



Aviation Investigation Final Report

Location:	Bainbridge, Georgia	Accident Number:	ATL04LA173
Date & Time:	September 3, 2004, 20:05 Local	Registration:	N3047A
Aircraft:	Air Tractor AT-401B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The pilot was returning from his last aerial application for the day. A witness saw the airplane flying north around 800 feet. Witnesses then saw the airplane descend approximately to 500 feet. Witnesses state that the airplane pitched 45-degrees nose up and then began to roll to the left until the airplane was fully inverted. From the inverted attitude, the nose of the airplane went down into a 90-degree angle, and collided with the ground. Examination of the accident site revealed the airplane and all of its components together in the middle of a cotton field. The airplane's propeller and engine were buried into the ground in a 75-degree angle. The fuselage was crushed inward. The tail was separated from the empennage. The right horizontal stabilizer and vertical stabilizers were still attached to the tail. The left stabilizer was detached from the tail. The flaps were found in the "up" position. There were no fractured bolts found. There was flight control continuity throughout the airplane.

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 adequate airspeed during an abrupt maneuver which resulted in a stall and collision with the ground.

Findings

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

Findings

1. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
 2. STALL
 3. (C) LOW ALTITUDE FLIGHT/MANEUVER - ABRUPT - PILOT IN COMMAND
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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: MANEUVERING

Findings

4. TERRAIN CONDITION - GROUND

Factual Information

HISTORY OF FLIGHT

On September 3, 2004 at 2005 eastern daylight time, an Air Tractor AT-401B, N3047A, registered to and operated by East River Flying Service LLC, collided with the ground in a cotton field after crop dusting in Bainbridge, Georgia. The aerial application flight was operated under the provision of Title 14 CFR Part 137. Visual meteorological conditions prevailed and no flight plan was filed. The airplane was substantially damaged. The pilot was fatally injured. The flight originated from a private airstrip in Bainbridge, Georgia on September 3, 2004 at 1910.

The pilot was returning from his last aerial application for the day. A witness saw the airplane flying north around 800 feet above ground level. Witnesses then saw the airplane descend approximately to 500 feet above ground level. Witnesses state that the airplane pitched 45-degrees nose up and then began to roll to the left until the airplane was fully inverted. From the inverted attitude, the nose of the airplane went down into a 90-degree angle, and collided with the ground.

PERSONNEL INFORMATION

Review of information on file with the FAA's Airmen Certification Division, Oklahoma City, Oklahoma revealed the pilot was a certificated airline transport pilot (ATP) with ratings for airplane multiengine land/ATP and airplane single engine/commercial pilot. The ATP certificate was issued on April 28, 2004. The pilot was also a certified flight instructor with ratings for airplane single engine. The flight instructor certificate was issued on May 23, 2004. The pilot held a valid second class medical certificate issued on July 6, 2004. The pilot's medical record revealed a total of 4300 civilian flight hours on file.

AIRCRAFT INFORMATION

The airplane was a fixed wing, single engine, 1997 Air Tractor AT-401B. It weighed 7860 pounds and had one seat installed. The airplane was equipped with one R1340-AN-1 reciprocating 600 horsepower engine manufactured by Pratt & Whitney. The maintenance records were reviewed and the last annual inspection was conducted on February 28, 2004. The airframe total time was 1004.5 and the overhauled Pratt & Whitney R1340-AN-1 engine was installed. Airframe and engine records were found to be compliant with all applicable Airworthiness Directives.

METEOROLOGICAL INFORMATION

The nearest weather reporting facility at the time of the accident was in Marianna, Florida approximately 30 miles west of the accident site. The 2353 Zulu weather observation from Marianna was: winds 050 degrees at 7 knots, visibility 10 statute miles, cloud condition few at 4900 feet above ground level, broken at 6000 feet above ground level, temperature 84 degrees Fahrenheit, dew point 72 degrees Fahrenheit and altimeter 29.98 inches of mercury.

WRECKAGE AND IMPACT INFORMATION

Examination of the accident site revealed the airplane and all of its components were together in the middle of a field. The airplane's propeller and engine were buried into the ground in a 75-degree angle. The fuselage was crushed inward. The tail was separated from the empennage. The right horizontal stabilizer and vertical stabilizers were still attached to the tail. The left stabilizer was detached from the tail. The flaps were found in the "up" position. There were no fractured bolts found. There was flight control continuity throughout the airplane.

MEDICAL AND PATHOLOGICAL INFORMATION

The Division of Forensic Sciences of the State of Georgia, Georgia Bureau of Investigation conducted the postmortem examination of the pilot on September 5, 2004. The reported cause of death was "blunt force trauma." The Forensic Toxicology Fatal Accident Report by the FAA's Civil Aeromedical Institute in Oklahoma City, Oklahoma, revealed no carbon monoxide, cyanide, or ethanol detected in the pilot's system. There was diphenhydramine detected in the liver and 0.034 ug/ml diphenhydramine detected in blood.

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	Age:	42, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Single
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	July 6, 2004
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	4300 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Air Tractor	Registration:	N3047A
Model/Series:	AT-401B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	401B1034
Landing Gear Type:	Tricycle	Seats:	1
Date/Type of Last Inspection:	February 1, 2004 Annual	Certified Max Gross Wt.:	7860 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1004.5 Hrs as of last inspection	Engine Manufacturer:	Pratt & Whitney
ELT:	Not installed	Engine Model/Series:	R1340-AN-1
Registered Owner:	East River Flying Service LLC	Rated Power:	600 Horsepower
Operator:	East River Flying Service LLC	Operating Certificate(s) Held:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KMAI, 110 ft msl	Distance from Accident Site:	30 Nautical Miles
Observation Time:	23:53 Local	Direction from Accident Site:	260°
Lowest Cloud Condition:	Few / 4900 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 6000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	7 knots / 0 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	50°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.97 inches Hg	Temperature/Dew Point:	29°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bainbridge, GA	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	19:10 Local	Type of Airspace:	Class G

Airport Information

Airport:	Private airstrip	Runway Surface Type:	Grass/turf
Airport Elevation:	0 ft msl	Runway Surface Condition:	Dry
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	30.971389,-84.637222

Administrative Information

Investigator In Charge (IIC): Powell, Phillip

Additional Participating Persons: Mike Costa; Atlanta FSDO

Original Publish Date: July 7, 2005

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=60110>

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](#).