



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

# Aviation Investigation Final Report

<b>Location:</b>	Greensboro, Georgia	<b>Accident Number:</b>	ERA21LA392
<b>Date &amp; Time:</b>	September 25, 2021, 10:30 Local	<b>Registration:</b>	N5656H
<b>Aircraft:</b>	Piper PA-16	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Fuel exhaustion	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that he and his friend went to purchase an airplane from an airport in North Carolina. After an inspection and test flight of the airplane, he stated that, “we filled both tanks and called it a day.” The pilot returned the next day to pick up the airplane and said that he checked the fuel tanks and they looked full. He departed the airport enroute home and climbed to an altitude of 4,500 ft. He was aloft for 3 hours, using the right tank for 1 hour 30 minutes, followed by the left tank for 1 hour 30 minutes. He said that the engine “quit running” and he switched back to the right fuel tank. The engine started and ran for a few minutes before stopping again. The pilot elected to conduct an emergency landing on a rough logging road. After the emergency landing, the pilot checked the fuel tanks and stated that they were both empty. During a telephone interview with the pilot, he stated that his friend refueled the airplane, and he did not know how much fuel was put into the tanks.

The Federal Aviation Administration inspector who responded to the scene confirmed that both fuel tanks were empty of fuel. He did not observe any breaches of the fuel tanks, nor did he find any anomalies of the fueling system.

During inspection of the airplane by a mechanic, structural damage was discovered on the firewall. The engine mount was also observed buckled.

## Probable Cause and Findings

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

The pilot's inadequate preflight planning and fuel system inspection, which resulted in fuel exhaustion.

## Findings

<b>Aircraft</b>	Fuel - Fluid level
<b>Personnel issues</b>	Fuel planning - Pilot
<b>Personnel issues</b>	Preflight inspection - Pilot
<b>Personnel issues</b>	Decision making/judgment - Pilot
<b>Environmental issues</b>	Rough terrain - Contributed to outcome

## Factual Information

### History of Flight

<b>Enroute-cruise</b>	Fuel exhaustion (Defining event)
<b>Enroute-cruise</b>	Loss of engine power (total)
<b>Emergency descent</b>	Collision with terr/obj (non-CFIT)

### Pilot Information

<b>Certificate:</b>	Private; Sport Pilot	<b>Age:</b>	79, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Lap only
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Sport pilot None	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	(Estimated) 3200 hours (Total, all aircraft), 150 hours (Total, this make and model), 3200 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N5656H
<b>Model/Series:</b>	PA-16	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1949	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	16-267
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	June 8, 2021 Annual	<b>Certified Max Gross Wt.:</b>	1650 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1885 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	C91 installed, not activated	<b>Engine Model/Series:</b>	O-290-D
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	125 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>	KATL, 25 ft msl	<b>Distance from Accident Site:</b>	66 Nautical Miles
<b>Observation Time:</b>	10:35 Local	<b>Direction from Accident Site:</b>	270°
<b>Lowest Cloud Condition:</b>	Scattered / 20000 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 25000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots / None	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	280°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.14 inches Hg	<b>Temperature/Dew Point:</b>	22°C / 13°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Mount Olive, NC (W40)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	La Porte, TX (T41)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	07:30 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	Logging Road	<b>Runway Surface Type:</b>	None
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	Rough
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	33.575935,-83.182625(est)

## Administrative Information

**Investigator In Charge (IIC):** Alleyne, Eric

**Additional Participating Persons:** Andre Cummings; FAA/FSDO; Atlanta, GA

**Original Publish Date:** April 29, 2022

**Last Revision Date:**

**Investigation Class:** [Class 4](#)

**Note:** The NTSB did not travel to the scene of this accident.

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=104094>

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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](#).