



Aviation Investigation Final Report

Location:	Ritchfield, Utah	Accident Number:	WPR23LA308
Date & Time:	August 8, 2023, 11:55 Local	Registration:	N8823J
Aircraft:	Piper PA-28-180	Aircraft Damage:	Substantial
Defining Event:	Fuel exhaustion	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Ferry		

Analysis

The pilot reported that, after flying for about four hours, the engine began to surge. Concerned about the fuel condition, he switched to the other fuel tank and turned toward a highway for a potential emergency landing. While descending, the engine experienced surges again and then sputtered, followed by a complete loss of engine power. The pilot noticed that both fuel tank gauges were showing empty. While maneuvering over the highway for a forced landing, the airplane's right wingtip collided with a semi-truck, causing the airplane to strike the highway and veer off into a median. The airplane sustained substantial damage to both wings. The pilot reported that there were no 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 pilot's improper preflight planning that resulted in the loss of engine power due to fuel exhaustion.

Findings

Personnel issues	Flight planning/navigation - Pilot
Personnel issues	Decision making/judgment - Pilot

Factual Information

History of Flight

Enroute-cruise	Fuel exhaustion (Defining event)
----------------	----------------------------------

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	62, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane multi-engine; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	April 26, 2023
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	September 1, 2021
Flight Time:	10400 hours (Total, all aircraft), 5500 hours (Total, this make and model), 9800 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 35 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Co-pilot Information

Certificate:	Commercial; Flight instructor; Private	Age:	35
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	November 18, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	686 hours (Total, all aircraft), 600 hours (Total, this make and model), 632 hours (Pilot In Command, all aircraft), 47 hours (Last 90 days, all aircraft), 16 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N8823J
Model/Series:	PA-28-180	Aircraft Category:	Airplane
Year of Manufacture:	1965	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	28-2778
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	March 17, 2023 100 hour	Certified Max Gross Wt.:	2400 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	2938 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-360-A3A
Registered Owner:	On file	Rated Power:	180 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:	KFOM, 4990 ft msl	Distance from Accident Site:	22 Nautical Miles
Observation Time:	12:15 Local	Direction from Accident Site:	343°
Lowest Cloud Condition:	Clear	Visibility	7 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.18 inches Hg	Temperature/Dew Point:	26°C / 5°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Livermore, CA (LVK)	Type of Flight Plan Filed:	VFR
Destination:	Northumberland, PA (N79)	Type of Clearance:	VFR flight following
Departure Time:	07:00 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	38.620511,-112.22863(est)

Administrative Information

Investigator In Charge (IIC):	Rho, Paul
Additional Participating Persons:	Kerry Shumway; Federal Aviation Administration; Salt Lake City, UT
Original Publish Date:	April 4, 2024
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=192830

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).