

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



WPR24FA202

ACCIDENT SITE SUMMARY

Factual Report

June 22-23, 2024

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A. ACCIDENT

Location: Capitan, NM
Date: 6/21/2024
Time: 1045 MDT
1745 UTC
Airplane: N331BS, Air Tractor AT-802A

B. ACCIDENT SITE SUMMARY PARTICIPANTS

NTSB-IIC	Albert Nixon NTSB, AS-WPR Phoenix, Arizona
Air Tractor	Kyle Schroeder Air Tractor Director of Engineering Olney, Texas

C. SUMMARY

Examination of the airplane wreckage was conducted on June 22 and 23, 2024, at the accident site about 9 miles ENE of Capitan Mountain in New Mexico. The Air Tractor representative arrived for the June 23 examination of the site. No evidence of preimpact mechanical failures or malfunctions that would have precluded normal operation was noted during the onsite examination.

D. DETAILS OF THE EXAMINATION

1.0 Accident Site Examination

Examination of the accident site revealed that the airplane impacted terrain in heavy forested terrain. The terrain consisted of trees with a maximum height of about 50 ft and, at an elevation of about 7,160 ft msl, and a slope of about 10°. The airplane was largely fragmented, and a large number of broken tree branches were found along the debris trail. All major components of the airplane were located at the accident site. There was a post impact fire that thermally damaged the engine and nearby components.

The primary debris field was about 120 ft long on a heading off about 335° magnetic. The first identified point of initial contact was a tree, where portions of the right-wing tip were located. From that point a ground scar led to a large ground disturbance where the engine was embedded into the ground. The disturbance was about 6 ft

wide x 15 ft long x 1 ft in depth. The largest part of the main fuselage (empennage) of the airplane wreckage came to rest on its left side. Most of the debris found uphill from the debris path was from the top portion of the airplane and most of the debris found below the debris path was from the bottom of the airplane. Some fragments were scattered in each direction of the debris path. The furthest airplane fragment was located about 300 ft from the main debris path. The debris path and ground scars were consistent with a high speed and nearly level flight path at impact.



Figure 1: Airplane wreckage debris trail.

2.0 Airframe Site Examination

FUSELAGE:

The fuselage and fuselage frame were found destroyed and heavily segmented. Fuselage frame components were spread throughout the debris trail with the only portion of the frame that was not segmented was the aftmost one foot of the frame. This portion of the frame remained connected to the vertical fin, the aft portion of the elevator controls, the tail landing gear, and the horizontal stabilizers.

The cockpit was destroyed and spread throughout the debris trail. The seat was liberated from the fuselage structure and was found with heavy damage in a tree on the northeast edge of the debris field. The seat remained attached to the seat rails. Both seat rails were separated above the seat attachment. Cockpit overturn structure tubes were found segmented and located throughout scene.

Seat belt and shoulder harness components were found in the wreckage. The lap belt was found unlatched. The left lap belt remained attached to the seat. The anchor point of the right lap belt was fractured. The aircraft was equipped with AmSafe Inflatable (airbag) restraints in the shoulder harnesses. The system was found to have deployed on both shoulder sides of the harness. All of the anchor points of the shoulder harnesses were found intact.

The cockpit doors were found detached from the fuselage and segmented. The preimpact positions of the powerplant control levers could not be determined due to impact damage and components scattered throughout the wreckage.

LANDING GEAR:

The main gear springs were both found located near the beginning of the debris trail. The wheels, tires, and brake components for each were found separated and located on the western side of the debris field. The tail wheel was found attached to the fuselage with no discernable impact damage.

WINGS:

The main wing spars were found at the far north end of the debris trail with all other wing components stripped away from the impact forces. The center splice remained intact. The rear spars for each wing were found nearby in the wreckage with some wing surfaces still attached. The remainder of the wing components were found throughout the debris field.

The right aileron counterweight was found at the initial impact point of the debris trail, and the remainder of the right aileron was found on the top of a tree nearby. The left aileron and both flaps were found with the rear spar wreckage at the north end of the debris trail.

EMPENNAGE:

All stabilizers and control surfaces of the empennage were found in the wreckage. These components were all heavily segmented. Both horizontal stabilizers and the majority of the vertical fin were found still attached to the aftmost portion of the fuselage wreckage. Both horizontal stabilizer V-struts were also found attached to the wreckage.

FLIGHT CONTROLS:

Flight control continuity could not be established on scene due to the heavily segmented nature of the wreckage consistent the impact.

A portion of the flap actuator was found, and it appeared to be partially extended.

DISTURBANCE OF WRECKAGE:

The instrument faces were found seperated.

3.0 Exterior Engine Site Examination

The engine sustained thermal damage. The engine separated from the fuselage and was embedded in the ground. The five-bladed propeller hub was not located and likely buried in the ground. The top of the engine was orientated on about an easterly heading. Two blades were found partially embedded in the ground next to the engine. Two blades that separated from the hub, had gouges and the outer portion of the blade had seperated about mid-span. The fifth blade was not located but was likely buried in the ground. There was about a 5 ft burn radius pattern around the engine and a nearby burnt tree.

Submitted by:

Albert Nixon
Senior Aviation Accident Investigator