



Aviation Investigation Final Report

Location:	Gordonville, Pennsylvania	Accident Number:	ERA24LA081
Date & Time:	January 1, 2024, 14:20 Local	Registration:	N722RM
Aircraft:	Piper PA32	Aircraft Damage:	Substantial
Defining Event:	Fuel starvation	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

After departing on the accident flight, the pilot moved the fuel selector from the left main fuel tank to the right wingtip fuel tank, and later the left wingtip fuel tank. With an estimated 20 minutes of flight time remaining, he attempted to select the right main fuel tank, but inadvertently selected the left main fuel tank. About 10 minutes later, began losing power. Despite the pilot's efforts to troubleshoot the issue by activating the fuel pump and articulating the throttle, the engine lost power completely. The pilot then selected the right main fuel tank but was unable to restart the engine. He subsequently performed a forced landing to a field, during which the airplane struck wires and fence posts, substantially damaging the left wing, as well as the horizontal and vertical stabilizers.

Postaccident examination of the airplane revealed that only 8 ounces of fuel remained in the left main fuel tank. While damage the left wing incurred during the accident compromised the integrity of the tank, there was no evidence of any fuel leakage. About 25 gallons of fuel remained in the right main fuel tank. The airframe fuel strainer contained about 2 ounces of uncontaminated fuel. Examination and operational testing of the fuel selector valve confirmed that the selector valve was functional in all positions and the indicator aligned properly in the detents. Based on this information, the pilot's inadvertent selection of the left main fuel tank resulted in exhausting its fuel supply, and the subsequent loss of engine power due to fuel starvation.

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 resulting in fuel starvation, a total loss of engine power, and subsequent off-airport forced landing.

Findings

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

Factual Information

History of Flight

Enroute-cruise	Fuel starvation (Defining event)
Emergency descent	Off-field or emergency landing
Landing-landing roll	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Private	Age:	45, 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:	
Medical Certification:	Class 3 None	Last FAA Medical Exam:	December 22, 2022
Occupational Pilot:	No	Last Flight Review or Equivalent:	August 20, 2022
Flight Time:	1345 hours (Total, all aircraft), 638 hours (Total, this make and model), 1301 hours (Pilot In Command, all aircraft), 18 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N722RM
Model/Series:	PA32 300	Aircraft Category:	Airplane
Year of Manufacture:	1974	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	32-7440140
Landing Gear Type:	Tricycle	Seats:	6
Date/Type of Last Inspection:	July 11, 2023 Annual	Certified Max Gross Wt.:	3400 lbs
Time Since Last Inspection:	37 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	5987 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C126 installed, not activated	Engine Model/Series:	IO-540-K1A5
Registered Owner:	On file	Rated Power:	300 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:	KLNS,397 ft msl	Distance from Accident Site:	10 Nautical Miles
Observation Time:	14:29 Local	Direction from Accident Site:	307°
Lowest Cloud Condition:	Scattered / 1300 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 4300 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	320°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.02 inches Hg	Temperature/Dew Point:	5°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Tangier, VA (TGI)	Type of Flight Plan Filed:	None
Destination:	Smoketown, PA (S37)	Type of Clearance:	None
Departure Time:	13:09 Local	Type of Airspace:	

Airport Information

Airport:	Smoketown Airport S37	Runway Surface Type:	
Airport Elevation:	370 ft msl	Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	40.024833,-76.128583

Administrative Information

Investigator In Charge (IIC):	Monville, Timothy
Additional Participating Persons:	Andrew Knowlton; FAA/FSDO; Harrisburg, PA
Original Publish Date:	October 31, 2024
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=193597

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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](#).