Aviation Investigation Final Report

Location:	LAKE PROVIDENCE, Louisiana	**Accident Number:**	FTW96FA228
Date & Time:	May 28, 1996, 17:10 Local	**Registration:**	N1549D
Aircraft:	Air Tractor AT-401	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Positioning		

Analysis

The airplane was returning to home base from the north, following an aerial application of rice seed in the local area. After making a low pass down the runway, the airplane circled right to a northerly heading, then it turned back south. When the airplane was approximately abeam the midpoint of the runway, it entered another right turn. According to witnesses: with the 'nose of the airplane up,' the airplane 'seemed to over bank and went straight into the ground.' Also, they reported that the engine sounded 'normal.' The airplane impacted in an open field, approximately 300 feet west of the south end of the air strip. An examination of the airplane and engine did not reveal any preimpact structural or mechanical anomalies. Witnesses reported the winds were 225 degrees at 15 knots gusting to 20. The witnesses also reported that the wind sock was 'straight out,' and that thunderstorms were located approximately 1.5 miles to the south of the accident site.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: failure of the pilot to maintain sufficient airspeed, while maneuvering (turning), which resulted in an inadvertent stall and collision with the terrain. The high gusty wind condition was a related factor.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING

Findings
1. (F) WEATHER CONDITION - HIGH WIND
2. (F) WEATHER CONDITION - GUSTS
3. MANEUVER - INITIATED - PILOT IN COMMAND
4. (C) AIRSPEED - INADEQUATE - PILOT IN COMMAND
5. (C) STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

HISTORY OF FLIGHT

On May 28, 1996, approximately 1710 central daylight time, an Air Tractor AT-401, N1549D, registered to and operated by Monticello Flying Service, as a Title 14 CFR Part 91 positioning flight, was destroyed following a loss of control while maneuvering near Lake Providence, Louisiana. Visual meteorological conditions prevailed, and a flight plan was not filed. The commercial pilot was fatally injured. The flight originated from a private air strip, about 55 minutes prior to the accident.

According to the operator, the airplane was returning to home base following an aerial application of rice seed in the local area. The airplane impacted in an open field, approximately 600 feet from the home base hangar.

Witnesses located near the accident site reported to the investigator-in-charge that they observed the airplane approach the private airstrip from the north at a low altitude. As the airplane neared the south end of the north-south runway, it turned right and headed back towards the north. After passing over highway 580, the airplane turned right and again headed towards the south. When the airplane was approximately abeam the midpoint of the runway, it turned right. With the "nose of the airplane up," the airplane "seemed to over bank and went straight into the ground." The witnesses also reported that the engine sounded "normal."

PERSONNEL INFORMATION

The commercial rated pilot had accumulated 710 hours in the accident airplane while employed by Monticello Flying Services. (See the enclosed pilot's flight logbook.)

AIRCRAFT INFORMATION

A review of the airframe and engine records by the FAA inspector did not reveal evidence of any uncorrected maintenance defects prior to the flight.

METEOROLOGICAL INFORMATION

The weather observation at 1715 for Monroe Regional Airport (MLU), located approximately 32 nautical miles west of the accident site, was an estimated ceiling of 6,000 feet broken, 8,000 feet broken; visibility 8 miles; wind from 170 degrees at 8 knots; altimeter 29.78. The temperature was 89 degrees Fahrenheit with a dew point of 77 degrees Fahrenheit. Monroe also reported that thunderstorms ended 15 minutes past the hour and had moved east. There were cumulonimbus clouds to the north, east, and south.

Witnesses reported that the wind sock was observed to be "straight out," and that thunderstorms were located approximately 1.5 miles to the south of the accident site.

WRECKAGE AND IMPACT INFORMATION

The aircraft wreckage was located 15 nautical miles southwest of Lake Providence, Louisiana. The aircraft came to rest 300 feet west of the south end of the operator's air strip in a soy bean field on a magnetic heading of 360 degrees. The initial ground scar was on a magnetic heading of 310 degree. All aircraft components and wreckage were located within a 150 foot radius from the point of impact. (See enclosed wreckage diagram for wreckage distribution details.)

The aircraft fuselage was compacted and the empennage was partially separated and displaced to the right. Both wings were still attached to the fuselage, with the right wing displaced aft. The leading edge of the right wing had multiple tears and was crushed aft. The right aileron and flap were separated from the wing. The flaps were determined to be in the retracted position. Continuity was established to all flight controls.

The engine was found partially buried in the ground and attached to its mounts. The engine was fractured in numerous places. The propeller was attached to the engine. One propeller blade was bent aft, and it exhibited S bending and chordwise scratching. The other propeller blade exhibited no damage.

Examination of the airplane and engine did not reveal any pre-impact structural or mechanical anomalies.

MEDICAL & PATHOLOGICAL INFORMATION

Autopsy and toxicology tests were requested through the East Carroll Parish Sheriff Department. However, due to a miscommunication with the medical examiner, the tests were not performed.

SURVIVAL ASPECTS

The pilot's seat bottom was deflected downward and it had contacted the elevator push pull tube. The seat belt was intact and the buckle was operable. Both the right and left shoulder harnesses were separated in the box stitching at the lower buckles. The pilot's brother indicated that they had modified the harness and had stitched the separated connections.

ADDITIONAL DATA

The aircraft was released to the owner and his representative.

Pilot Information

Certificate:	Commercial	**Age:**	39,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Front
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	September 5, 1995
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	2815 hours (Total, all aircraft), 808 hours (Total, this make and model), 2565 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Air Tractor	**Registration:**	N1549D
Model/Series:	AT-401 AT-401	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Restricted (Special)	**Serial Number:**	401-0881
Landing Gear Type:	Tailwheel	**Seats:**	1
Date/Type of Last Inspection:	January 19, 1996 Annual	**Certified Max Gross Wt.:**	7860 lbs
Time Since Last Inspection:	90 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	2648 Hrs	**Engine Manufacturer:**	P&W
ELT:		**Engine Model/Series:**	R-1340-AN1
Registered Owner:	MONTICELLO FLYING SERVICE INC.	**Rated Power:**	600 Horsepower
Operator:		**Operating Certificate(s) Held:**	
Operator Does Business As:		**Operator Designator Code:**	OYVG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Unknown	**Visibility**	5 miles
Lowest Ceiling:	Broken / 800 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	15 knots / 20 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	225°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(NONE)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	16:20 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	32.810699,-91.179946(est)

Administrative Information

Investigator In Charge (IIC):	Wigington, Douglas
Additional Participating Persons:	LAUREL W JOHNSON; BATON ROUGE , LA JIM HIRSH; OLNEY , TX STEVE RYE; PROVIDENCE , LA
Original Publish Date:	December 23, 1996
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=19641