



Aviation Investigation Final Report

Location:	Wilkeson, Washington	Accident Number:	WPR11LA369
Date & Time:	August 4, 2011, 08:30 Local	Registration:	N2199N
Aircraft:	Cessna 140	Aircraft Damage:	Substantial
Defining Event:	Fuel contamination	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that he had washed the airplane the day prior to the accident. On the day of the accident he determined during the preflight inspection that the fuel and induction systems were not contaminated with water. The engine run-up was uneventful; however, when the airplane was about halfway down the runway during takeoff, the engine began to sputter. The pilot verified the positions of the fuel selector handle and carburetor heat control and pumped the throttle, which sustained engine power momentarily. The airplane could not sustain flight and the pilot subsequently force-landed it in nearby trees. During the postaccident engine inspection, no operational anomalies were noted. The pilot further reported that on previous occasions after washing the airplane the engine experienced similar instances of momentary power loss. It is likely that, although the pilot conducted an extensive preflight inspection, undetected water contamination in the fuel system resulted in a reduction of power during takeoff.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A partial loss of engine power during takeoff due to water contamination in the fuel system.

Findings

Aircraft	(general) - Not specified
Aircraft	Fuel - Fluid condition

Factual Information

History of Flight

Takeoff	Fuel contamination (Defining event)
Takeoff	Loss of engine power (partial)
Emergency descent	Off-field or emergency landing
Landing	Collision with terr/obj (non-CFIT)

On August 4, 2011, at 0830 Pacific daylight time, a Cessna 140, N2199N, collided with trees during a forced landing near Wilkeson, Washington. The airplane sustained substantial damage. The private pilot and one passenger were not injured. The pilot, who was also the registered owner of the airplane, was operating it under the provisions of Title 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed and no flight plan was filed for the local area flight.

The pilot reported in a written statement that he had washed the airplane the day before the accident. Prior to the accident flight, he did an extensive preflight and verified no water was in the fuel. He also verified that the scot tubing was free of moisture. The run up was uneventful and during takeoff, he brought the throttle to takeoff power and released the brakes. The pilot stated that about halfway down the runway, the engine began to lose power and sputter. He verified the fuel selector and carburetor heat positions and then began pumping the throttle. He was unable to sustain engine power and force-landed the airplane into trees.

The pilot reported during a phone conversation following the accident, that when he had washed the airplane on prior occasions, the airplane had experienced momentary power interruptions which he had attributed to residual water.

During the post accident inspection, a Federal Aviation Administration accident coordinator test ran the engine using the airframe fuel system, fuel, and controls. The engine was test run from idle to 2,200 revolutions per minute with no operational anomalies.

Pilot Information

Certificate:	Private	Age:	63, Male
Airplane Rating(s):	Single-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 Without waivers/limitations	Last FAA Medical Exam:	April 1, 2010
Occupational Pilot:	No	Last Flight Review or Equivalent:	June 15, 2011
Flight Time:	917 hours (Total, all aircraft), 189 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N2199N
Model/Series:	140	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	12435
Landing Gear Type:		Seats:	2
Date/Type of Last Inspection:	April 1, 2011 Annual	Certified Max Gross Wt.:	1450 lbs
Time Since Last Inspection:	5 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	5793 Hrs as of last inspection	Engine Manufacturer:	Continental Motors, Inc.
ELT:	C91 installed, not activated	Engine Model/Series:	O-200A
Registered Owner:	John Simon	Rated Power:	100 Horsepower
Operator:	John Simon	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KPLU,538 ft msl	Distance from Accident Site:	10 Nautical Miles
Observation Time:	08:35 Local	Direction from Accident Site:	270°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.02 inches Hg	Temperature/Dew Point:	17°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Wilkeson, WA (WN15)	Type of Flight Plan Filed:	None
Destination:	Wilkeson, WA (WN15)	Type of Clearance:	None
Departure Time:	08:20 Local	Type of Airspace:	

Airport Information

Airport:	Burnett Landing Airport WN15	Runway Surface Type:	Grass/turf;Gravel
Airport Elevation:	800 ft msl	Runway Surface Condition:	Dry
Runway Used:	13	IFR Approach:	None
Runway Length/Width:	2500 ft / 110 ft	VFR Approach/Landing:	None

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:	47.129444,-122.055831(est)

Administrative Information

Investigator In Charge (IIC):	Dunks, Kristi
Additional Participating Persons:	Patrick Paden; Federal Aviation Administration; Renton, WA
Original Publish Date:	November 29, 2011
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=81391

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