



Aviation Investigation Final Report

Location:	San Angelo, Texas	Accident Number:	FTW04LA021
Date & Time:	November 12, 2003, 14:00 Local	Registration:	N1361E
Aircraft:	Air Tractor AT-301	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The 7,169-hour pilot reported that while attempting a downwind takeoff from a 2,880 feet gravel airstrip, the airplane climbed to approximately 30 feet before settling back to the ground. The pilot dumped the liquid chemical load, but the left wing struck a fence before impacting the ground. The pilot stated that he had been taking off to the south all day, but "believes the wind shifted due to an approaching weather front."

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper weather evaluation and the wrong runway selection. A contributing factor was the tailwind.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. OBJECT - FENCE
2. (C) WEATHER EVALUATION - IMPROPER - PILOT IN COMMAND
3. (C) WRONG RUNWAY - SELECTED - PILOT IN COMMAND
4. (F) WEATHER CONDITION - TAILWIND

Factual Information

On November 12, 2003, approximately 1400 central standard time, an Air Tractor AT-301 single-engine tailwheel equipped airplane, N1361E, was substantially damaged when it struck a fence and impacted the ground during a forced landing after takeoff from an airstrip near San Angelo, Texas. The non-instrument rated commercial pilot, who was the sole occupant of the airplane, was not injured. Visual meteorological conditions prevailed, and a flight plan was not filed for the 14 Code of Federal Regulations Part 137 aerial application flight. The airplane was owned and operated by the pilot. The local flight originated from the operator's private airstrip, approximately three minutes prior to the accident.

The airstrip has a north-south runway, which is 2,880 feet long and 30 feet wide. The airplane departed to the south. The 7,169-hour pilot reported to the FAA inspector, who responded to the accident site, that the airplane climbed to about 30 feet, cleared trees at the end of the runway, and then settled back toward the ground. The pilot dumped the liquid chemical load, but the left wing struck a fence before impacting the ground, which rotated the airplane 180 degrees. The pilot stated that he had been taking off to the south all day, but "believes the wind had shifted due to an approaching weather front." The airstrip does not have a wind vane.

The FAA inspector reported that the empennage was folded, and the main landing gear was separated from the fuselage.

At San Angelo Regional Airport (SJT), about 15 miles west of the accident site, the automated surface observing system reported winds as follows: at 1253, wind 270 degrees and 7 knots, at 1353, wind 350 degrees and 7 knots, and at 1453, wind 010 degrees and 7 knots.

Pilot Information

Certificate:	Commercial	Age:	40, 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—no waivers/lim.	Last FAA Medical Exam:	March 17, 2003
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	January 2, 2003
Flight Time:	7169 hours (Total, all aircraft), 3383 hours (Total, this make and model), 7169 hours (Pilot In Command, all aircraft), 120 hours (Last 90 days, all aircraft), 65 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Air Tractor	Registration:	N1361E
Model/Series:	AT-301	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	301-0205
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	November 5, 2003 100 hour	Certified Max Gross Wt.:	5000 lbs
Time Since Last Inspection:	25.2 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	7314.1 Hrs	Engine Manufacturer:	Pratt & Whitney
ELT:	Not installed	Engine Model/Series:	R-1340-AN1
Registered Owner:	On file	Rated Power:	600 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	SJT,1919 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	13:53 Local	Direction from Accident Site:	270°
Lowest Cloud Condition:	Few / 3200 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	350°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.11 inches Hg	Temperature/Dew Point:	25°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	San Angelo, TX	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	14:00 Local	Type of Airspace:	Class E

Airport Information

Airport:	Private airstrip	Runway Surface Type:	Gravel
Airport Elevation:	1300 ft msl	Runway Surface Condition:	Dry;Holes
Runway Used:		IFR Approach:	None
Runway Length/Width:	2880 ft / 30 ft	VFR Approach/Landing:	Forced landing

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:	31.357778,-100.496391

Administrative Information

Investigator In Charge (IIC):	McGill, C Frank
Additional Participating Persons:	Michael R Jordan; San Angelo, Texas; Lubbock, TX
Original Publish Date:	March 30, 2004
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=58340

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](#).