



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Crewe, Virginia	Accident Number:	GAA18CA574
Date & Time:	September 29, 2018, 15:30 Local	Registration:	N6148P
Aircraft:	Piper PA24	Aircraft Damage:	Substantial
Defining Event:	Aerodynamic stall/spin	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, after a cross-country flight, he wanted to fuel the airplane at the airport, but the fuel tanks were locked. He then flew to a nearby airport to fuel the airplane, but once over the airport, he was told via the UNICOM frequency that the airport was closed for construction and that he would not be able to land.

He returned to the departure airport, and as he reduced power and performed his "gump" check, the engine lost total power. He switched from the left fuel tank to the right fuel tank, turned the fuel pump on, and pumped the throttle to no avail. He continued downwind and abeam the runway numbers and added flaps. On base, he felt the airplane was low and decided to head straight for the runway. Near the beginning of the runway, the airplane aerodynamically stalled and landed hard. The airplane slid about 300 ft and came to rest in the grass adjacent the runway.

The airplane sustained substantial damage to the left wing.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

The Federal Aviation Administration inspector reported that he verified that the left fuel tank was completely empty. He also removed the drain plug from the carburetor, which was also empty. Additionally, the insurance adjuster reported that he looked into the fuel tanks with a scope and saw that the left fuel tank was "bone dry" and that the right tank had about 12 gallons of fuel.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to maintain adequate airspeed and his exceedance of the airplane's critical angle of attack, which resulted in an aerodynamic stall. Contributing to the accident was the pilot's improper fuel management, which resulted in fuel starvation and the subsequent total loss of engine power.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Airspeed - Not attained/maintained
Aircraft	Angle of attack - Capability exceeded
Aircraft	Fuel - Fluid management
Personnel issues	Use of equip/system - Pilot

Factual Information

History of Flight

Approach	Fuel starvation
Approach	Loss of engine power (total)
Approach	Attempted remediation/recovery
Landing	Aerodynamic stall/spin (Defining event)
Landing	Hard landing
Landing	Runway excursion

Pilot Information

Certificate:	Private	Age:	51,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	August 21, 2017
Occupational Pilot:	No	Last Flight Review or Equivalent:	November 2, 2017
Flight Time:	(Estimated) 448 hours (Total, all aircraft), 157 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N6148P
Model/Series:	PA24 250	Aircraft Category:	Airplane
Year of Manufacture:	1959	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	24-1249
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	May 21, 2018 Annual	Certified Max Gross Wt.:	2800 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Installed, activated	Engine Model/Series:	O-540 SERIES
Registered Owner:		Rated Power:	250 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KBKT, 440 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	19:35 Local	Direction from Accident Site:	130°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.25 inches Hg	Temperature/Dew Point:	26°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Crewe, VA (W81)	Type of Flight Plan Filed:	None
Destination:	Crewe, VA (W81)	Type of Clearance:	None
Departure Time:	15:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	CREWE MUNI W81	Runway Surface Type:	Asphalt
Airport Elevation:	422 ft msl	Runway Surface Condition:	Dry
Runway Used:	33	IFR Approach:	None
Runway Length/Width:	3300 ft / 60 ft	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:	37.183612,-78.101943(est)

Administrative Information

Investigator In Charge (IIC):	Benhoff, Kathryn
Additional Participating Persons:	Jay Venable; FAA; Richmond, VA
Original Publish Date:	April 8, 2019
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=98393

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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](#).