIPANTS:

Albert Nixon
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C. SUMMARY

Examination of the accident site was conducted on February 26, 2018, on a snow covered, wheat field, in rolling terrain, about 18 miles southeast of Monticello Utah. All major structural components of the airplane were located at the accident site. No evidence of pre-impact mechanical failure was noted during the onsite examination of the airframe and engine. The wreckage was recovered to a secure location for further examination.

D. DETAILS OF THE INVESTIGATION

1.0 Airframe Examination

Examination of the accident site by the investigators from the National Transportation Safety Board (NTSB), Federal Aviation Administration (FAA), and Piper Aircraft Inc., revealed that the airplane impacted terrain at an elevation of about 6,850 ft mean sea level. Both wings were separated from the fuselage, and the wreckage came to rest with the fuselage on its left side with the empennage inverted.

The approximate geographic location of the impact site was measured to be as follows:

37° 46' 53.87" N

109° 10' 24.59" W

The debris path was about 483 ft long on a heading of 085° magnetic, and began with an initial impact point at a disturbed portion of dirt that measured about 2 ft diameter by 6 inches in depth. Just beyond the initial point of impact there was another area of disturbed area of dirt that was observed to be about 4 ft in length, 2 ft wide, and 6 inches in depth, that contained several small fragments of the airplane's fiberglass wingtip debris. Flight control continuity was established from the cockpit controls to each respective flight control surface. However, multiple impact separations and cuts made by the recovery personnel were observed in the flight control cables. There was no evidence of a pre or post impact fire. No personal electronic devices were recovered from the wreckage.



Figure 1: View of Airplane Debris Trail looking Towards The Initial Impact Point.



Figure 2: View of Debris Trail with Main Fuselage in Background.

The left wing was separated from the fuselage and sections of the wing were located throughout the debris trail. The biggest portion of the wing was where the left main landing gear wheel well is located. The landing gear was observed extended but the flexible brake line was wrapped completely around the oleo strut, consistent with the wheel and lower strut assembly having been rotated about 360° in the upper trunnion assembly. The main gear truss link was fractured.

The left flap and aileron were separated but located in the debris field. The aileron cables remained attached to the bellcrank although one arm of the bellcrank had separated. No fuel was observed in any part of the wing.

The right wing separated from the fuselage at the wing root but was located in the debris field. The flap remained attached to the wing. Impact damage was observed on the bottom side of the wing from the leading edge to trailing edge. The right wing inboard leading-edge assembly was separated from the wing. The outboard section of the wing was crushed about 45° angle beginning at the outboard end of the inboard fuel tank. The aileron, outboard fuel tank, and wing tip were separated. The aileron cables remained attached to the bellcrank. The wing skin above the inboard fuel tank exhibited two puncture holes. The right main landing gear remained attached as was observed in the retracted position in the wheel well.

The horizontal stabilator remained attached to the hinges on the aft fuselage closeout plate

assembly. The balance weight and tube remained attached to the stabilator and the flight control cables remained attached to the stabilator tube. The left side of the stabilator exhibited 45° diagonal wrinkling to the upper skin. The vertical stabilizer and rudder, remained attached to the fuselage only at the fin root fitting. The vertical stabilizer's leading edge and left side exhibited crushing damage, and deformation. The flight control cables remained attached to the rudder horn. There were approximately 10 threads exposed on the top of the stabilator trim shaft which would correspond to a partial "nose up" trim setting.

The upper half of the cabin fuselage was separated from impact damage and cuts made by the rescue personnel. The firewall was separated from the fuselage. The nose landing gear assembly was separated from the fuselage. The lower fuselage structure forward of the main wing spar was separated from the aft fuselage. The passenger cabin was crushed and twisted from impact. Most of the flight instruments were not located. The fuel selector valve was intact, and the detents were noticeable when selecting different positions. It was functionally tested with light air pressure and observed to be in the left fuel tank position.

The control columns were separated from the instrument panel and tee bar assembly. The stabilator control cables remained attached to the tee bar. The aileron cables remained attached to the drive chain. The drive chain was separated from the control column sprockets. The rudder cables remained attached to the rudder pedal assembly control arms.

The left front seat (Seat no. 1) was separated from the main fuselage. The lap belt remained attached to the fuselage structure and the buckle was connected. The shoulder harness was not attached. The front right seat (Seat no. 2) was attached to the seat rails. The lap belt was buckled, but the webbing was cut. The shoulder harness was not attached to the lap belt but was attached to the cabin top. Seat no. 3 was not observed at the site. Seats no. 4, no. 5, and no. 6 were separated from the fuselage.

The engine tachometer time indicated 3,307.75 hours. The alternate air cockpit control was in the OFF position, and the cockpit throttle lever was about in the idle position, the mixture control lever was set about a mid-point setting, and the propeller control lever was full forward. The landing gear selector toggle switch was observed in the down position; however, the knob portion had separated. The manual flap handle was observed in an intermediate position. The flap torque tube was separated into two pieces and separated from the fuselage. Therefore, the actual flap position at impact was unable to be determined.

3.0 Engine Examination

Examination of the engine revealed that it had separated from all its engine mounts and was located well beyond the main wreckage, at the end of the debris trail. The propeller governor had been separated and was not located during the on-site examination. The engine magnetos, oil filter, fuel pump, exhaust, and oil dip stick had been separated from the engine. The front left side of engine sustained impact damage. The top spark plugs remained installed with all but one having their top portions broken off. All cylinders remained attached to the crankcase. The exhaust system for the right-hand cylinders sustained damage. The fuel system strainer screen and strainer bowl were both free of debris.

The propeller flange remained intact on the crankshaft and retained a portion of the propeller hub. The propeller hub was fractured into numerous pieces which resulted in the release of the three propeller blades, and the actuating piston. The 3 propeller blades exhibited twisting, bending, and gouging. One blade tip was curled aft and a small section separated. Two sections of the propeller spinner were located.

The examination of the engine did not reveal any pre-impact anomalies that would have prevented normal operation.

Submitted by: Albert Nixon