



Air Tractor, Inc.
Accident Investigation

AIRFRAME REPORT

NTSB Accident Number:

CEN21LA223

Date & Location of Accident:

5/18/21
Clayton, LA

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:

Dakota Lowe
Air Tractor, Inc.

FACTUAL INFORMATION

AIRCRAFT:

AT-502A manufactured in 2013
502A-2887
N887LA

DATE & TIME:

05/18/21
~13:25 local (CST)

INJURIES:

Fatal

LOCATION:

Approx. 6 miles north-northwest of Clayton,
LA
N 31.80120° W -91.58681° (Crash site)

PILOT:

Jakob Porter (22)

OPERATOR:

Ferriday Flying Service

NTSB INVESTIGATOR:

Josh Lindberg
Air Safety Investigator
National Transportation Safety Board

INSURANCE:

Not Recorded

FAA INVESTIGATOR:

Mike Wilson
Richard Gordon
Baton Rouge FSDO

SALVAGE:

T.W. Cook
Southern Aircraft Recovery, Inc.

OTHER CONTACTS:

OTHER CONTACTS:



Example of AT-502 in Flight

The information contained in this report is the result of traveling to the accident scene on 5/19/21 and 5/20/21 under the supervision of FAA Inspectors Mike Wilson and Richard Gordon of the Baton Rouge FSDO. The wreckage examination was conducted at the accident scene. This report documents the state of the wreckage upon arrival at the scene and not necessarily the state of the scene immediately following the accident.

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 scene was at approximately 9:00 am on 5/19/21. The aircraft wreckage was found near the center of a fallow field approximately 6 miles north-northwest of Clayton, LA, 850 feet west of US Highway 425.

Power transmission lines were located approximately 1,000 ft west of the wreckage, running north-northwest. Thick tree growth made up the northern edge and the southwest corner of the accident field. The western edge of the accident field contained sparse trees and shrubs. The east edge of the field contained shrubs and bushes. Power distribution lines were located along the east side of US Highway 425.

Small fragments of yellow paint and clear, tinted, plastic, consistent with the cockpit windows were found aft of the main wreckage. There were no discernable ground scars leading up to the wreckage. There were no signs of pre- or post-impact fire. The aircraft was found upside down with a heading of 122° (magnetic).



Overview of Wreckage (Looking North-Northeast)

The airplane was confirmed to be N887LA, an Air Tractor AT-502A, serial number 502A-2887 which was manufactured in 2013.

FUSELAGE:

The fuselage was found upside down with crush damage to the forward fuselage in the downward direction. The forward fuselage frame was found fragmented. The fuselage aft of the cockpit was found with minor damage.



Forward Fuselage Wreckage



Aft Fuselage Wreckage

The airplane was equipped with a five-point AmSafe inflatable restraint (airbags). The webbing of the harness and lap belt was found separated consistent with having been cut. The lap belt and shoulder harness buckles were found buckled outside the cockpit. The crotch strap was not located during the on-scene examination. The airbags were found in the deployed state.

The preimpact position of the powerplant control levers could not be determined due to the impact forces. The power quadrant was found with the power lever in a mid-power position, the propeller lever was near the feather position, and the condition lever near the ground idle position.

LANDING GEAR:

The main landing gear was found attached to the fuselage with no discernable impact damage. The tail gear was found attached to the fuselage with no discernable impact damage.

WINGS:

The wing center splice was found intact. The main spars remained attached to the fuselage attach points. The left rear spar was found separated from the fuselage attach point consistent with overstress. The rear spar attach hardware was found installed in the proper location. The right rear spar remained attached to the fuselage attach point.

The left wing was found with crush damage in the downward direction. Fragments of red glass were found on the ground near the left wing tip. The left aileron and flap were found attached to the wing. The inboard trailing edge rib was found pressed up against the outboard end of the aileron. The inboard end of the aileron was pressed against the outboard end of the flap. The inboard end of the flap was found with crush damage in the outboard direction.



Left Wing Wreckage

The right wing was found with crush damage in the downward direction with the outboard leading edge bent down. Fragments of green glass were found on the ground near the wingtip. The right aileron and flap were found attached to the wing with relatively little damage.



