



Aviation Investigation Final Report

Location:	Hot Springs, Arkansas	Accident Number:	CEN24LA189
Date & Time:	May 15, 2024, 14:50 Local	Registration:	N6571J
Aircraft:	Piper PA-28-180	Aircraft Damage:	Destroyed
Defining Event:	Fuel starvation	Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The instructional flight was returning to the departure airport for landing when the student pilot changed the fuel tank selector position in preparation for landing. While flying the approach, the flight instructor told the student pilot to add engine power; however, the engine exhibited a total loss of engine power. The flight instructor took over the flight controls, and the airplane impacted a vacant area in a residential neighborhood. The airplane was destroyed by impact forces and postcrash fire.

Postaccident examination of the airplane revealed that the fuel selector valve did not intersect the valve body port positions. With the fuel selector valve between port positions, fuel cannot flow downstream to the engine. There were no other preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

Probable Cause and Findings

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

The student pilot's selection of an improper fuel tank selector position, which resulted in fuel starvation and a total loss of engine power. Contributing to the accident was the instructor's inadequate oversight.

Findings

Aircraft	Fuel selector/shutoff valve - Incorrect use/operation
Aircraft	Fuel - Not specified
Personnel issues	Use of equip/system - Student/instructed pilot
Personnel issues	(general) - Instructor/check pilot

Factual Information

History of Flight

Approach	Fuel starvation (Defining event)
Landing	Collision with terr/obj (non-CFIT)

On May 15, 2024, at 1450 central daylight time, a Piper PA-28-180, N6571J, was destroyed when it was involved in an accident near Hot Springs, Arkansas. The flight instructor sustained serious injuries, and the student pilot sustained minor injuries. The airplane was operated under Title 14 *Code of Federal Regulations* as a Part 91 instructional flight.

The flight instructor and student pilot had completed flight maneuvers as part of the instructional flight before returning from the practice area to the departure airport for a visual approach and landing. The flight instructor said that the student pilot made a fuel tank selection change while they performed the descent checklist. The student pilot was flying the approach when the flight instructor told the student pilot to add engine power, but the engine exhibited a total loss of engine power. The flight instructor took over the flight controls, and the airplane impacted a vacant area in a residential neighborhood. The airplane was destroyed by impact forces and postcrash fire.

Postaccident examination of the airplane revealed that the fuel selector valve did not intersect any of the valve body ports. With the fuel selector valve between port positions, fuel was unable to flow downstream to the engine. There were no other preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	42,Female
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	
Medical Certification:	Class 1 None	Last FAA Medical Exam:	August 18, 2023
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	November 7, 2022
Flight Time:	(Estimated) 698 hours (Total, all aircraft)		

Student pilot Information

Certificate:	Student	Age:	19,Female
Airplane Rating(s):		Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):		Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	April 10, 2024
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 18 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N6571J
Model/Series:	PA-28-180	Aircraft Category:	Airplane
Year of Manufacture:	1968	Amateur Built:	
Airworthiness Certificate:	Utility	Serial Number:	28-5024
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	March 20, 2024 Annual	Certified Max Gross Wt.:	2400 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3859.8 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	O-360-A4A
Registered Owner:	Lima Alpha	Rated Power:	180 Horsepower
Operator:	Lord Aviation	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	HOT,540 ft msl	Distance from Accident Site:	0.71 Nautical Miles
Observation Time:	14:53 Local	Direction from Accident Site:	255°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.84 inches Hg	Temperature/Dew Point:	29°C / 14°C
Precipitation and Obscuration:			
Departure Point:	Hot Springs, AR	Type of Flight Plan Filed:	None
Destination:	Hot Springs, AR	Type of Clearance:	VFR
Departure Time:		Type of Airspace:	Class E

Airport Information

Airport:	Memorial Field Airport HOT	Runway Surface Type:	Asphalt
Airport Elevation:	540 ft msl	Runway Surface Condition:	Dry
Runway Used:	23	IFR Approach:	None
Runway Length/Width:	6595 ft / 150 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Serious, 1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-ground
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor	Latitude, Longitude:	34.478028,-93.096222(est)

Administrative Information

Investigator In Charge (IIC):	Gallo, Mitchell
Additional Participating Persons:	Thomas Farago; Federal Aviation Administration, Little Rock FSDO; Little Rock, AR Russel Gait; Lycoming Engines; Williamsport, PA Johnathon Hirsch; Piper Aircraft Inc.; Vero Beach, FL
Original Publish Date:	February 20, 2025
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=194267

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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](#).