National Transportation Safety Board
Office of Aviation Safety
Washington, DC 20594

WPR22FA012

ACCIDENT SITE AND WRECKAGE EXAMINATION REPORT

Factual Report

October 18-21, 2021

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A. ACCIDENT

Location: Three Points, Arizona
Date: 10/17/2021
Time: 1402 Mountain Standard Time
Airplane: Rockwell International 112B

B. PARTICIPANTS

IIC	Andrew Swick NTSB AS-WPR Phoenix, Arizona
FAA-IIC	Dale Sykes FAA-FSDO Scottsdale, Arizona
Party Member	Mark W. Platt Lycoming Engines Phoenix, Arizona

C. DETAILS OF THE EXAMINATION

1.0 Accident Site Examination

The accident site was about 21 miles southwest of RYN and located on level desert terrain surrounded by sparce desert trees, cacti and dry grass. An area of burned grass extended about 100 ft to the North of the main wreckage. There was no debris field, but the main wreckage was surrounded by broken plexiglass on all sides. The airplane was positioned at a directional heading of about 140 degrees. The wreckage was mostly consumed by postimpact fire. Impact marks in the ground were visible from the right wing tip and propeller assembly. Navigation lens fragments were visible near both of the wing tips. The ground impact marks are consistent with the airplane bouncing on impact, moving about 3 ft in a northernly direction.

Figure 1. Accident site with a view to the North.

Figure 2. Aft view of the left wing.

The left wing had excessive thermal damage. Small portions of the leading edge showed impact damage consistent with the wing impacting the ground in a flat upright position. The aileron control cables were identified, connected to the aileron bell cranks and cable control continuity was established to the forward cabin area. The flap position was not determined due to the excessive thermal damage. The landing gear appeared to be in the retracted position. Actuator position was not obtained.

Figure 3. Forward view of the right wing.

The right wing had excessive thermal damage. Only a small portion of the outboard side of the wing including the outboard side of the aileron was not burned. Small portions of the leading edge shows impact damage consistent with the wing impacting the ground in a flat upright position. The aileron control cables were identified, connected to the aileron bell cranks and cable control continuity was established to the forward cabin area. The flap position was not determined due to the excessive thermal damage. A large section of main spar was bent upward near the landing gear area and had separated from the outboard end near the wheel well area. A large divot was found in the ground near the leading edge of the wing and wheel well area. The landing gear followup door was found partially buried in the divot. The landing gear position was not determined due to impact and thermal damage. Flap position was not determined due to the excessive thermal and impact damage.

Figure 4. Empennage.

The empennage remained attached to the main wreckage by its elevator and rudder control cables. The fuselage forward of the empennage was consumed by the postimpact fire. The left horizontal stabilizer and left elevator remained partially attached and was mostly consumed by postimpact fire. Only a small portion of the horizontal stabilizer remained attached to the vertical stabilizer. The right horizontal stabilizer and right elevator remained attached and had thermal discoloration. The elevator control cable and control tube continuity was established to the cabin controls. The elevator control tube remained attached to each upper and lower bellcrank. The upper portion of the vertical stabilizer was consumed by postimpact fire. The rudder separated from the vertical stabilizer, had impact and thermal damage and was positioned between the elevators. Rudder cable control continuity was attained to the cabin area.

Figure 5. Propeller and engine assembly.

The propeller assembly remained attached to the engine. Two of the propeller blades separated at the hub and were found in the surrounding area. One blade was found partially buried and was in multiple sections. The other blade was found near the hub and remained mostly intact. The spinner was broken and was separated from its hub attachment. The spinner remained hooked to the one remaining attached blade. The attached blade was undamaged and revealed no impact related damage. The engine remained attached to the airframe buy control cables and burned tubes and wires. The engine mounting carriage had impact damage. The accessory section of the engine was visible and had excessive thermal damage. The internal accessory drive gears were visible and both magnetos were thermally damaged. The lower side of the engine had excessive thermal damage. The nose landing gear was not visible during the onsite examination.

Figure 6. View of the forward cabin area.

The cabin area had excessive impact damage. The instrument panel had excessive thermal damage and no switches or instrument offered any data or positions. Flight control cable continuity was established to the central cabin area and associated bellcranks and attachments.

2.0 Follow-up wreckage examination

The wreckage was relocated to Air Transport, in Phoenix, Arizona, where a follow-up examination will take place. A Lycoming Engines investigator was present for the follow-up examination.

Figure 7. Wreckage examination layout.

Fuel selector valve was found in the "Both" position.

Aileron, rudder and elevator trim positions were undetermined due to thermal and impact damage.

Flaps position was undetermined due to thermal and impact damage.

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Figure 8. Main landing gear assemblies.

The engine was examined by the Lycoming Engines investigator.

The postaccident examination of the engine and airframe revealed no evidence of any preimpact mechanical malfunctions or failures that would have precluded normal operation.

Submitted by:

Andrew Swick
Aviation Accident Investigator