



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Western Pacific Region

July 14, 2017

ONSITE EXAMINATION NOTES

WPR17FA150

A. ACCIDENT

Location: Schellville, CA
Date: July 13, 2017
Aircraft: N821SG
NTSB IIC: Albert Nixon

B. EXAMINATION PARTICIPANTS:

Albert Nixon
Aviation Accident Investigator
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C. SUMMARY

Examination of the airplane wreckage was conducted on July 14, 2017, at the accident site near Schellville, California. No evidence of preimpact mechanical failure or malfunction was noted during the examination of the airframe and engine.

D. DETAILS OF THE INVESTIGATION

1.0 WRECKAGE AND IMPACT INFORMATION

Examination of the accident site revealed that the airplane impacted terrain about 1/2 mile west of the Sonoma Skypark Airport, Sonoma, California, at an elevation of about 31 ft. All major components of the airplane were contained within the main wreckage site. Wreckage debris was scattered about 250 ft from the main wreckage. The first identified point of contact was a large area of disturbed hay and dirt, about 8 ft by 3 ft in size and about 6 inches deep, about 75 ft from

the main wreckage. Ground scars and flattened vegetation were observed emanating from this area of disturbed hay and dirt, to the area where the main fuselage came to rest. The airplane came to rest upright in the middle of a wheat field that was about 2 ft high. The field was about 1,900 ft long and 1,000 ft wide. There was no post impact fire.



Figure 1: Airplane Wreckage Viewed from the Right Aft Side.

The fuselage came to rest on a heading of about 006° magnetic. The right wing remained partially attached and the left wing was separated. The empennage was separated from the fuselage aft of the avionics bay. Flight control continuity was established from the individual flight controls to the center portion of the cabin.

The right wing's leading edge exhibited aft crushing the entire span. The leading edge was pointed skyward and still attached to the fuselage. The right flap separated and was buckled underneath the wing. The right aileron was attached at the inboard hinge. Fuel was observed leaking from the area between where the aileron and flap met. A FAA inspector took a sample of about 4 cups of fuel and it was observed to be clear of debris and blue in color. A paste test for water contamination was negative on the fuel sample.

The left wing's leading edge exhibited aft crushing on the inboard portion. About mid-span, the wing was folded over, and the inboard half was inverted. Leading edge damage was observed on the outboard two feet. The left flap remained attached and exhibited impact damage. The left aileron was attached at the inboard hinge. The fuel cap remained attached. The left fuel tank was breached, and no fuel was observed. The empennage was relatively intact. The vertical stabilizer

and rudder were attached to their respective attachment points. The left horizontal stabilizer and elevator had a chordwise wrinkle about mid-span. The right horizontal stabilizer and elevator remained attached. The fuselage was cut through near the vertical stabilizer and the remote data module (RDM) was removed and appeared intact. The rudder trim tab was observed slightly right of the neutral position.

The Cirrus Aircraft Parachute System (CAPS) was found deployed. The parachute was fully extracted, and the canopy was found lying on the ground completely out of the bag. The slider was found near the canopy's skirt. All suspension lines and risers were extracted from the airplane. The aft harness remained snubbed (linked). The deployment bag and rocket motor were located about 200 ft east of the main wreckage. The rocket motor propellant was observed to be expended. The CAPS enclosure cover was located about 250 ft east of the main wreckage. The strike plate of the enclosure cover exhibited an impact mark consistent with rocket impact. The CAPS activation handle was in the holder however, the activation cable was observed fractured.



Figure 2: CAPS Parachute Spread out in Wheat Field.

The instrument control panel and cabin area were substantially crushed and damaged from impact. The top of the cabin had separated. The airspeed indicator was separated and located in the wreckage and read zero. The roll trim indicated about the neutral trim position. The pitch trim motor was found in a slightly nose up trim position. The altimeter had separated and

indicated a setting of 29.95. The attitude indicator indicated 20° nose low and 20° left bank. Both cabin doors had separated, and were located in the wreckage debris, with their latches in the close position.

3 SD data cards were located in the wreckage and secured for shipment to the NTSB Vehicle Recorders laboratory.

The engine came to rest inverted about and about 45° to the right of the fuselage heading. All of the engine mounts were separated. The engine remained attached to the airplane's main fuselage via the throttle control cable, electrical wiring, and intertwined lubricating lines. The three-bladed composite propeller remained attached to the crankshaft and two of the blades were separated at the hub and located near the initial impact area. One of the separated blades exhibited leading edge and chordwise paint erosion. The other separated blade was relatively intact. The blade that remained attached was displayed forward at the tip and displayed light chordwise paint erosion at the tip. The propeller spinner was crushed aft around hub and slightly displaced toward one side.

The fuel inlet and vapor return lines were separated from the engine driven fuel pump. The mixture control cable rod end remained attached the mixture control lever. The mixture control cable was separated from the rod end, the rod was bent, and the lever was deformed. The aneroid bellows housing was distorted and stretched to the side. The low-pressure release valve set screw was bent. The fuel line from the fuel pump to fuel metering unit was intact and in place. The throttle control cable remained attached to the throttle control lever. The fuel manifold valve remained in place on the top side of the engine. The fuel injection valves remained intact.

The engine ignition was in place and the ignition harness was attached. The intake filter remained attached via the scat tubing. The over-boost valve and intake tubing were separated from the induction system. The inner coolers remained in place. The oil feed lines to and from the turbocharger bearing remained in place and were intact. The right turbocharger inlet was visible and appeared intact. The compressor was manually manipulated and rotated freely with no binding. The pressure controller was separated from the firewall, but the lines remained intact and in place. The wastegate actuator linkage remained intact. The oil lines to the actuator remained in place and intact. The oil filter cap remained attached to the filler neck. The oil sump drain cap was displayed and the oil pan breeched. The oil sump was displaced up towards the bottom of the engine. Both exhaust tail pipes were flattened.

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

Submitted by: Albert Nixon