



# Aviation Investigation Final Report

<b>Location:</b>	Butler, Kentucky	<b>Accident Number:</b>	GAA18CA307
<b>Date &amp; Time:</b>	May 27, 2018, 18:18 Local	<b>Registration:</b>	N95410
<b>Aircraft:</b>	Piper PA28	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Fuel starvation	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that, while en route, the airplane's engine began to run roughly and lose power. He immediately turned toward the nearest airport and slowed the airplane to 100 knots. He added that he pushed the mixture to full rich, which caused a short burst of power that lasted just a few seconds. He then pumped the throttle and applied carburetor heat but then realized he did not have enough altitude to make the airport and began to look for an alternate landing site.

The pilot further added that, after locating a ridgetop field, he slowed the airplane to 75 knots and pulled one notch of flaps and trimmed for landing. As he lined the airplane up with the field, he pulled full flaps about 300 ft above the ground. The touchdown was smooth, and the airplane continued the landing roll in 3-ft-tall wheat. Subsequently, the right wing struck an industrial irrigation nozzle, and the right wing separated from the fuselage.

The airplane sustained substantial damage to the right wing and stabilator.

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

The pilot added that, during the engine failure, he did not attempt to change the fuel tank from the empty right wing fuel tank and recommended to make the fuel selector check the first part of the restart procedure.

The Federal Aviation Administration inspector reported that, while on scene, he was able to run the engine. He added that the left tank was about 1/2 full of fuel. He switched the fuel selector to the left tank and started the engine normally. The oil pressure was fine; the fuel pressure was normal on both the electric pump and engine-driven pump; and the magnetos checked fine.

## Probable Cause and Findings

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

The pilot's improper fuel management, which resulted in fuel starvation.

### Findings

<b>Aircraft</b>	Fuel - Fluid management
<b>Personnel issues</b>	Use of equip/system - Pilot
<b>Aircraft</b>	Fuel selector/shutoff valve - Not used/operated
<b>Environmental issues</b>	Ground equipment - Contributed to outcome

## Factual Information

### History of Flight

Enroute	Fuel starvation (Defining event)
Enroute	Loss of engine power (partial)
Enroute	Attempted remediation/recovery
Enroute	Off-field or emergency landing
Enroute	Collision with terr/obj (non-CFIT)
Landing	Part(s) separation from AC

### Pilot Information

Certificate:	Private	Age:	70,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:	BasicMed Without waivers/limitations	Last FAA Medical Exam:	September 5, 2017
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 16, 2017
Flight Time:	(Estimated) 552 hours (Total, all aircraft), 259 hours (Total, this make and model), 442 hours (Pilot In Command, all aircraft), 30 hours (Last 90 days, all aircraft), 22 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N95410
<b>Model/Series:</b>	PA28 140	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1969	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal; Utility	<b>Serial Number:</b>	28-25930
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	September 25, 2017 Annual	<b>Certified Max Gross Wt.:</b>	2150 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3885 Hrs as of last inspection	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-320-E2A
<b>Registered Owner:</b>		<b>Rated Power:</b>	150 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KLUK, 490 ft msl	<b>Distance from Accident Site:</b>	22 Nautical Miles
<b>Observation Time:</b>	22:53 Local	<b>Direction from Accident Site:</b>	357°
<b>Lowest Cloud Condition:</b>	Few / 12000 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	29.88 inches Hg	<b>Temperature/Dew Point:</b>	28°C / 24°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Kennett, MO (TKX )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Columbus, OH (TZR )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	13:05 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	38.728889,-84.394996(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Swenson, Eric
<b>Additional Participating Persons:</b>	Charles Holsclaw; FAA; Louisville, KY
<b>Original Publish Date:</b>	November 5, 2018
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=97346">https://data.nts.gov/Docket?ProjectID=97346</a>

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