



## **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Aviation Safety  
Western Pacific Region

November 4, 2021

# **ONSITE EXAMINATION SUMMARY REPORT**

**WPR22FA026**

This document contains 6 embedded photos.

## A. ACCIDENT

Location: Shafter, California  
Date/Time: November 3, 2021, 1130 PDT (1830Z)  
Aircraft: N8960Q; Ayers Corp./S-2R  
NTSB Investigator-in-Charge: Andrew Swick

## B. ACCIDENT SITE

Main Wreckage: N 35° 31.073' W119° 13.059' – Elevation: 406 feet

A postaccident examination of the accident site revealed that the airplane impacted terrain in a right wing low, nose-down, unusual attitude. The distance from the first identified point of contact (FIPC) with the ground, to the main wreckage was about 330 ft, and on a 268-degree heading. The full distance of the debris field was about 800 ft in length that paralleled a small ditch and access road.

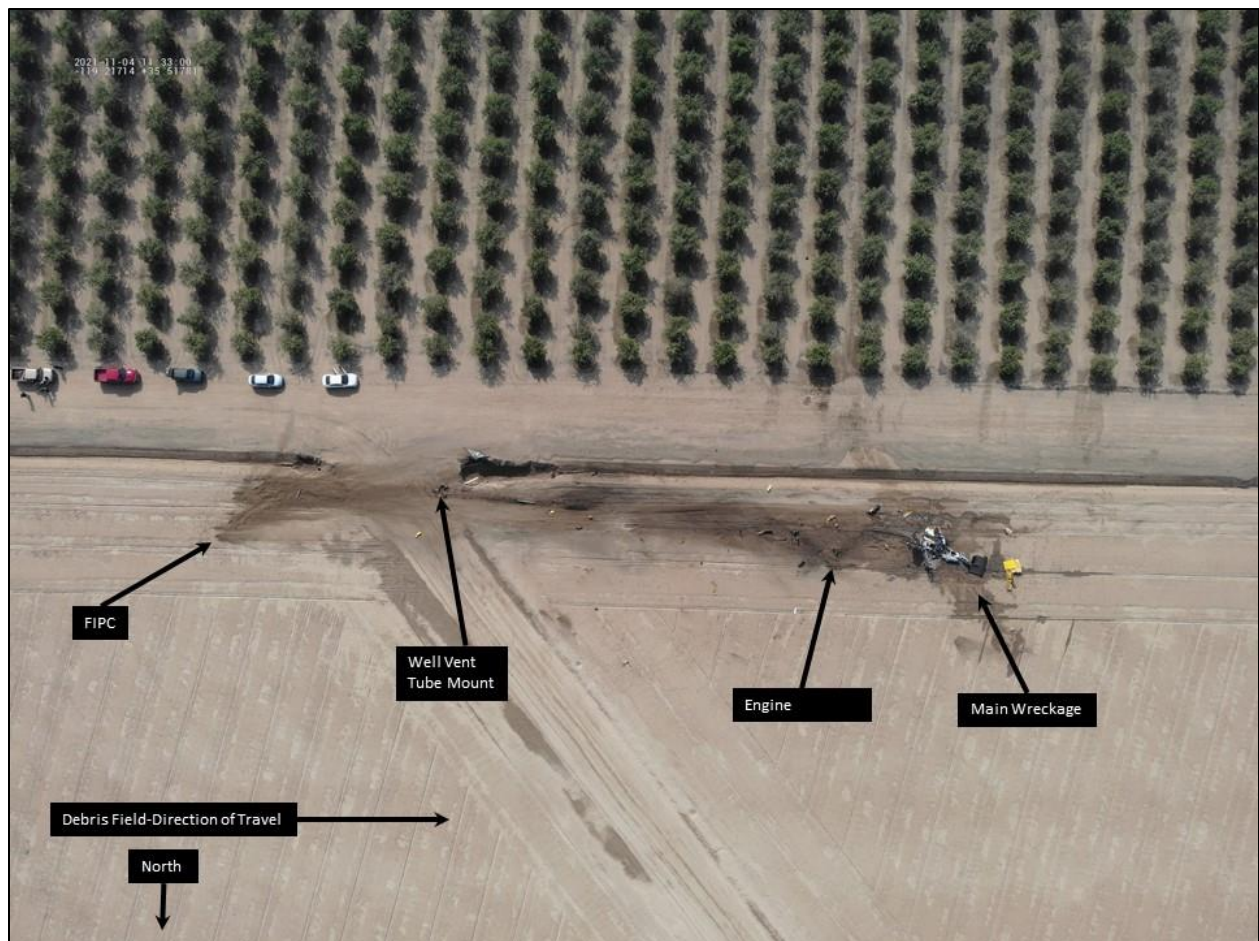


Figure 1-Wreckage diagram. (Photo courtesy of the Kern County Sheriffs Office)

The FIPC with the ground was a yellow paint transfer mark on the top of the soil, followed by ground impact. The ground impact marks were consistent with the right-wing tip and spray boom support brackets on the wing's lower surface and flap