



National Transportation Safety Board Aviation Accident Final Report

Location:	Great Bend, KS	Accident Number:	CEN14FA288
Date & Time:	06/08/2014, 1130 CDT	Registration:	N567CM
Aircraft:	SCHRIEBER ROBERT L P 70	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The private pilot was conducting a local personal flight. An employee of the fixed-based operator reported that, before takeoff, the pilot topped off the airplane's 18-gallon fuel tank. A witness reported hearing the airplane approach his residence from the north about 2 hours later. The witness said he saw the airplane come out of a cloud bank and that it looked like it was trying to climb at a 45-degree angle. He subsequently saw it in a 45-degree, nose-down pitch angle descending toward the ground. The airplane impacted in a corn field located 6 miles north of pilot's home airport. The witness said the engine sounded "weak as if it had no power" and that, as the airplane was descending, the pilot "was trying to pull up."

An examination of the airplane at the accident site showed that the airplane impacted the ground in a nose-down, steep descent. Flight control continuity was confirmed. Both of the propeller blades were broken at the hub and showed no signs of driving power. An examination of the engine revealed no anomalies that would have prevented it from producing power.

The airplane's fuel tank could hold 18.06 gallons of fuel. The engine manufacturer estimated that the engine's fuel consumption rate at a normal power setting was between 10.5 and 11 gallons per hour; therefore, the airplane would have been able to fly for 1 hour 42 minutes. It is likely that the pilot did not properly plan for the flight, which was longer than allowed by the airplane's total fuel quantity and resulted in loss of engine power due to fuel exhaustion. During the subsequent forced landing to the field, the pilot lost airplane control.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper preflight planning, which led to a loss of engine power due to fuel exhaustion. Contributing to the accident was the pilot's loss of airplane control during the forced landing.

Findings

Aircraft	Fuel system - Incorrect use/operation (Cause) Engine (reciprocating) - Failure (Cause)
Personnel issues	Decision making/judgment - Pilot (Cause) Aircraft control - Pilot (Factor)

Factual Information

HISTORY OF FLIGHT

On June 8, 2014, about 1130 central daylight time, a Robert L. Schrieber P70 Acey Deucy experimental amateur-built airplane, N567CM, owned and operated by Brining Air LLC and being flown by a private pilot, impacted terrain near Great Bend, Kansas. The private pilot and passenger on board sustained fatal injuries and the airplane was substantially damaged. The local, personal flight was being conducted without a flight plan under the provisions of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed in the vicinity of the accident. The flight originated at the Great Bend Municipal Airport (GBD), Great Bend, Kansas about 0930.

A line worker for the Fixed Base Operator (FBO) on the airport said she received a call from the pilot at 0846 requesting fuel for the airplane. She drove the fuel truck to the pilot's hangar and put in 4.7 gallons of fuel, which topped the tank. She said the pilot was in a "cheery, joking" mood. She didn't ask where the pilot was going as the ceiling was 800 feet and she didn't think he would be going very far. Later, at the FBO, the line worker received a radio call from the pilot asking to put him on the maintenance list to change his right tire, that as he was taxiing out he noticed he had a small area of chords showing. She told him they had the tire in stock and would put him on the list. He then made a departure call over the radio frequency that he was departing GBD.

According to the pilot's family, the pilot sent a text message at 1004 stating that he and the passenger had arrived in Lucas, Kansas, about 46 nm north-northeast of GBD. The pilot's wife received another text message at 1013 stating the pilot wanted to meet for lunch after church. At 1223, she texted the pilot about their meeting for lunch and received no response.

A witness reported about 1130 hearing an airplane north of him. He stepped out of the shed he was cleaning at the time and saw the airplane about a mile to his east flying at 200 to 300 ft above the ground. It had come out of a cloud bank and looked as if the airplane was trying to climb at a 45 degree angle. The witness said he thought nothing of it and went back to work. As he heard the airplane get closer to his house, he went out to see it fly over. As he looked for the airplane, he saw it in a 45-degree nose down pitch angle descending and impacting the ground. He immediately called 9-1-1. The witness said the engine sounded "weak as if it had no power" and that as the airplane was descending the pilot "was trying to pull up."

PERSONNEL INFORMATION

The pilot, age 49, held a private pilot certificate with an airplane single-engine land and instrument airplane ratings. According to the pilot's flight logs he had 1,528 total flying hours and 153 hours in the accident airplane. He had flown 30 hours in the 90 days preceding the accident; 22 of those hours being flown in the 30 days prior to the accident.

The pilot held a valid second-class medical certificate dated October 11, 2012. The certificate showed the limitation, Must wear corrective lenses.

The pilot successfully completed a flight review on February 4, 2013.

