



Air Tractor, Inc.
Accident Investigation

Airframe Accident Report

NTSB Accident Number:

CEN20LA357

Date & Location of Accident:

8/21/20
Blytheville, AR

NTSB REQUESTED CONFIDENTIAL:

The information contained in this report is produced for the sole purpose of providing observations and information to the NTSB and/or FAA during an active accident investigation. No entity may release or share this information prior to its inclusion in the NTSB's public docket without the express written consent of Air Tractor, Inc.

PREPARED BY:

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Air Tractor, Inc.





Example of AT-802A

The information contained in this report is the result of traveling to the accident scene on 8/25/20 under the supervision of FAA Inspectors Danny Brickey and Paul Centinaro. The wreckage examination was conducted at the accident scene. Also present during the on-scene investigation was Dakota Lowe of Air Tractor.

This report is subject to revision as additional information becomes available. The intent of this report is to provide details relating to the investigation of the subject accident. This report is not to be shared with any person outside the scope of this official investigation.

GENERAL OBSERVATIONS OF WRECKAGE AND ACCIDENT SITE:

Arrival at the accident site was approximately 10:00 pm on 8/25/20. The aircraft wreckage was found in a soybean field approximately 6.5 miles west-southwest of Blytheville, AR. The accident was found in a field south of the target field. The accident field was found to have power distribution lines running along the northern and western borders. Power transmission lines were found in the neighboring field to the east. The accident field was found with a center pivot running to the west.

The aircraft was found upright position with heavy crush damage to the forward fuselage and wings. The aft fuselage and empennage were found with minimal crush damage. The fuselage was found on a northern heading with the tail bent to the right. No horizontal debris trail or ground scars were found leading up to the wreckage. The forward fuselage was found with a magnetic heading of 3°. The aft fuselage was found with a magnetic heading of 328°.



Overview of Wreckage (Looking Southeast)

The airplane was confirmed to be N759FA, an Air Tractor AT-802A, serial number 802A-0759 which was manufactured in 2018. The Hobbs meter was found showing 1320.5 hours on the airplane.

FUSELAGE:

The fuselage was found upright with crush damage. The airplane was equipped with AmSafe Inflatable Restraints (airbags), which were found in the deployed state. The restraints were found unbuckled.



Fuselage Wreckage

The powerplant control levers were found in the following positions: Power Lever at or near full power, Propeller Lever at or near full RPM, and the Condition Lever between the flight idle and ground idle positions. The preimpact position of the powerplant control levers could not be determined due to impact damage. Engine control continuity could not be established due to impact damage.

LANDING GEAR:

Both main landing gear springs were found with the wreckage near their appropriate locations. The right main wheel was found separated from the gear spring near the main wreckage. The tail gear was found attached to the aft fuselage with no discernable damage.

WINGS:

The wings were found with crush damage in the aft direction. The right wing tip was found separated from the wing just south of the wing wreckage. Both flaps and both ailerons were found attached to the wings. The flaps and ailerons exhibited deformation and damage.



Right Wing Wreckage



Left Wing Wreckage

Each of the wings were equipped to hold 153 gallons of fuel in the integral wing fuel tanks for a total of 306 gallons. Both fuel tanks were found ruptured. Both fuel caps were found properly installed.

EMPENNAGE:

The empennage surfaces were present near the aft end of the fuselage. The vertical fin remained attached to the aft fuselage. The rudder remained attached to the vertical fin. The vertical fin and rudder were found with relatively little damage.



Vertical Stabilizer and Rudder Wreckage

The left horizontal stabilizer was found separated from the aft fuselage attach points. The right horizontal stabilizer was found attached to the fuselage. The right rear horizontal stabilizer attach point was found separated. The left and right horizontal stabilizers were found with crush damage to the forward inboard corners. This damage is consistent with rapid deceleration in the forward direction which would cause the forward inboard portion of the stabilizer to crush against the fuselage. The left and right elevators were found attached to the horizontal stabilizers.



