



Air Tractor, Inc.
Accident Investigation

AIRFRAME REPORT

NTSB Accident Number:

CEN23FA353

Date & Location of Accident:

8/8/2023
Gilman City, MO

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:

Stephan Nelle
Air Tractor, Inc.

FACTUAL INFORMATION

AIRCRAFT:

AT-802 manufactured in 2017
802-0698
N804AA

DATE & TIME:

8/8/2023
11:50 local (CDT)

INJURIES:

Fatal

LOCATION:

Approx. 3 nm SSE of Gilman City, MO
N 40.09282° W ° -93.89180 (Crash site)

PILOT:

William Austin Scrogin (26)
[REDACTED]
Poplar Bluff, MO 63901-8122

OPERATOR:

Rice Flying Service
[REDACTED]
Corning, AR 72422

NTSB INVESTIGATOR (IIC):

Joshua Lindberg
Senior Aviation Accident Investigator
National Transportation Safety Board
[REDACTED]

INSURANCE:

Russell Day
Old Republic Aerospace
[REDACTED]

NTSB INVESTIGATOR (DEPUTY IIC):

Brian Rutt
Air Safety Investigator
National Transportation Safety Board
[REDACTED]

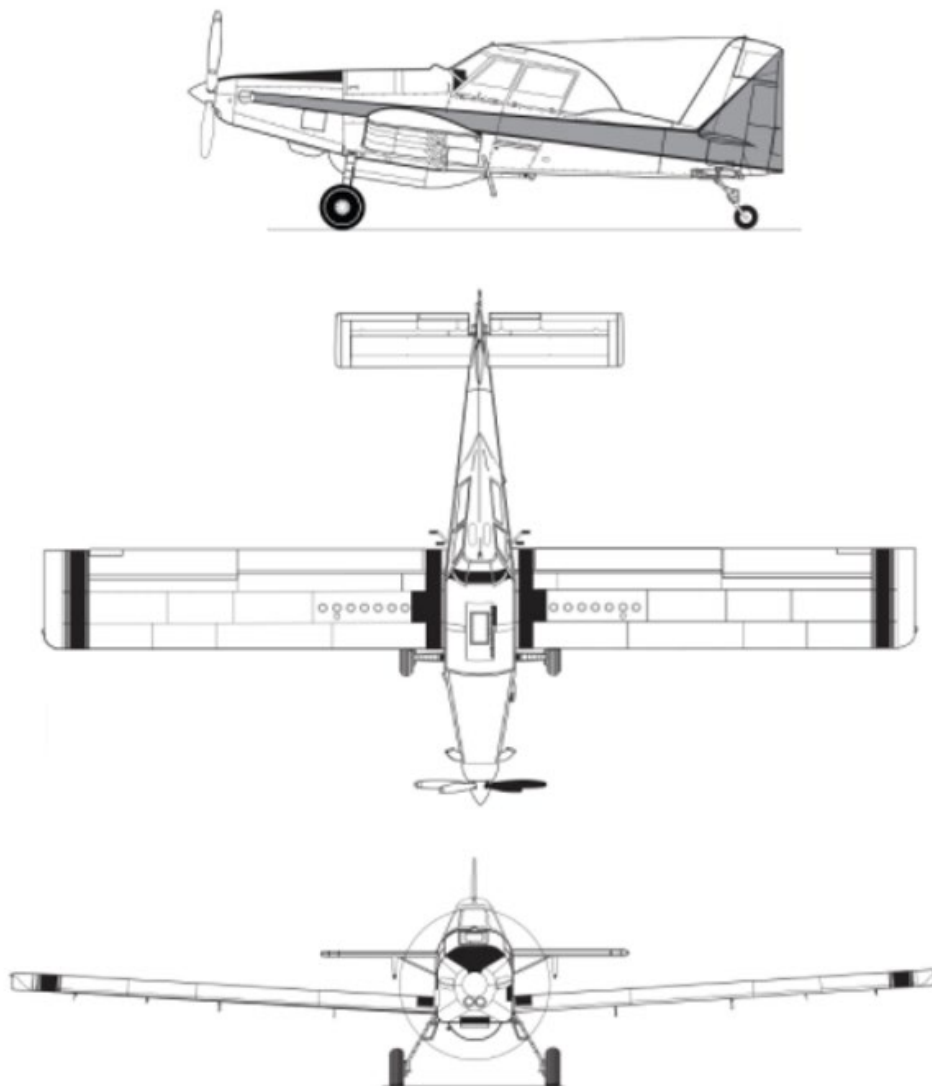
SALVAGE:

Aaron Cooper
Dawson Aircraft
[REDACTED]

FAA INSPECTOR:

Tom Davis
Aviation Safety Inspector
Kansas City FSDO
[REDACTED]

