



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

August 23, 2018

ACCIDENT SITE EXAMINATION SUMMARY

WPR18FA237

This document contains 12 embedded photos.

A. ACCIDENT

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

On August 22, 2018, about 1615 Pacific daylight time, a Champion 7KCAB, N1682G, was involved in an accident about 8 miles northwest of Descanso, California. The certified flight instructor (CFI), and commercial pilot receiving instruction were fatally injured. The airplane operated by the CFI as a Title 14 *Code of Federal Regulations* Part 91 instructional flight.

Information provided by family members of both pilots revealed the purpose of the flight was for spin training as part of the commercial pilot receiving instruction's training to become a flight instructor. The CFI operated two Champion airplanes, providing spin training and tailwheel endorsements.

Review and analyzing of Federal Aviation Administration radar data showed a primary radar target depart SEE and proceed in a northeasterly heading, climbing to about 3,200ft above ground level (agl) across areas of rising terrain. The target continued in a northeasterly heading at a level altitude before radar contact was lost near the accident site. Throughout the last few minutes of the target track, altitudes varied between 2,000 to 2,400ft agl.

The wreckage was recovered by Air Transport on August 24, 2018 and transported to Air Transport in Phoenix, Arizona for further examination.



Figure 1-Google Earth View-Wreckage Diagram

The wreckage was recovered by Air Transport on August 24, 2018 and transported to Air Transport in Phoenix, Arizona for further examination.

B. PARTICIPANTS

Andrew Swick-NTSB IIC (onsite August 24, 2018)
 Scott Worthington-FAA-FSDO (onsite August 23, 2018)
 Jerry K. Mehlhaff Jr.-American Champion Aircraft (Party Member)
 Mark W. Platt-Lycoming Engines (Party Member)

C. SUMMARY

Examination of the accident site was conducted on August 24, 2018. All major structural components of the airplane were located at the accident site. Unofficial preliminary radar track data reveals a track consistent with accident airplane fly direct to the area of the accident site, perform a maneuver and dropped from radar. Fueling records state that he last refueled after 1710 on the August 20, 2018. A pilot that flew with the CFI on the morning of the 22nd, stated to

the IIC, that he checked the fuel himself, and that both tanks were full prior to departure of the accident airplane. The wreckage was recovered to a secure location for further examination.

D. DETAILS OF THE INVESTIGATION

1.0 Airplane Information

The accident airplane, an American Champion 7KCAB (serial number 137), was manufactured in 1968. It was registered with the Federal Aviation Administration on a standard airworthiness certificate for normal operations. The airplane was equipped with a Textron Lycoming IO-320-E2A engine rated for 150 horsepower at 2,700 rpm. The engine was equipped with a 2-blade propeller.

1.1 Documentation and Details

Maintenance logbooks not obtained during investigation.
SPAS data not supplied by FAA-IIC.

2.0 Accident Site Examination

Main Wreckage: N32° 57.471, W-116° 41.921' – Elevation: 2,584 feet

Accident site was about 8 miles southeast of Descanso, California

Accident site was about 18 miles southwest of Gillespie Field (SEE), El Cajon, California

Examination of the accident site was conducted on August 24, 2018 by the NTSB-IIC. The examination revealed that the airplane impacted remote mountainous terrain near the Three Sisters Falls hiking area.



Figure 2-Accident Site, East View

The airplane was substantially damaged by impact forces and was found adjacent to a heavily wooded ravine. The main wreckage was repositioned, and the cabin area structure was cut and opened by the medical examiners in an effort to recover the occupants on August 23, 2018. The main wreckage was contained within a debris field about 120ft in length and about 20ft wide on a directional heading of 112-degrees magnetic. The debris field was relatively level compared to the surrounding terrain that was increasing in elevation to the north. The first identified point of contact (FIPC) was an area of disturbed ground containing a small crater. A flat rubber seal was found near the FIPC and contained small fragments of green glass, consistent with the right wing tip navigational light. Small red wing access panels were also found near the FIPC.



Figure 3-Right Wing Tip Lens Fragment Found Near the FIPC

Further up from the FIPC was an area of disturbed ground and brush about 70ft in length and about 6ft wide. The area contained a larger crater, about 4ft in diameter and 6in deep about 30ft from the FIPC. More red and blue wing panels were found were found in this area. The aircraft cabin door had impact damage and was found near the ravine in the bushes adjacent to the large crater. Broken Plexiglas was found surrounding this area. A broken red lens fragment was found near bushes on the left of the debris field about 70ft from the FIPC. The main wreckage was found about 90ft from the FIPC. The left wing had impact damage and was intact. The left wing was removed from the main wreckage by the medical examiner to help gain access to the cabin area.

