



Aviation Investigation Final Report

Location:	New Market, Virginia	Accident Number:	ERA19LA033
Date & Time:	October 25, 2018, 09:15 Local	Registration:	N68DW
Aircraft:	Piper PA28	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (partial)	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private pilot stated that, shortly after takeoff for the cross-country, personal flight, the engine suddenly lost partial power. Subsequently, he made a forced landing to a corn field, during which the left main landing gear penetrated the left wing and separated from the airplane, the nose landing gear collapsed, and the firewall and engine mount sustained substantial damage.

Postaccident examination of the engine did not reveal evidence of any preaccident mechanical malfunctions or failures that would have precluded normal operation. The carburetor exhibited no external damage; however, when the air box and alternate air control were removed, a dead mouse fell out of the intake manifold.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of engine power on takeoff due to restricted air flow to the engine.

Findings

Aircraft	Air intake - Not specified
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Factual Information

History of Flight

Initial climb	Loss of engine power (partial) (Defining event)
Landing	Off-field or emergency landing
Landing	Part(s) separation from AC
Landing	Landing gear collapse

On October 25, 2018, at 0915 eastern daylight time, a Piper PA-28-181, N68WD, was substantially damaged when it made a forced landing to a field after a partial loss of engine power shortly after takeoff from the New Market Airport (8W2), New Market, Virginia. The private pilot was not injured. The airplane was registered to a private company and operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight. Visual meteorological conditions prevailed, and no flight plan was filed for the flight that departed at 0850 and was destined for the Luray Caverns Airport (LUA), Luray, Virginia.

The pilot stated that shortly after takeoff, the engine suddenly went to idle power. He was unable to maintain altitude and landed short in a cornfield. Upon landing, the left main landing gear penetrated thru the left wing and separated from the airplane. The nose landing gear collapsed, and the firewall and an engine mount were substantially damaged.

A Federal Aviation Administration (FAA) inspector performed a postaccident examination of the engine. The propeller was manually rotated, and compression and valve train continuity were established on each cylinder. Throttle and mixture cable continuity was established to the carburetor, but the mixture cable was jammed in place from impact damage. The throttle was not impinged and when moved, the accelerator pump moved and pumped fuel. Examination of the carburetor revealed no external damage; however, when the air box and alternate air control was removed a dead mouse fell out the intake manifold onto the ground.

The pilot held a private pilot certificate with a rating for airplane single engine land and instrument airplane. His last FAA Third class medical was issued in September 2016. The pilot reported a total of 470 flight hours.

Weather reported at Front Royal Warrenton County Airport (FRR), Front Royal, Virginia at 0935 was reported as calm wind, visibility 10 miles and clear skies.

Pilot Information

Certificate:	Private	Age:	72,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
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:	November 20, 2017
Occupational Pilot:	No	Last Flight Review or Equivalent:	September 30, 2016
Flight Time:	470 hours (Total, all aircraft), 400 hours (Total, this make and model), 410 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N68DW
Model/Series:	PA28 181	Aircraft Category:	Airplane
Year of Manufacture:	1977	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	28-7890006
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	November 15, 2017 Annual	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4100.88 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O&VO-360 SER
Registered Owner:		Rated Power:	180 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:	FRR,703 ft msl	Distance from Accident Site:	26 Nautical Miles
Observation Time:	09:35 Local	Direction from Accident Site:	45°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:		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:	5°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	New Market, VA (8W2)	Type of Flight Plan Filed:	None
Destination:	Luray, VA (LUA)	Type of Clearance:	None
Departure Time:	08:50 Local	Type of Airspace:	Class G

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:	38.654998,-78.668334(est)

Administrative Information

Investigator In Charge (IIC):	Read, Leah
Additional Participating Persons:	John Treehan; FAA/FSDO; Dulles, VA
Original Publish Date:	April 20, 2020
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=98569

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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](#).