



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

October 21, 2019

ACCIDENT SITE AND WRECKAGE EXAMINATION SUMMARY

WPR20FA008

This document contains 6 embedded photos.

A. ACCIDENT

Location: Angel Fire, New Mexico
Date: October 20, 2019
Aircraft: N7742P; Piper PA-24
NTSB Investigator-in-Charge: Andrew Swick

On October 20, 2019, about 0845 mountain daylight time, a Piper PA-24 airplane, N7742P, during takeoff, impacted trees and building before impacting the ground about a 1/2 mile south of the Angel Fire Airport (AXX), Angel Fire, New Mexico. The commercial pilot and passenger were fatally injured. The airplane sustained substantial damage, and a postaccident fire ensued. The airplane was registered to and operated by the pilot under the provisions of 14 *Code of Federal Regulations* Part 91 as a cross-country flight. Visual meteorological conditions prevailed, and no flight plan was filed for the flight that was destined for Great Bend Municipal Airport (GBD), Great Bend, Kansas.

According to friends of the pilot who stated they had helped with the refueling and preflight of the accident airplane that morning, said this was the pilots first time flying into this airport. The pilot stated to his friends that he was going to depart to the south and head back towards the airport because of the winds and to gain altitude. The pilot started the engine and let it warm up for about 10-15 minutes. The airplane taxied to the departure end of runway 17 where it performed its run-up and magnetos check. The pilot's friends watched as the airplane then started its takeoff roll and departed a little past halfway down the runway. Soon after the airplane departed the runway, they saw the landing gear retract and soon lost sight of the airplane behind the parallel taxiway, which rises in elevation above the runway.

An eyewitness was driving north-bound when she saw the airplane flying from the airport on the east side of the highway. The airplane was very low and that it appeared to be struggling to remain in flight. The airplane turned to fly over the road and towards the eyewitness, who subsequently drove her vehicle into the ditch alongside the highway. As the airplane was descending, and it appeared to the eyewitness that the airplane was preparing to land on the road. The eyewitness noticed a section of power lines that cross the road in front of her location and hoped that the airplane was going avoid hitting them. As the airplane approached the power lines, the airplane pitched up and turned to the west, impacting trees, a building and terrain.

A security camera with a southward view, captured the airplane flying overhead about 50 ft above ground level, and flying over the adjacent road. The airplane was flying wings level and the landing gear was in the down position. As the airplane approached the light poles and power lines in the background, the airplane banks right and travels behind trees and buildings out of view. Another security camera located near the accident site captured the airplane impacting trees and a building, before cartwheeling to the ground in a nose-down attitude. The airplane came to rest in an inverted position and a post-accident fire ensued.



Figure 1-Accident site and impacted building, northwest view.

Examination of the accident site revealed that the first identified point of contact were two trees located on the north side of a building. (See figure 2) The right wing was found on the building's roof. The right main gear was found on the north side of the building and roof damage was found near the roof peak. The first ground impact was an area of disturbed ground surrounded by red lens fragments. The propeller separated from the engine and propeller blade strikes were found in the ground. The left outboard wing section separated. The main wreckage was found inverted and was the furthest in the debris field. The debris field was about 250 ft long and on a directional heading of about 190 degrees magnetic. Flight control cable continuity was attained, and all major structural components were found. Postaccident fire burned about 1/4 acre of brush covered terrain. The wreckage was recovered to a secure facility for further examination.



Figure 2-Accident site tree strikes, southwest view.

AXX was situated at an elevation of 8,379 ft above mean sea level. It was equipped with one runway, designated 17/35, which measured 8,900 ft by 100 ft. AXX was not equipped with an air traffic control tower. Runway 17, the departing runway, is an upslope runway.

The 0845 automated weather observation at AXX, included winds from 270° at 9 knots gusting to 21 knots, visibility 10 miles, clear skies, and a density altitude of about 9,225 ft mean sea level.

B. PARTICIPANTS

Andrew Swick-NTSB IIC
Jon Hirsch-Piper Aircraft

C. SUMMARY

Examination of the accident site was conducted on October 21, 2019. All major structural components of the airplane were located at the accident site.

Prior to the examination of the accident site, the impacted building was temporarily repaired. The cabin area from the firewall to the aft baggage compartment was mostly consumed by fire. The center section of the main wing spar including a portion of the lower right fuselage had been pulled on to the left wing by first responders.



Figure 3-Accident site, main wreckage.

About a 3-4 ft section of the stabilator, rudder, aileron, and flap control cables had been cut away by first responders and were also placed on top of the left wing. The stabilator and rudder cables remained attached to their respective attach points in the cockpit and continuity was confirmed to the attach points at the control surfaces in the empennage. The aileron chain in the cockpit was intact and attached to the cables at each end. The cables were continuous from the cockpit to the wing roots except for the cuts made by the first responders. The flap control handle was impact and fire damaged and separated from the fuselage. The flap handle position was not determined. The flap control cables were continuous from the selector handle to the flap bellcranks in each wing except for cuts made by first responders.



Figure 4-Accident site, main wreckage and right wing.

The two forward seats and the rear bench seat frame had been removed from the wreckage by first responders. Most of the upholstery on the seats had been consumed by fire leaving the seat base and back frames as well as the support springs. Two seat belt buckles were located in the wreckage. One was buckled and one was not. The installed location for the buckles could not be determined. The seat belt webbing had been consumed by fire. The instrument panel was fire impact damaged. No meaningful data could be obtained from the avionics or flight instruments due to impact and fire damage.

The fuel selector handle was impact damaged and fractured. The center portion of the handle remained attached to the fuel selector valve and was found in the left tank position. The fuel selector valve was fire damaged and separated from the fuselage. The fuel strainer bowl was fire damaged and separated from the fuselage. The bowl was disassembled in order to examine the strainer screen. No fuel was observed in the strainer bowl and soot was observed on portions of the fuel strainer screen.



Figure 5-Accident site, fuel selector valve.

The cockpit engine and propeller controls were impact and fire damaged. The engine and propeller control cables were traced from the instrument panel to the engine compartment. The throttle cable remained attached to the throttle arm on the carburetor. The mixture control cable was not attached to the mixture control arm on the carburetor and no hardware was observed on the mixture control arm. The propeller cable remained attached to the propeller governor. The alternate air control cable was continuous to the alternate air door lever arm in the engine compartment. The induction system including the air filter and alternate air valve box were consumed by fire.



Figure 6-Accident site, forward fuselage and engine assembly.

The wreckage was relocated to a secured facility.

Submitted by: Andrew Swick