Left Horizontal Stabilizer and Elevator Wreckage



Right Horizontal Stabilizer and Elevator Wreckage

FLIGHT CONTROLS:

All flight control surfaces were located with the wreckage. The flight controls were damaged, but flight control continuity was established to the extent possible by the condition of the wreckage. Flight control continuity could not be established due to impact damage however, all observed separations were consistent with overstress.

Elevator Controls

The elevator controls are manually operated by steel and aluminum pushrods connecting the control stick to the elevator control horns through two control idlers. The controls were found to be continuous from the control horns to the forward steel pushrod. The condition of the pushrod could not be determined due to the condition of the wreckage. The forward end of the pushrod was found attached to the control stick. The aft end of the pushrod was found attached to the forward idler.

Rudder Controls

The rudder controls are manually operated by a pair of stainless-steel cables running directly from the rudder pedal assemblies to the rudder control horns. The left rudder cable was traced forward and found to be continuous from the control horn to the rudder pedal attach point. The right rudder cable was found to be continuous from the control horn to the cable's cockpit entrance. The condition of the cable forward of the aft cockpit wall could not be determined due to the condition of the wreckage. The forward end of the right rudder cable was found connected to the pedal attach point.

Aileron Controls

The aileron controls are manually operated by steel and aluminum pushrods connecting the control stick to the aileron control horns through multiple torque tubes, idlers and bellcranks.

The primary aileron controls were found to be continuous from the control stick to the aft arm of the lower torque tube. The aft arm of the lower torque tube was found to have separated. The separated portion of the arm was found attached to the pushrod located between the torque tubes. The lower torque tube was found to be continuous to the forward arms.

The forward arm of the torque tube that connects to the right fuselage mounted pushrod was found to have separated. The separated portion of the arm was found attached to the pushrod. The controls were found to be continuous from the separation in the forward arm to the inboard rod end of the right aluminum pushrod. The inboard rod end was found separated from the aluminum pushrod, connected to the right idler. The controls to the right aileron were found to be continuous from the separation in the aluminum pushrod to the right aileron by sympathetic movement of the pushrod when the aileron was moved.

The controls to left aileron were found to be continuous from the lower torque tube to the aluminum pushrod. The condition of the aluminum pushrod could not be determined due to the condition of the wreckage. The inboard end of the pushrod was found connected to the left idler. The outboard end of the pushrod was found connected to the wing mounted bell crank. The controls were found to be continuous from the outboard rod end of the aluminum pushrod

to the left aileron control horn.

Flap System

The pre-impact position of the flap actuator could not be determined due to impact damage. The flap actuator was found with an extension of 3 1/4 inches which corresponds to 27° of flaps. The flap actuator pushrod was found to be separated at the near actuator tee assembly. The actuator tee assembly was found loosely connected to the flap torque tube. The right flap controls were continuous to the control horn except for a separation in the pushrod near the aft rod end. The left flap controls were continuous to the control horn except for a separation in the arm at the end of the torque tube.



Flap Actuator Gearbox

POWERPLANT:

The powerplant was found with the main wreckage. The powerplant was not examined due to the condition of the wreckage.



Engine and propeller Wreckage

The engine was equipped with a five-bladed constant speed, fully reversable, propeller. Three of the propeller blades were found with the wreckage. The remaining blades were not located due to the condition of the wreckage.

DISTURBANCE OF WRECKAGE:

Disturbance of the wreckage was limited to handling components to the extent necessary for identification and documenting their condition, including removing inspection covers/access panels. We did not make any modification to the aircraft wreckage that would intentionally result in loss of evidence. No portion of the wreckage was removed by Air Tractor personnel during our involvement in this accident investigation.

A Satloc agricultural GPS unit, a Garmin Aera 660, S/N: 4NN013224 portable GPS and an Electronics International MVP-50T, S/N: 202173 engine Monitor were removed from the wreckage before the arrival of Air Tractor personnel, and taken possession of by the FAA.