



Aviation Investigation Final Report

Location:	San Angelo, Texas	Accident Number:	FTW04LA130
Date & Time:	May 19, 2004, 06:45 Local	Registration:	N4508Y
Aircraft:	Air Tractor AT-401	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

During takeoff for an aerial application flight, the engine gradually lost power. The pilot aborted the takeoff, and the airplane veered into a soft wheat field. Examination of the airplane revealed fuel was observed at the fuel pump, the throttle and mixture linkages were intact, and engine continuity was established by rotating the propeller through by hand. Examination of the carburetor revealed the top housing flange was bent which resulted in an air leak. The cotter key was missing from the economizer stud and the stud was adjusted too a full rich setting at some time between the overhaul and the accident. The fuel inlet screen, float bowl, and inlet needle were free and clear of contaminants. The reason for the loss of engine power was not determined.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power for undetermined reasons. A contributing factor was the soft terrain encountered during the aborted takeoff.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: TAKEOFF - ABORTED

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: TAKEOFF

Findings

2. (F) TERRAIN CONDITION - SOFT

Factual Information

On May 19, 2004, approximately 0645 central daylight time, an Air Tractor AT-401 single-engine agricultural airplane, N4508Y, sustained substantial damage when it impacted terrain following a loss of engine power during takeoff from a private airstrip near San Angelo, Texas. The commercial pilot, who was the sole occupant and registered owner of the airplane, was not injured. Visual metrological conditions prevailed, and a flight plan was not filed for the 14 Code of Federal Regulations Part 137 aerial application flight. The local flight was originating at the time of the accident.

According to an FAA inspector, the pilot reported that during takeoff of the first flight of the day, the engine gradually lost power. The pilot aborted the takeoff, and the airplane veered into a soft wheat field. Examination of the airplane revealed the main landing gear was damaged, and the left wing was partially separated. Fuel was observed at the fuel pump, the throttle and mixture linkages were intact, and engine continuity was established by rotating the propeller through by hand. According to the pilot, the carburetor "recently" had been overhauled. The carburetor was removed and shipped to the overhaul repair station for further examination.

On June 16, 2004, under the supervision of an FAA inspector, the Bendix NAY9E1 carburetor, serial number 5638771, was examined and disassembled at the overhaul repair station. Examination of the carburetor revealed the top housing flange was bent which resulted in an air leak. The cotter key was missing from the economizer stud and the stud was adjusted to a full rich setting at some time between the overhaul and the accident. The fuel inlet screen, float bowl, and inlet needle were free and clear of contaminants.

The reason for the loss of engine power was not determined.

Pilot Information

Certificate:	Commercial	Age:	41, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Center
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:	March 23, 2004
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	January 2, 2003
Flight Time:	7609 hours (Total, all aircraft), 1784 hours (Total, this make and model), 60 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Air Tractor	Registration:	N4508Y
Model/Series:	AT-401	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	401-0751
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	April 15, 2004 100 hour	Certified Max Gross Wt.:	7860 lbs
Time Since Last Inspection:	34 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	5880 Hrs at time of accident	Engine Manufacturer:	Pratt & Whitney
ELT:	Not installed	Engine Model/Series:	R-1340
Registered Owner:	Rodney N. Hoelscher	Rated Power:	600 Horsepower
Operator:		Operating Certificate(s) Held:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dawn
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots / 0 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	190°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	21°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:	06:45 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	Gravel
Airport Elevation:	1700 ft msl	Runway Surface Condition:	Dry
Runway Used:	18	IFR Approach:	Unknown
Runway Length/Width:	2880 ft / 30 ft	VFR Approach/Landing:	Unknown

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	31.375,-100.455276

Administrative Information

Investigator In Charge (IIC):	Sauer, Aaron
Additional Participating Persons:	Boyd W Kempf; Federal Aviation Administration; San Antonio, TX
Original Publish Date:	January 24, 2005
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=59240

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