OTHER CONTACTS:



Three-view of AT-802

The information contained in this report is the result of traveling to the accident scene on 8/9/23 and 8/10/23 under the supervision of NTSB IIC Joshua Lindberg. The wreckage examination was conducted at the accident scene. Also present during the investigation were FAA Inspector Tom Davis, NTSB Investigator Brian Rutt, and Dakota Lowe with 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 1:20 pm on 8/9/2023. The aircraft wreckage was found in a soybean field 3 nautical miles south-southwest (196°) of Gilman City, MO. The airplane was reported to have been applying granulated urea ammonium sulfate fertilizer to a soybean field. The wreckage was .5 nautical miles east-southeast (100°) from the eastern edge of the field being fertilized. The ground was found to be soft and muddy.

Obstacles in the vicinity were a water tower approximately 1650 feet northeast of the accident site, an east-west line of trees approximately 400 feet north of the accident site, and an east-west powerline approximately 900 feet south of the accident site. There was no observed damaged on the obstacles.

There were no ground scars leading up to the wreckage. All components were located near the main wreckage. The airplane was found upright. The right wing was partially consumed by fire. The fuselage exhibited fire damaged from the engine compartment to the aft end of the cockpit. The smell of fuel was noted at the accident site. The airplane was found on a 280° magnetic heading.



Wreckage Overview (looking southwest)

The airplane was confirmed to be N804AA, an Air Tractor AT-802, serial number 802-0698 which was manufactured in 2017. The Hobbs meter was found to have been destroyed by fire.

FUSELAGE:

The fuselage was found upright, with fire damage from the firewall to the aft end of the cockpit. There was upward crush damage to the fuselage.

Occupiable space was maintained. The upper inboard seat rail attach plates were found separated from the fuselage frame structure consistent with overstress and remained attached to the seat rails with hardware attached. The upper outboard seat rail attach plates remained attached to the fuselage frame and the hardware holes were found torn out. The seat rails and seat frame were found bent forwards at the upper seat attach brackets. The aft right vertical tube of the seat frame was found separated immediately below the upper seat frame attach bracket consistent with overstress. The pan portion of the seat frame was deflected down approximately 30° relative to the back of the seat.

The aircraft was found equipped with five-point AmSafe inflatable restraints (airbags). The harness webbing and airbags were consumed by fire. The five-point buckle was found fully latched. The airbag inflators were found under the cockpit floor and were fire damaged.

The preimpact position of the powerplant control levers could not be determined due to impact forces. Engine control continuity could not be established due to the condition of the wreckage. The power lever was found in a high power position. The propeller lever was found in a medium-high to high RPM position. The fuel condition lever was found in the ground idle position.



Fuselage (looking southwest)

LANDING GEAR:

The main gear was found embedded in the ground under the fuselage. The left gear spring was found separated from the fuselage. The left wheel was found separated from the left gear spring and was found embedded in the ground under the inboard end of the left wing. The right gear remained attached to the fuselage and the right wheel remained attached to the right gear spring.



Left Gear Spring



Right Gear

The tail wheel assembly was found separated from the tail gear spring and remained attached to the fuselage by the tail wheel lock cable.



Tail Gear

WINGS:

The wing center splice connection was found intact. The main spar was found connected to both fuselage attach locations. The left rear spar attach was found separated and the attach hardware was present in the fuselage attach point. The right rear spar was found attached to the fuselage.

Each wing was equipped to hold 189 gallons of fuel in the integral wing fuel tanks for a total of 378 gallons. Both fuel caps were found installed. The left fuel tank was found ruptured. The right fuel tank was consumed by fire.

The left wing was found with crush damage in the up and aft directions to the leading edge. The left aileron and flap were found attached to the wing. Fire damage was found on the left wing.



Left Wing

The right wing was found with crush damage in the up and aft directions to the leading edge. The right wing was found with heavy fire damage. The right aileron was attached to the wing and exhibited fire damage at the inboard end. The right flap was mostly consumed by fire. The right flap hinges were found attached to the wing.



Right Wing

EMPENNAGE:

The left horizontal stabilizer was separated from the fuselage. The forward fuselage-side attach point was found separated through the solid section of the lug portion consistent with tension overstress. The aft fuselage-side attach point was found torn out. The hardware remained installed in the horizontal stabilizer. The left auxiliary fin remained attached to the stabilizer and was found with impact damage in the upward direction. The left elevator remained attached the stabilizer. The forward and aft v-strut attachments were found separated from the horizontal stabilizer at the clevises consistent with overstress. Both clevises remained attached to the stabilizer. The v-strut remained attached to the fuselage attach point.



