Aviation Investigation Final Report

Location:	MCALESTER, Oklahoma	**Accident Number:**	FTW99LA154
Date & Time:	May 28, 1999, 16:30 Local	**Registration:**	N7991Y
Aircraft:	Piper PA-30B	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

Shortly after takeoff, the airplane's left engine experienced a loss of power followed soon thereafter by a partial loss of power of the right engine. The pilot was unable to maintain altitude and made a forced landing in a field. The pilot added that he 'had to climb over power lines [and] stalled [the] aircraft.' The pilot stated that he had refueled the airplane with 90 gallons of fuel prior to his departure. He added that he had visually checked the fuel level prior to the departure; however, he did not sump the fuel tanks. Fuel samples that were taken from the airplane's left and right main fuel tanks contained a fluid on the bottom of each sample, which resembled water. A fuel sample taken from the refueling truck revealed no evidence of water contamination.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot inadvertently stalling the airplane while attempting to avoid power lines. Factors were the loss of power on both the left and right engines as a result of water contamination in the fuel system, the pilot's inadequate preflight procedures, and the lack of suitable terrain for the forced landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. 1 ENGINE
2. (F) FUEL SYSTEM,TANK - CONTAMINATION,WATER
3. (F) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND

Occurrence #2: LOSS OF ENGINE POWER(PARTIAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
4. 1 ENGINE
5. (F) FUEL SYSTEM,TANK - CONTAMINATION,WATER
6. (F) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND

Occurrence #3: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #4: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings
7. (F) TERRAIN CONDITION - NONE SUITABLE
8. MANEUVER TO AVOID OBSTRUCTIONS - PERFORMED - PILOT IN COMMAND
9. OBJECT - WIRE,TRANSMISSION
10. (C) STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #5: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Factual Information

On May 28, 1999, at 1630 central daylight time, a Piper PA-30B twin-engine airplane, N7991Y, was substantially damaged during a forced landing following a loss of engine power after takeoff from the McAlester Regional Airport near McAlester, Oklahoma. The instrument rated private pilot and his pilot rated passenger were not injured. The airplane was owned and operated by the pilot. Visual meteorological conditions prevailed and a flight plan was not filed for the 14 Code of Federal Regulations Part 91 personal flight destined for Oklahoma City, Oklahoma. The cross-country flight was originating at the time of the accident.

During a telephone interview conducted by the NTSB investigator-in-charge, the pilot stated that shortly after takeoff, while climbing through 300 feet agl, the left engine "quit." The pilot added that after attempting to restart the engine, he elected to feather the propeller. Shortly after feathering the left propeller, the right engine started to "sputter." The pilot stated that the right engine never completely failed; however, he was unable to maintain altitude with the sputtering right engine and elected to land the airplane, with the landing gear retracted, in a field approximately 2 miles south of the McAlester Airport. In the enclosed Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2), the pilot stated that he "had to climb over power lines [and] stalled [the] aircraft."

The pilot reported that the left wing spar, outboard of the engine, was broken. The right wing spar, outboard of the engine, was bent aft, and the empennage was separated except for a section of sheet metal attaching it to the airplane.

The pilot reported that he had refueled the airplane with 90 gallons of fuel prior to his departure. The pilot stated that he had visually checked the fuel level prior to the departure; however, he did not sump the fuel tanks. He added that the flight to McAlester earlier that day had been uneventful and that there were no problems with either engine.

During the recovery process, fuel samples were taken from the airplane's left and right main fuel tanks. A half-gallon of fuel was drained from each tank into two separate 1-gallon containers. The bottom half of the sample taken from the left main fuel tank appeared clear in color and resembled water. The bottom 1/8th of the half-gallon fuel sample taken from the right main fuel tank appeared clear in color and also resembled water. The remaining fluid in both samples was blue in color and resembled 100LL aviation fuel.

The FAA inspector, who responded to the accident site, stated that he examined fuel samples taken from the fixed base operator's fueling truck, from which the accident airplane was refueled, and found no evidence of water contamination.

Pilot Information

Certificate:	Private	**Age:**	57,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	October 9, 1998
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	717 hours (Total, all aircraft), 450 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N7991Y
Model/Series:	PA-30B PA-30B	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	30-1095
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	December 1, 1998 Annual	**Certified Max Gross Wt.:**	3600 lbs
Time Since Last Inspection:		**Engines:**	2 Reciprocating
Airframe Total Time:	4495 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Installed, activated	**Engine Model/Series:**	IO-320-B1A
Registered Owner:	S & F INC.	**Rated Power:**	160 Horsepower
Operator:	FREDDIE W. CHAMBERS	**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	MLC ,770 ft msl	**Distance from Accident Site:**	2 Nautical Miles
Observation Time:	15:53 Local	**Direction from Accident Site:**	180°
Lowest Cloud Condition:	Scattered / 9000 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	70°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	26°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(MLC)	**Type of Flight Plan Filed:**	None
Destination:	OKLAHOMA CITY , OK (OKC)	**Type of Clearance:**	None
Departure Time:	16:30 Local	**Type of Airspace:**	Class E

Airport Information

Airport:	MCALESTER REGIONAL MLC	**Runway Surface Type:**	
Airport Elevation:	770 ft msl	**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 None	**Latitude, Longitude:**	34.920078,-95.760696(est)

Administrative Information

Investigator In Charge (IIC):	Lupino, Nicole
Additional Participating Persons:	RONALD C EVANS; OKLAHOMA CITY , OK
Original Publish Date:	November 30, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=46424