



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

# Aviation Investigation Final Report

<b>Location:</b>	Mount Gilead, Ohio	<b>Accident Number:</b>	ERA23LA306
<b>Date &amp; Time:</b>	July 21, 2023, 15:10 Local	<b>Registration:</b>	N9519C
<b>Aircraft:</b>	Piper PA-32RT-300	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Fuel starvation	<b>Injuries:</b>	2 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that he was about 30 minutes from his destination when the engine lost total power. He conducted the emergency procedures for an engine power loss, notified air traffic control, and looked for an opening in the clouds. He was unable to glide to a suitable airport, so he performed a forced landing into a soybean field with the landing gear retracted. The airplane came to rest in the field; however, substantial damage to the fuselage and right wing resulted. An examination of the wreckage after the accident did not reveal evidence of a malfunction or anomaly that would have prevented normal operation of the airplane and engine. The left wing fuel tank was dry when examined after the accident, and the right wing contained about 25 gallons of fuel. The pilot later reported that he exhausted the fuel supply from the left tank and failed to switch to the right tank after the loss of engine power.

## 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 by not switching fuel tanks in flight, resulting in fuel starvation to the engine and a total loss of engine power.

## Findings

<b>Aircraft</b>	Fuel - Fluid management
<b>Personnel issues</b>	Use of equip/system - Pilot

# Factual Information

## History of Flight

Enroute-cruise	Fuel starvation (Defining event)
Emergency descent	Off-field or emergency landing

On July 21, 2023, about 1510 eastern daylight time, a Piper PA-32RT-300 airplane, N9519C, was substantially damaged when it was involved in an accident near Mount Gilead, Ohio. The private pilot and one passenger sustained minor injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that he was in instrument meteorological conditions, about 30 minutes from his destination, when the airplane sustained a total loss of engine power. He conducted the emergency procedures for a power loss, notified air traffic control, and looked for an opening in the clouds. The controller provided vectors to the nearest suitable airport, Morrow County Airport (4I9), in Mount Gilead. The pilot acquired runway 28 visually; however, the airplane was unable to glide to the runway. He prepared for a 10°-flaps, gear-retracted landing in a soybean field. After touchdown, the airplane came to rest upright and the pilot and his passenger were met by first responders.

An inspector with the Federal Aviation Administration responded to the accident site and examined the wreckage. The right wing and fuselage sustained substantial damage.

The wreckage was recovered to a salvage facility where it was examined by the NTSB investigator-in-charge. The fuel tanks were intact and uncompromised. The left fuel tank was empty and the electronic cockpit fuel gauge also indicated zero fuel. The right wing fuel tank contained about 25 gallons of fuel and the cockpit gauge registered about 25 gallons. Compressed air was blown through the fuel lines and the selector operated in a normal manner with no contamination noted.

The fuel strainer, located under the fuselage, contained residual fuel and was free of contaminants. The engine-driven fuel pump operated normally and contained residual fuel.

Internal engine continuity was verified by rotating the propeller manually. Compression and suction were observed on all cylinders and valve action was correct. The dual magneto produced spark on all leads when rotated manually. The top spark plug electrodes were normal in color and wear when compared to a Champion Check-A-Plug chart.

No evidence of a mechanical malfunction or anomaly that would have prevented normal operation of the engine or airframe was found.

In a subsequent interview with the pilot, he stated that he exhausted the fuel supply in the left tank and failed to switch to the right tank after the loss of engine power.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	64, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 3 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	July 29, 2021
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	August 27, 2022
<b>Flight Time:</b>	949 hours (Total, all aircraft), 747 hours (Total, this make and model), 796 hours (Pilot In Command, all aircraft), 9 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N9519C
<b>Model/Series:</b>	PA-32RT-300	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1978	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	32R-7885053
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	April 5, 2023 Annual	<b>Certified Max Gross Wt.:</b>	3600 lbs
<b>Time Since Last Inspection:</b>	20 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	14277 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	C91 installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	IO-540-K1G5D
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	300 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>	KMNN,985 ft msl	<b>Distance from Accident Site:</b>	13 Nautical Miles
<b>Observation Time:</b>	15:53 Local	<b>Direction from Accident Site:</b>	297°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	9 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	330°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	29.95 inches Hg	<b>Temperature/Dew Point:</b>	24°C / 16°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Norfolk, VA (PVG)	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	Findlay, OH (FDY)	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	12:10 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	Morrow County 419	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	1086 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	28	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	3495 ft / 65 ft	<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 Minor	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Minor	<b>Latitude, Longitude:</b>	40.52035,-82.81677(est)

## Administrative Information

Investigator In Charge (IIC):	Hicks, Ralph
Additional Participating Persons:	David M Schleup; FAA/FSDO; Columbus, OH
Original Publish Date:	June 26, 2024
Last Revision Date:	
Investigation Class:	<a href="#">Class 3</a>
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=192691">https://data.nts.gov/Docket?ProjectID=192691</a>

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).