AIRCRAFT INFORMATION

The amateur-built, tandem two-place, high wing, single-engine airplane, serial number 045,

was originally certificated in the experimental category by the original owner in 1997. It was registered to the owner on June 8, 2010.

The airplane was powered by one Lycoming O-290-G carbureted; 4-cylinder horizontally opposed reciprocating engine, rated at 125 horsepower at 2,450 rpm. According to the manufacturer, the estimated fuel consumption of the engine at a normal cruise power setting was between 10.5 to 11 gallons per hour.

A review of the available engine logbooks showed the airplane had completed an annual condition inspection on May 2, 2009. The tachometer time at the inspection was 392.8 hours. Other logbooks that might have contained the airplane's most recent condition inspection were not located.

The tachometer time on the airplane at the accident site was 492.64 hours.

METEOROLOGICAL INFORMATION

At 1135, the automated weather observation facility at GBD, located 6 miles south from the accident location, reported wind from 120 degrees at 8 knots, overcast clouds at 1,200 ft, visibility 9 miles, temperature 64 degrees Fahrenheit (F), dew point 57 degrees F, and altimeter 30.06 inches of mercury.

WRECKAGE AND IMPACT INFORMATION

The airplane impacted in a windrowed corn stubble field about 6 miles north of the GBD. The accident site began with a 16-inch deep impact scar. Impressions in the ground that emanated out from the deepest part of the impact scar corresponded to impacts from the airplane's top wing and main landing gear. Pieces of the airplane's wing, cowling, and forward fuselage were located in the impact scar. Airplane pieces spanned outward from the impact scar about 122 feet to the airplane main wreckage.

The airplane main wreckage consisted of the top wing, the tandem cockpit area, main landing gear, engine, propeller, aft fuselage, empennage, and tailwheel. The airplane rested upright and was oriented 160 degrees from the initial impact scar. The top wing was broken at the wing struts and crushed aft. The ailerons remained attached. The cowling and cockpit area were broken downward and aft. The main landing gear were bent and broken aft. The engine was broken downward and aft. A fuel tank behind the engine was crushed and broken. No physical signs or smell of fuel were present. Both blades of the two-bladed wood propeller were broken aft and showed no signs of rotational rubs or scratches. The front and rear seat windscreens were broken out and fragmented. The fuselage aft of the rear cockpit seat, empennage, and tailwheel were intact.

Flight control continuity was confirmed. The engine and fuel tank were retained for further examination.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot on June 8, 2014, by the Barton County, Kansas Coroner, at Hays, Kansas.

The FAA's Civil Aerospace Medical Institute performed forensic toxicology on specimens from the pilot. The results were negative for all tests conducted.

TESTS AND RESEARCH

An examination of the engine revealed no anomalies that would have prevented the engine from producing power. A reconstruction of the metal fuel tank confirmed airplane drawings that showed the fuel tank's volume as 4,172 cubic inches, therefore capable of holding 18.06 gallons of fuel. Based on the engine's fuel consumption rate of 10.5 gallons per hour, the airplane would have been able to fly for 1 hour and 42 minutes.

History of Flight

Maneuvering	Collision with terr/obj (non-CFIT) Loss of control in flight (Defining event)
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Pilot Information

Certificate:	Private	Age:	49, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 With Waivers/Limitations	Last FAA Medical Exam:	10/11/2012
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 1528 hours (Total, all aircraft), 153 hours (Total, this make and model), 1429 hours (Pilot In Command, all aircraft), 30 hours (Last 90 days, all aircraft), 22 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	SCHRIEBER ROBERT L	Registration:	N567CM
Model/Series:	P 70 NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	045
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	1500 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	492.64 Hours at time of accident	Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	O-290G
Registered Owner:	On file	Rated Power:	125 hp
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	GBD	Distance from Accident Site:	6 Nautical Miles
Observation Time:	1135 CDT	Direction from Accident Site:	180°
Lowest Cloud Condition:		Visibility	9 Miles
Lowest Ceiling:	Overcast / 1200 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.06 inches Hg	Temperature/Dew Point:	18° C / 14° C
Precipitation and Obscuration:			
Departure Point:	Great Bend, KS	Type of Flight Plan Filed:	None
Destination:	Great Bend, KS	Type of Clearance:	None
Departure Time:	CDT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	38.468889, -98.835000 (est)

Administrative Information

Investigator In Charge (IIC):	Alexander Lemishko	Report Date:	08/16/2016
Additional Participating Persons:	Richard Terrell; Federal Aviation Administration; Wichita, KS		
Publish Date:	08/16/2016		
Note:	The NTSB traveled to the scene of this accident.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=89440		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).