hinge supports. A deep trough was noted near the FIPC, that spread throughout the disturbed ground in a diagonal direction from travel. Fuel saturated soil was noted near the center of the disturbed ground. About 80 ft from the FIPC was a slightly raised road that ran diagonally through the debris field. On the other side of the road, about 110 ft from the FIPC, was a well vent pipe. Other well vent pipes in the area stand about 20 ft tall and about 6 inches in diameter. The vent pipe is a heavy cast iron material and was mounted to the ground within a concrete base. The concrete base was damaged and the vent pipe was pulled from mount and separated into two sections. An 8 ft section of the vent pipe was found separated from the mount about 30 ft further in the debris field. The seed spreader was found on the south side of the ditch near the vent pipe mount. Various panels and fuselage skin were found throughout the debris field. The panels and the surrounding ground had sooting and thermal discoloration. The tailwheel separated from the main wreckage and was found about 130 ft from the debris field, to the south, in a neighboring orchard.



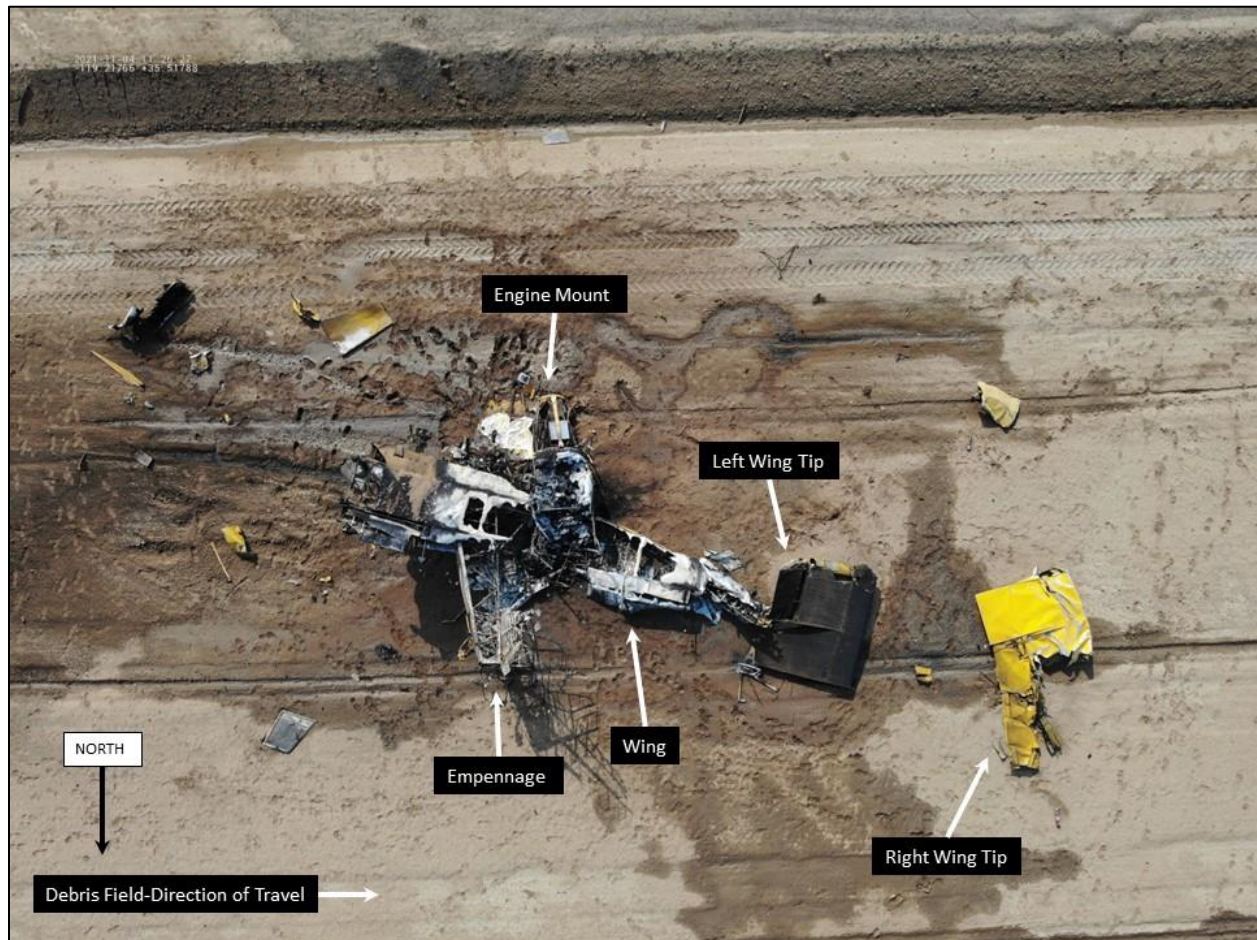
**Figure 2-Main wreckage, view to the south.**

