



Aviation Investigation Final Report

Location:	Milford, Iowa	Accident Number:	CEN18LA288
Date & Time:	July 22, 2018, 13:30 Local	Registration:	N3169H
Aircraft:	Air Tractor AT 301	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The operator reported that, during takeoff for an agricultural application flight, the airplane "quickly whipped" left almost immediately after becoming airborne. Subsequently, the airplane impacted a cornfield and then came to rest about 70 ft west of the runway.

Postaccident airframe examination did not reveal evidence of any preimpact anomalies with the flight control system that would have precluded normal operation. The pilot reported that there were no issues with the engine during the takeoff. The pilot added that he commonly used a gentle rise in the runway to assist the airplane to become airborne during takeoff; however, the investigation could not determine if this played a role in the loss of airplane control. Based on the available evidence, the investigation could not determine the reason for the pilot's loss of airplane control.

Probable Cause and Findings

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

The pilot's loss of airplane control during takeoff for reasons that could not be determined because no anomalies consistent with a flight control system malfunction were observed.

Findings

Personnel issues	Aircraft control - Pilot
Not determined	(general) - Unknown/Not determined
Aircraft	(general) - Not attained/maintained

Factual Information

History of Flight

Takeoff	Loss of control in flight (Defining event)
Takeoff	Collision with terr/obj (non-CFIT)

On July 22, 2018, about 1330 central daylight time, an Air Tractor AT-301 airplane, N3169H, was substantially damaged during an in-flight collision with terrain after takeoff from a private airstrip (2,000 ft by 50 ft, turf) near Milford, Iowa. The pilot was not injured. The airplane was registered to and operated by private individuals as a Title 14 *Code of Federal Regulations* Part 137 agricultural application flight. Day visual meteorological conditions prevailed. The flight was not operated on a flight plan. The local flight was originating from the private airstrip at the time of the accident.

The operator reported that the pilot conducted application flights earlier in the day. During the accident takeoff, the airplane "quickly whipped" to the left upon reaching about 8 ft above ground level. The airplane impacted a corn field and came to rest upright, about 70 ft west of the runway, with substantial damage to both wings and the aft fuselage.

A Federal Aviation Administration inspector conducted a postrecovery airframe examination. He reported that flight control continuity was confirmed and that no anomalies consistent with a preimpact malfunction were observed. The pilot informed the inspector that there were no issues with the engine during the accident takeoff. The pilot commented that he commonly used a gentle rise in the runway to assist the airplane to become airborne during takeoff.

The operator reported that the airplane weight at the time of the accident was about 5,840 lbs., with a maximum allowable gross weight for the operation of 7,400 lbs. The airplane chemical hopper was about one-half full at the time of the accident.

Pilot Information

Certificate:	Commercial	Age:	59,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Single
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	July 5, 2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	July 14, 2018
Flight Time:	3148 hours (Total, all aircraft), 441 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Air Tractor	Registration:	N3169H
Model/Series:	AT 301 No Series	Aircraft Category:	Airplane
Year of Manufacture:	1984	Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	301-0572
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	April 11, 2018 Annual	Certified Max Gross Wt.:	7400 lbs
Time Since Last Inspection:	53 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3315.9 Hrs as of last inspection	Engine Manufacturer:	Pratt&Whitney
ELT:	Not installed	Engine Model/Series:	R1340-AN-1
Registered Owner:		Rated Power:	600 Horsepower
Operator:	On file	Operating Certificate(s) Held:	Agricultural aircraft (137)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	SPW,1339 ft msl	Distance from Accident Site:	10 Nautical Miles
Observation Time:	13:53 Local	Direction from Accident Site:	190°
Lowest Cloud Condition:	Clear	Visibility	7 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.06 inches Hg	Temperature/Dew Point:	27°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Milford, IA (PVT)	Type of Flight Plan Filed:	None
Destination:	Milford, IA (PVT)	Type of Clearance:	None
Departure Time:	13:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	Private PVT	Runway Surface Type:	Grass/turf
Airport Elevation:	1445 ft msl	Runway Surface Condition:	Vegetation
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	2000 ft / 50 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	43.302501,-95.0625

Administrative Information

Investigator In Charge (IIC):	Sorensen, Timothy
Additional Participating Persons:	Brian Lundquist; FAA Flight Standards; Ankeny, IA
Original Publish Date:	March 18, 2019
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=97850

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