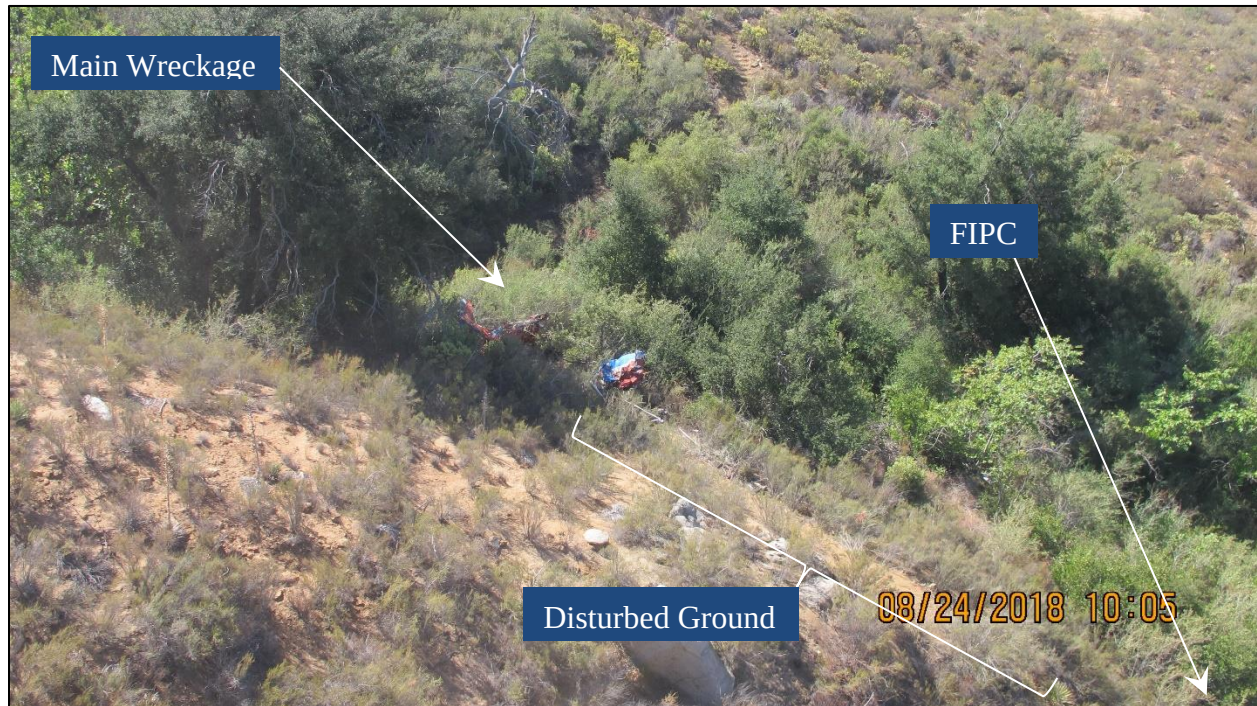


Figure 4-Accident Site, Overhead View

The right-wing had excessive impact damaged and remained attached to the main wreckage. A landing gear strut and wheel assembly separated from the main wreckage and found near the main wreckage. The other main gear strut was the furthest piece of wreckage and the wheel assembly separated and was not found. The main wreckage was on a directional heading of about 180 degrees magnetic.



Figure 5-Main Wreckage

The empennage remained intact and flight control continuity was established to the cockpit controls. The left rudder control cable exhibited overload signatures near the connection of the rudder pedal. The aileron and flap continuity could not be attained onsite. Both ailerons and flaps remained attached to the wings.



Figure 6-Main Wreckage-Empennage

The wing tanks were breached, and both exhibited hydraulic deformation.



Figure 7-Right Wing Fuel Tank

The cabin area showed crush damage and the engine and its mounting assembly was broken from the airframe structure. The engine had impact damage to the accessory section and was found inverted. The induction and exhaust assemblies had impact damage. Engine control levers and cables had impact damage.



Figure 8-Accident Site, Main Wreckage and Engine



Figure 9-Engine

The propeller and the crankshaft propeller flange separated from the engine. The propeller blades showed light chordwise scuffing on the chambered sides and both were bent slightly aft.



Figure 10-Propeller Assembly

The spinner was crushed, and the majority of the crush damage was on one side.



Figure 11-Propeller Assembly

Seatbelts were secured and latched on both occupants.



Figure 12-Seatbelts, Forward Position

No personal electronic devices or GPS units were found in the wreckage. Family of the pilot receiving instruction, stated that he could have been using Foreflight on his phone during the accident flight. The phone was removed with the bodies from the sight by the medical examiners.

Requesting radar track data from the southern California TRACON.

The wreckage was relocated to Air Transport in Phoenix, Arizona for further examination.