The engine found next in the debris field and was found in two large sections. The propeller assembly remained attached to the engine gearbox. The propeller spinner was crushed, and two blades separated from the hub. One blade was found near the engine and the other was found on the north side of the debris field near the raised road. A deep narrow ground depression was found about halfway through the debris field and continued in a slight left turn till reaching the main wreckage. The power section of the engine was found partially buried in its crater. Both cabin entry window sections separated from the main wreckage and were found on the north side of the debris field, one near the main wreckage.



**Figure 3-Debris field, propeller ground scars and engine sections.**

The main wreckage was partially consumed by postimpact fire. The fuselage was found in two sections; separated near the forward cabin area. The aft fuselage including the cabin seat, was found on its right side with buckling of the right horizontal stabilizer and elevator. The right rudder cable showed overload signatures near the aft cabin area. The left rudder cable length was intact to the cabin area. The rudder moved freely when control cables were pulled. The elevator control tube had thermal damage and had melted free from its elevator bellcrank and cabin linkage. The forward fuselage section was found upright and about 1 with buckling near the hopper and battery box area.



**Figure 4-Aerial view of the main wreckage. (Photo is courtesy of Kern County Sheriff's Office)**

The wing spar outboard sections separated. The remained wing spar remained intact and was attached to the fuselage. The wing spar had aft bending on the right side. Both wing tips were found near the main wreckage. The left wing tip, about 5 ft long, was covered in a sooty residue, a 3 ft section of the aileron remained attached.. The left wing tip outboard surface was undamaged. The right wing tip was not covered in a sooty residue and had crushing near the leading edge consistent with ground impact. A large section of the right aileron remained attached to the wing tip.



Figure 5-Aerial view of the main wreckage with identified sections. (Photo is courtesy of Kern County Sheriff's Office)

Impact damage was found on the left lower and side of the fuselage near the cabin seat area that is consistent in shape with the well vent tube diameter. The structural tubing on the left side of the seat area was pushed inward and the upper section of the seat, near the seat's left shoulder area was damaged.



Figure 6-Lower side of fuselage, impact damage.

All of the airplane's flight controls were found at the accident site and flight control cable continuity was established to the cabin area.

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

Submitted by:

Andrew Swick  
Aviation Accident Investigator