Right Wing Wreckage

Each of the wings were equipped to hold 117 gallons of fuel in the integral wing fuel tanks for a total of 234 gallons. The fuel tanks were found ruptured.

EMPENNAGE:

The empennage surfaces were present at the aft end of the fuselage. The vertical fin was found attached to the aft fuselage with crush damage in the downward and aft direction. The rudder was found attached to the vertical fin. The top of the rudder exhibited crush damage in the downward direction. Fragments of the fiberglass rudder tip were found in an impact crater below the rudder wreckage.



Empennage Wreckage

The left horizontal stabilizer was found attached to the fuselage bent in the downward direction outboard of the V-strut attach point. The left elevator remained attached to the horizontal stabilizer. The left elevator was found bent downward outboard of the V-strut. The right horizontal stabilizer was found rotated upward at the fuselage attach point. The stabilizer brace assembly was found separated, displaced inboard. The leading edge of the right elevator balance horn was found with crush damage in the down and aft direction.



Right Horizontal Stabilizer

FLIGHT CONTROLS:

All flight control surfaces were located with the main 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 stick to the elevator control horns.

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. Both rudder cables remained attached at the rudder control horn. The right rudder cable was traced forward and found to be continuous to the right rudder pedal. The left rudder cable was traced forward to the cockpit and found to be continuous to the aluminum pedal adjust channel which was separated from the left rudder pedal. The channel was found fractured through one of the adjustment holes. The T-pin was found installed in the rudder pedal.

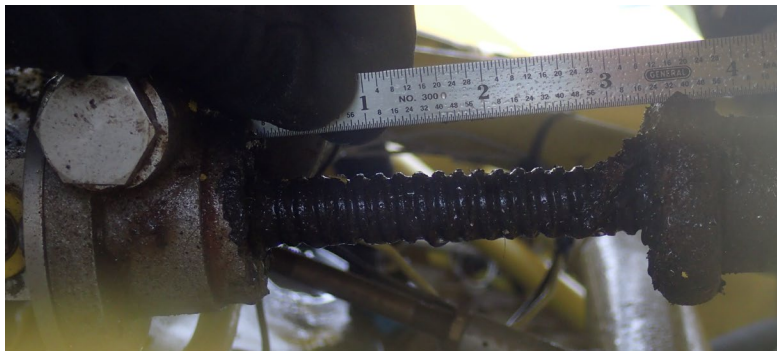
Aileron Controls

The aileron controls are manually operated by steel and aluminum pushrods connecting the control stick to the aileron control horns through a torquetube and multiple bellcranks and idlers. In addition, the AT-502 ailerons incorporate a drooping feature that lowers both ailerons in conjunction with extension of the flaps. The aileron drooping controls are documented below under "Flap System".

The primary aileron controls were continuous to the right aileron except for a separation in the inboard rod end bearing of the aluminum wing mounted pushrod. The left aileron controls were found to be continuous from the control stick to the aileron. Continuity of both aileron controls outboard of the inboard aluminum wing mounted pushrod rod end was established through sympathetic movement of the inboard rod ends when the ailerons were moved.

Flap System

The flap actuator was found near the fully extended position. The extension of the flap actuator measured approximately 3 1/4 inch, which corresponds to a flap extension of 25.4°. The flap control system was found to be continuous from the flap actuator to the flap arms. The aileron drooping system was found to be continuous.



Flap Actuator

POWERPLANT:

The powerplant remained attached to the engine mount and fuselage. The engine was found to have separated at the "A" flange. The reduction gearbox and propeller were found at the front of the main wreckage near the main powerplant wreckage.



Engine Wreckage

The engine was equipped with five-bladed constant speed, fully reversible, propeller. The propeller hub was found attached to the reduction gearbox. All propeller blade shanks were found attached to the propeller hub. Two of the propeller blades were found to have fractured near their shank. The fractured portions of the blades were found in the impact crater containing the propeller hub.



Propeller Wreckage

DISTURBANCE OF WRECKAGE:

Our 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, except for the removal of a Satloc Bantam agricultural GPS unit that was provided to the FAA on scene. This Satloc unit was P/N: 806-1034-000#_L (S/N: 1739-HH12998-0024).

The FAA took possession of a flash drive that was found at the scene.