



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

September 25, 2020

WRECKAGE EXAMINATION SUMMARY

WPR20FA031

This document contains 7 embedded photos.

A. ACCIDENT

Location: Descanso, California
Date: August 22, 2018
Aircraft: N1682G, American Champion-7KCAB
NTSB Investigator-in-Charge: Andrew Swick

On November 22, 2019, about 1834 Pacific standard time, a Grumman AA-5B Tiger airplane, N310PD, impacted terrain near Jackpot, Nevada. The commercial pilot and passenger were fatally injured and the airplane was destroyed. The airplane was registered to and operated by the pilot under the provisions of Title 14 Code of Federal Regulation Part 91. Visual meteorological conditions prevailed and a flight plan was not filed for the cross-country flight, which originated at 1834 and was destined for Rexburg, Idaho.

According to a witness, who was located at a residence adjacent to the airport, he observed the airplane lift off from the runway and begin an immediate turn to the left. In his experience watching airplanes depart from this airport, the airplane was at an unusually low altitude when it began the turn. The witness then looked away while the airplane was turning and immediately heard a loud explosion. He immediately looked back in the direction of the airport and observed a fire.

The airplane came to rest inverted in a level hay field about one quarter nautical mile east of the departure end of runway 15 on a heading of about 095° magnetic. All major components were found at the accident site. The initial impact point was marked by an 18 inch-long by 36 inch-wide ground scar at the beginning of the debris path, which was 276 ft long and oriented on a heading of 212° magnetic. The wreckage was fragmented and numerous components were distributed along the energy path, which terminated at the main wreckage and was consumed by postcrash fire.

The airplane was recovered to a secure location for further examination.

B. PARTICIPANTS

Stephen Stein-NTSB IIC (not present for the examination)
Andrew Swick-NTSB
Mark W. Platt-Lycoming Engines (Party Member)

C. SUMMARY

The follow-up examination of the wreckage was conducted on September 25, 2020, at the facilities of Air Transport in Phoenix, Arizona. The engine and airframe examination revealed no preimpact anomalies that would have precluded normal operation.

D. DETAILS OF THE INVESTIGATION

1.0 Airframe

The main wreckage had excessive impact and thermal damage. Sections were laid out and parts were identified. Flight control surfaces were previously labeled [onsite examination] with a sharpie marker. The spar had impact damage and was separated into several sections. The flight control cables were found in the main wreckage and were distorted and cut during the relocation of the wreckage. Cable turnbuckles and attachment ends remained intact and undamaged.



Figure 1-Main Wreckage

The ailerons separated from the wing. The control cable attachment ends separated from both ailerons.



Figure 2-Aileron

A jackscrew and attached torque tube assembly separated from the main wreckage and both had impact and thermal damage. The jackscrew appeared to be in the full retracted position.



Figure 3-Jackscrew and torque tube assembly.

The elevator trim assembly remained attached to the empennage. The aft side of the trim assembly jackscrew shaft threads were visible. The forward side of the jackscrew did not reveal any shaft threads.



Figure 4-Elevator trim assembly.

The mixture and throttle levers remained attached to a section of the control panel. The mixture was in the mixture cutoff position and the throttle lever was about an inch out and bent to one side.

The carburetor separated from the engine and was found with the main wreckage. The carburetor had impact and thermal damage. The throttle body and engine mounting flange separated. Mixture and throttle cables separated from their respective lever arms. The carburetor remained attached to the airbox.



Figure 5-Carburetor and airbox.

The propeller separated from the engine and was found with the main wreckage. The propeller spinner had impact damage and only the backplate assembly and a small section of bent spinner material remained. The blades had spanwise gouging, leading edge scuffing and decrease pitch twisting. About 2 inches of blade material was missing from each blade tip.



Figure 6-Propeller assembly.

The inline electric fuel pump had impact and thermal damage and remained attached to the firewall which separated from the main wreckage. Both the inlet and outlet lines separated from the pump.



Figure 7-Electric fuel pump.

2.0 Engine

The engine was examined and revealed no preimpact anomalies that would have precluded normal operation.. See the Lycoming Engines factual report for further information.

Submitted by: Andrew Swick