Left Horizontal Stabilizer and Elevator, Vertical Fin, and Rudder (rudder on ground)

The right horizontal stabilizer was attached to the fuselage at the forward attach point. The aft fuselage attach point was found torn out. The hardware remained with the horizontal stabilizer. The right auxiliary fin remained attached to the stabilizer and was found with impact damage in the upward direction. The fiberglass tip was found separated from the auxiliary fin, lodged in the ground below the horizontal stabilizer. The right elevator remained attached the stabilizer. The aft v-strut attachment was separated from the horizontal stabilizer at the clevis consistent with overstress. The clevis remained attached to the stabilizer. The v-strut remained attached to the fuselage attach point.

The elevator control horns were attached to the aft elevator pushrod. The elevator control horns were separated from the stabilizer attach bracket consistent with impact damage.

The vertical fin was attached to the fuselage. The upper aft fuselage skin was damaged consistent with rapid deceleration in the forward direction which would cause the lower forward portion of the vertical stabilizer to crush against the top of the fuselage. The rudder was separated from the vertical fin and was found near the aft end of the fuselage. The separations were consistent with overstress. The rudder remained attached to the fuselage through the rudder cables.



Empennage (rudder on ground)

FLIGHT CONTROLS:

Flight control continuity was established to the extent possible by the condition of the wreckage. Flight control continuity could not be established; however, all observed separations were consistent with impact or fire damage.

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 forward control stick was found separated above elevator pushrod rod end connection consistent with bending overstress. The control stick socket was fire damaged and separated from the upper torque tube. The rod end attaching the control stick to the forward elevator pushrod was found separated consistent with bending overstress and the rod end remained attached to the lower section of the control stick. The controls were found to be continuous from the forward

pushrod to the aluminum pushrod. The forward aluminum pushrod rod end was found attached to the forward elevator idler. The forward end of the aluminum elevator pushrod was found separated from the rod end consistent with fire damage. The elevator controls were found to be continuous from the aft section of the aluminum pushrod to the elevator control horns.

Rudder Controls

The rudder controls are manually operated by a pair of pushrods and 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 rudder cables were found to be continuous from the rudder horn to the rudder cable attach plates. The rudder cable attach plates were separated from the aft pedal attach channels consistent with fire damage.

The left rudder pushrod was separated from the aft rudder attach channel with the attach hardware installed. Aft channel was fire damaged. The pushrod was attached to the pedal mount assembly.

The right rudder pushrod was separated from the forward and aft rudder channels with the attach hardware installed. Channels were destroyed by fire.

Aileron Controls

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

The forward control stick was separated above elevator rod end connection consistent with bending overstress. The control stick socket was fire damaged and separated from the upper torque tube.

The left aileron controls were continuous from the upper torque tube to the aileron control horn. The fuselage mounted aileron idler was found separated from the fuselage consistent with bending overstress.

The right aileron controls were continuous from the upper torque tube to the aileron except for separations in the wing mounted aluminum pushrod consistent with fire damage.

Flap System

The extension of the flap actuator was found to be approximately 3.6 inches, which correlates to 30° flap extension (full flaps). The flap actuator was separated at the fuselage attach point. The jackscrew remained loosely attached at the torque tube attach point. The flap actuator gearbox was fire damaged. The flap system was found to be continuous except for a separation in the right flap control arm consistent with overstress and fire damage.

POWERPLANT:

The engine was confirmed to be a Pratt & Whitney PT6A-65AG engine, serial number PCE-PN0306.

The engine remained attached to the engine mount. The engine mount ring was fractured above the upper right engine attach point consistent with bending overstress. All engine mount tubes were bent consistent with impact damage. The fixed balance weights remained loosely attached to the engine mount with hardware attached. The engine mounted remained attached to the fuselage.



Engine and Propeller

The engine was equipped with five-bladed constant speed, fully reversible propeller. The propeller was embedded in the ground with one blade visible above the ground. Two blades exhibited bending towards the camber side, one blade remained mostly unbent, and two blades exhibited bending towards the face side. The propeller damage was reported by the propeller manufacturer to be consistent with producing thrust at impact with sudden rotational deceleration. Each of the blades was found attached to the propeller hub. The propeller hub was found attached to the reduction gearbox. The reduction gearbox was found partially separated from the engine.



Propeller

An engine and propeller examination was conducted on 10/17-19/2023 at Dawson's Aircraft in Clinton, AR. Participants included investigators from the NTSB, Hatzell Propeller Inc, and Pratt & Whitney Canada. According to the NTSB exam report, engine damage signatures were indicative that the engine was outputting power at the time of impact. Additionally, propeller damage signatures were consistent with moderate-to-high power and producing thrust and with a blade angle in the normal range of operation.

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. No modification was made 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 agricultural GPS unit that was provided to the NTSB on scene. The model and serial number of the unit were unknown due to fire damage.



Satloc GPS unit (after removal from wreckage)