



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

February 25, 2021

WRECKAGE EXAMINATION SUMMARY

WPR21LA111

This document contains 9 embedded photos.

A. ACCIDENT

Location:	Tehachapi, California
Date:	February 13, 2021
Aircraft:	Piper PA46R-350T (Matrix), N40TS
NTSB Investigator-in-Charge:	Andrew Swick
FAA Inspector-in-Charge:	Jerry Dees-Van Nuys FSDO

On February 13, 2021, about 1627 pacific standard time, a Piper PA46R-350T airplane, N40TS, was destroyed when it was involved in an accident near Tehachapi, California. The pilot was fatally injured. The airplane was operated by the pilot as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

Flight track data revealed the airplane departed from Camarillo Airport (CMA), Camarillo, California earlier that afternoon and flew an almost direct flight to the area of the accident site. The flight track data was consistent with the autopilot being engaged. At approximately 2-1/2 miles south of the accident site the track made a slight right turn, flew strait northeast about 1 mile before turning left about 20 degrees in a north northwest direction towards the accident site. Near the end of the flight track data, a tight left turn was initiated follow by a steep spiral turn. The last flight track data was near the accident site.

Concerned family members contacted the Federal Aviation Administration the following day and an Alert Notice (ALNOT) was issued for the missing airplane. The airplane was found on the morning of February 15th, in rugged steep terrain.

Weather in the area of the accident site was reported as moderate visual flight rules (mvfr) conditions prevailing due to low ceilings and visibility in light rain and mist prior to the accident with peak winds reported to 40 knots. A period of unknown precipitation also occurred prior to the period. The National Weather Service had advisories current for turbulence over the region and included G-AIRMET Tango and Center Weather Advisory (CSA) which bordered the area for severe turbulence below 15,000 ft.

A postaccident examination of the accident site revealed that the airplane impacted a north facing slop with a slopping angle of about 45°. The airplane was found in several sections and the larger sections were caught by larger trees, preventing them from sliding down slop. Postcrash fire was concentrated to the cabin section and inboard wings. The wing spar was in several sections and the engine was found surrounded

B. SUMMARY

Examination of the wreckage was conducted on February 25, 2021, at the facilities of Air Transport, in Phoenix, Arizona. The National Transportation Safety Board investigator-in-charge and Piper Aircraft Inc. were present for the examination. The postaccident examination of the airframe and engines revealed no evidence of mechanical malfunction or failures that would have precluded normal operation.

C. DETAILS OF THE EXAMINATION

1.0 Main Wreckage

The wreckage was displayed on the ground and all flight control surfaces and airplane components were present with exception of the rudder. The rudder was identified in onsite photographs located near the vertical stabilizer. All of the recovered wreckage was found to have extensive crush damage and some had postaccident fire damage. The engine and its accessories had impact damage and remained partially attached to its mount. The engine mount was crushed and remained partially attached to the forward fuselage. The forward baggage door separated and was found in the debris field. The cabin area was destroyed, and no evidence of switch positions were available. The instruments were damaged, and non-volatile memory of the flight was no available.



Figure 1-Main wreckage displayed on the floor.



Figure 2-Main wreckage displayed on the floor.

The attitude indicator instrument was disassembled, and the rotor and case were removed. The vacuum-powered rotor and case revealed rotational scoring damage.



Figure 3-Attitude indicator case, interior rotational scoring.

The aileron cables were found with multiple separations throughout the wreckage. The elevator control cables were found with multiple separations and the elevator torque tube had impact and thermal damage. The rudder pedal area was destroyed. The rudder cables had multiple separations throughout the fuselage and empennage areas.

The wings had crush and thermal damage and were found in several sections. The main landing gear remained in the wings in the retracted position. Aileron cables were identified and were found in several sections.



Figure 4-Left wing and cabin portion.



Figure 5-Right wing and cabin portion.

The horizontal stabilizer along with the elevator and trim tab had impact and thermal damage. The horizontal stabilizer remained attached to a small portion of the tailcone structure. The elevator trim barrel revealed that 15 threads of the trim screw was extended. According to airplane manufacturer this would relate to about a full-nose-up trim position. The vertical stabilizer remained attached to a portion of the tailcone structure and had impact and thermal damage. Both rudder control stops were separated. The rudder was not available at the examination but was identified in a photo that was taken of the accident site near the vertical stabilizer's location.



Figure 6-Horizontal stab and elevator (vertical stabilizer in the background).

The fuel selector valve was found in the cabin area and had impact damage. It was determined that the fuel selector valve position was found in the left tank position.

The engine was removed from the main wreckage and displayed excessive impact damage. The crankshaft would not rotate during the examination. The turbochargers were removed and disassembled. The compressor blades revealed blade tip contact to the scroll housing and curling at the blade tips.



Figure 7-Engine and main wreckage.



Figure 8-Turbocharger compressor scrolls and blades.

The composite propeller blades separated from the hub and had impact damage.



Figure 9-Propeller blades.

Submitted by: Andrew Swick