



# Aviation Investigation Final Report

<b>Location:</b>	Plains, Kansas	<b>Accident Number:</b>	CEN23LA321
<b>Date &amp; Time:</b>	July 21, 2023, 11:30 Local	<b>Registration:</b>	N602AA
<b>Aircraft:</b>	AIR TRACTOR INC AT-602	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control on ground	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

Prior to flight, the pilot noted that rain had made the turf airstrip too wet to conduct aerial application flights. The middle of the airstrip had standing water, but the edges of the runway had fewer areas of water. The pilot took off at a reduced weight, without an aerial load, to fly to another location. During the takeoff, the airplane contacted the water on the runway, and the pilot lost control. The airplane subsequently veered off the runway resulting in the wing's spray booms getting entangled in high weeds. The airplane spun and came to rest. Substantial damage was sustained to the left wing and empennage.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to maintain control during takeoff from a water-contaminated runway.

## Findings

<b>Personnel issues</b>	Aircraft control - Pilot
<b>Aircraft</b>	Directional control - Not attained/maintained
<b>Environmental issues</b>	Wet surface - Effect on equipment



## Factual Information

### History of Flight

Takeoff	Loss of control on ground (Defining event)
Takeoff	Runway excursion
Takeoff	Collision during takeoff/land

### Pilot Information

Certificate:	Commercial	Age:	50,
Airplane Rating(s):	Single-engine land	Seat Occupied:	Single
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	September 15, 2022
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	February 20, 2023
Flight Time:	30948 hours (Total, all aircraft), 5240 hours (Total, this make and model), 340 hours (Last 90 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	AIR TRACTOR INC	<b>Registration:</b>	N602AA
<b>Model/Series:</b>	AT-602	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2010	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Restricted (Special)	<b>Serial Number:</b>	602-1194
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>		<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Turbo prop
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Pratt & Whitney Canada
<b>ELT:</b>		<b>Engine Model/Series:</b>	PT6A-60AG
<b>Registered Owner:</b>	DICKSON SHANNON	<b>Rated Power:</b>	1050 Horsepower
<b>Operator:</b>	DICKSON SHANNON	<b>Operating Certificate(s) Held:</b>	Agricultural aircraft (137)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	RHSG

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KLBL,2873 ft msl	<b>Distance from Accident Site:</b>	22 Nautical Miles
<b>Observation Time:</b>	11:07 Local	<b>Direction from Accident Site:</b>	235°
<b>Lowest Cloud Condition:</b>	Scattered / 1200 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 2100 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	10 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	10°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.22 inches Hg	<b>Temperature/Dew Point:</b>	0°C / 0°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Plains, KS	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Plains, KS	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	Private Airstrip 00	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	2762 ft msl	<b>Runway Surface Condition:</b>	Standing water;Wet
<b>Runway Used:</b>	35	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	3200 ft / 25 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	37.266948,-100.58374(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Aguilera, Jason
<b>Additional Participating Persons:</b>	John George; FAA FSDO; Wichita, KS
<b>Original Publish Date:</b>	November 9, 2023
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=192703">https://data.nts.gov/Docket?ProjectID=192703</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).