



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

September 10, 2017

ONSITE EXAMINATION NOTES

WPR17FA200

A. ACCIDENT

Location: Benicia, CA
Date: September 9, 2017
Aircraft: Registration Number: N7215J, Raytheon Aircraft Company G36,
NTSB IIC: Albert Nixon

B. EXAMINATION PARTICIPANTS:

Albert Nixon
Aviation Accident Investigator
National Transportation Safety Board
Federal Way, WA

Matthew DeSeelhorst
Aviation Safety Inspector
Federal Aviation Administration
Oakland, CA

Peter Basile
Air Safety Investigator
Textron Aviation
Wichita, KS

Mike Council
Air Safety Investigator
Continental Motors
Mobile, AL

C. DETAILS OF THE INVESTIGATION

Examination of the airplane wreckage was conducted on September 10 and 11, 2017, at the accident site near Benicia, California. No evidence of preimpact mechanical failure or malfunction was noted during the examination of the airframe and engine.

1.0 WRECKAGE AND IMPACT INFORMATION

Examination of the accident site by the National Transportation Safety Board investigator-in-charge revealed the airplane's wreckage came to rest on top of a mesa on flat terrain with dense vegetation at an elevation of about 587 ft mean sea level. The fuselage came to rest upright on a magnetic heading of about 125°. A ground disturbance that measured about 8 ft long, 4 ft wide, and 1 ft deep, contained the majority of the fuselage and engine. The engine was observed partially buried in the ground disturbance. All major structural components of the airplane were located within the wreckage debris area. The airplane damage and ground signatures were consistent with a wing level, nose down, high angle impact, with terrain. There was no post impact fire.



Figure 1: Airplane Wreckage Site terrain.

The airplane's wings were attached to the fuselage and sustained significant compression damage. The leading edges of both wings were crushed aft to the spar. The left and right leading-edge skins, and the main fuel bladders, were ruptured and their fragments were scattered about 170 ft in front of the airplane. Both wing's flaps and ailerons were attached. The front and bottom portions of the wing tip tanks sustained compression damage corresponding to about a 60° nose down impact angle. The landing gear and flaps were retracted.



Figure 2: Left wing as viewed from the left.

Flight control cable continuity was confirmed on all flight controls from the control surfaces to the center portion of the cabin. The elevator trim remained attached to its respective sprocket and the left and right actuators indicated about 2-3° tab up.

The empennage and cabin roof had been removed by first responders. The empennage was separated from the fuselage about 2 ft forward of the vertical stabilizer. The rudder and elevators were attached at all their respective attachments points.

The engine sustained impact damage and was separated from its mounts. The three bladed constant speed propeller, separated at the crankshaft, just aft of the propeller flange. The propeller was located in the ground disturbance, near the engine. Two blades were bent aft about mid-span and two blades exhibited twisting. A hole was observed in the right section of the crankcase between cylinders nos. 1 and 3, that was consistent with external impact forces. All the accessories mounted on the rear of the engine sustained damage.

Six SD data cards located in at the accident site were sent to the NTSB Vehicle Recorders Laboratory for potential data download. In addition, an engine temperature sensor was sent it to determine if it contained non-volatile memory.

An invoice document showed that the airplane was serviced with 31.5 gallons of 100 LL fuel on the day of the accident.

The airplane wreckage was recovered to a secure facility for further examination.

Submitted by: Albert Nixon