



Aviation Investigation Final Report

Location:	Shelbyville, Indiana	Accident Number:	CEN09LA211
Date & Time:	March 13, 2009, 14:30 Local	Registration:	N338WS
Aircraft:	Piper PA-23-160	Aircraft Damage:	Substantial
Defining Event:	Fuel contamination	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Ferry		

Analysis

The airplane had not been flown for four years. It was on the second leg of a ferry flight when the left engine failed. The pilot made a forced landing to a plowed field, during which the wings and bottom fuselage sustained substantial damage. Prior to the accident flight, the pilot told the airport manager that he could not get all of the water out of the fuel system and that he was sure that more water would be found during sumping, due to sloshing during the flight from the previous airport. The pilot stated that no contamination was found during the preflight. An examination of the airplane showed water in the fuel. No other anomalies were found with the airplane.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power during cruise flight due to fuel contamination. Also causal was the pilot's decision to conduct the flight with known contaminants in the fuel.

Findings

Aircraft	Fuel - Fluid condition
Personnel issues	Decision making/judgment - Pilot

Factual Information

History of Flight

Enroute	Fuel contamination (Defining event)
Enroute	Loss of engine power (partial)
Emergency descent	Off-field or emergency landing

On March 13, 2009, about 1430 eastern daylight time, a Piper PA-23-160, N338WS, owned by Wings of Hope, sustained substantial damage during a forced landing to a plowed field following a loss of left engine power while in cruise flight near Shelbyville, Indiana. The commercial pilot, the sole person on board the airplane, reported no injuries. Visual meteorological conditions prevailed at the time of the accident. No flight plan was on file for the Title 14 Code of Federal Regulations Part 91 ferry flight. The flight departed the Shelbyville Municipal Airport (GEZ), Shelbyville, Indiana, about 1415, and was destined for the Spirit of St Louis Airport, Chesterfield, Missouri.

The airplane was purchased by Wings of Hope and was inspected in Columbus, Ohio, in accordance with the requirements of a 100-hour inspection. The airplane was flown from Columbus to GEZ. The GEZ airport manager topped off the main tanks with 100 low lead aviation gasoline. The pilot reportedly had said to the GEZ airport manager that the airplane had not been flown for four years and that this was its ferry flight. According to the manager, the pilot said that he could not get all of the water out of the fuel system, and that he was sure that more water would be found during sumping, due to sloshing during the flight from Columbus. The pilot stated that no contamination was found during the preflight. The pilot departed from GEZ and said that he encountered the loss of left engine power during the climb at about 4,000 feet above mean sea level. The pilot reported that he turned on the auxiliary pumps and changed fuel tanks. He was not able to restart the engine or feather propeller. During the wheels up landing the airplane's wings and fuselage were substantially damaged.

An examination of the airplane showed water in the fuel. No other anomalies were found with the airplane.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	71, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	May 14, 2007
Occupational Pilot:	No	Last Flight Review or Equivalent:	March 6, 2009
Flight Time:	3608 hours (Total, all aircraft), 3511 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N338WS
Model/Series:	PA-23-160	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	23-1341
Landing Gear Type:	Retractable - Tricycle	Seats:	5
Date/Type of Last Inspection:	March 12, 2009 100 hour	Certified Max Gross Wt.:	3800 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:	4850 Hrs at time of accident	Engine Manufacturer:	LYCOMING
ELT:	C91 installed, not activated	Engine Model/Series:	O-320 SERIES
Registered Owner:	Wings of Hope	Rated Power:	160 Horsepower
Operator:	Delbert Reiff	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	GEZ,803 ft msl	Distance from Accident Site:	10 Nautical Miles
Observation Time:	13:53 Local	Direction from Accident Site:	135°
Lowest Cloud Condition:	Clear	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:	4°C / -8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	IN (GEZ)	Type of Flight Plan Filed:	None
Destination:	Chesterfield, MO (SUS)	Type of Clearance:	None
Departure Time:	14:15 Local	Type of Airspace:	

Airport Information

Airport:	Shelbyville Municipal Airport GEZ	Runway Surface Type:	
Airport Elevation:	803 ft msl	Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		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:	39.583057,-85.804725(est)

Administrative Information

Investigator In Charge (IIC):	Malinowski, Edward
Additional Participating Persons:	Ken Howe; Federal Aviation Administration; Indianapolis, IN
Original Publish Date:	November 9, 2009
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=73496

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