



## **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Aviation Safety  
Washington, D.C. 20594

July 27-28, 2022

# **EXAMINATION SUMMARY**

**ERA22FA338**

### **A. ACCIDENT**

Location: Portland, Arkansas  
Date: July 26, 2022  
Time: 1701 CDT  
Airplanes: Air Tractor Inc. AT-802, N214RL and Air Tractor Inc. AT-802A, N749LA

### **B. INVESTIGATION PARTICIPANTS**

Ralph E. Hicks – IIC  
Senior Air Safety Investigator  
Eastern Region Aviation (ERA)  
National Transportation Safety Board  
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### **C. SUMMARY**

On July 26, 2022, about 1701 central daylight time, an Air Tractor AT-802 airplane, N214RL, and an Air Tractor AT-802A airplane, N749LA, were involved in an accident near Portland, Arkansas. The AT-802A was destroyed, and the AT-802 was substantially damaged. The pilot of the AT-802A was fatally injured, and the pilot of the AT-802 was seriously injured. Both aircraft were operated as Title 14 *Code of Federal Regulations (CFR)* Part 137 aerial application flights.

## **1.0 Wreckage Examination**

The examination of the wreckage was performed by the NTSB Investigator-in-Charge on July 27-28, 2022, at the accident site, Portland, Arkansas.

### Accident Site (General)

Both airplanes crashed into fields of actively-growing crops. The wreckage of N214RL came to rest upright in a cotton field at coordinates 33.22667, -91.47111, consistent with a near-vertical descent path to the ground. The wreckage of N749LA was highly fragmented and came to rest in a soybean field at coordinates 33.23000, -91.46805. The wreckage path of N749LA was about 300 ft in length and about 75 ft wide. The main wreckages were about 0.25 nm apart, with N214RL located southwest of N749LA.

The N749LA was equipped with a SATLOC G4 aerial guidance system and N214RL was equipped with an AgPilotX GPS system. Components from both systems were sent to the NTSB Vehicle Recorders Laboratory for download and analysis of the recorded flight data.

### N214RL

#### Fuselage

The fuselage came to rest upright on an easterly heading. The left main wheel separated from the strut and was located under the engine compartment, forward of the firewall. The left main strut remained attached to the fuselage and was partially buried in the soil. The right main gear remained attached and above the ground. The tail wheel remained in place. The lower fuselage was buckled in several places. The forward windscreen and frame were found separated from the fuselage and located about 50 ft southeast of the main wreckage; the glass was shattered. The cockpit was generally intact. The engine controls were found in intermediate positions. The fuel selector was in the MAIN tank position. The pitch trim indicator was in the green arc. The airplane was equipped with the AMSAFE Aviation Inflatable Restraint System; the shoulder harness air bags did not deploy.

#### Left Wing

The left wing remained attached to the fuselage and was compressed against the ground. The wing structure was buckled and bent along its length. The aileron and flap remained attached to the wing. The left flap was found in the retracted position. The fuel filler cap was in place and secured; there was evidence of fuel inside the wing tank. Continuity was established from the left aileron to the cockpit controls. The outboard leading edge sustained impact damage and a large portion of the leading-edge skin was missing. The leading-edge skin that remained attached to the wing had red paint transfer markings, consistent with the striping scheme on N749LA.

## Right Wing

The right wing had minimal damage when compared to the left wing. Some buckling was noted on the wing skin and aileron. The aileron and rudder remained attached to the wing. The right flap was found in the retracted position. The fuel filler caps were in place and secured; there was evidence of fuel inside the wing tanks. Continuity was established from the left aileron to the cockpit controls.

## Empennage

The vertical stabilizer remained attached to the aft fuselage and was generally undamaged. The rudder was partially separated by ground impact; it remained connected to the flight control cables and trim actuator rod. The left horizontal stabilizer and elevator were buckled upward about 2/3 out from the root. The right horizontal stabilizer and elevator were generally undamaged except for minor skin buckling. Continuity was established from the elevator and rudder to the cockpit controls.

## Engine

The engine remained attached to the engine mount and the mount was attached to the firewall. The forward area of the engine and the surrounding cowling showed evidence of postaccident fire. An external examination of the engine revealed no evidence of an inflight case breach or oil leak.

## Propeller

The five-bladed propeller was separated from the engine by ground impact forces; it was located immediately forward of the engine. The blades exhibited “s” bending, twisting, and chordwise scratching.

## N749LA

## Fuselage

The fuselage came to rest on its right side and on a northeasterly heading. The fuselage structure was bent and crushed in multiple places. The fuselage separated from the wing box and came to rest adjacent to the left wing. Both main landing gear separated during initial ground impact. The tail wheel remained attached in place. The cockpit was opened and exposed. The airplane was equipped with the AMSAFE Aviation Inflatable Restraint System; the shoulder harness air bags deployed. The hopper was separated from the fuselage and found adjacent to the cockpit area. The fuel selector was in the MAIN tank position.

## Left Wing

The left and right wings remained attached at the through spar as a single unit and separated from the fuselage. The left-wing structure was buckled and bent along its length. Leading edge crushing signatures were observed throughout the length of the left wing. The aileron remained attached to the left wing. The left flap was partially separated and found on top of the wing surface. The fuel filler cap was in place and secured; there was no evidence of fuel inside the breached wing tank. Continuity was established from the left aileron to the center wing structure.

## Right Wing

The right wing had less structural damage when compared to the left wing. Buckling damage was noted on the wing skin and aileron. The aileron remained attached to the wing. The right flap was missing and found about 50 ft south of the wing structure. The fuel filler cap was in place and secured; there was evidence of some unquantified fuel inside the wing tank. Continuity was established from the right aileron to the wing box area.

## Empennage

The left horizontal stabilizer and elevator remained attached and in place. The inboard ½ of the left elevator was crushed downward. The right horizontal stabilizer and elevator were separated and found on the ground, under the rudder. The lower rudder was torn away from the vertical stabilizer and bent to the left. The top section of the rudder was separated and found along the wreckage debris path. The vertical stabilizer was attached to the fuselage and crushed. Continuity was established from the elevator and rudder to the cockpit area.

## Engine

The engine and engine mount separated from the fuselage and were found about 15 ft northeast of the cockpit area. The engine remained attached to the engine mount. The forward section of the engine case was fractured and loose in the debris field. An external examination of the engine revealed no evidence of an inflight case breach or oil leak.

## Propeller

The five-bladed propeller was separated from the engine by ground impact forces at the second stage reduction gear; it was found adjacent to the right-wing leading edge. The blades exhibited “s” bending, twisting, and chordwise scratching. One of the blades was separated and buried in the soil near the point of initial ground impact.