Aviation Investigation Final Report

Location:	Angostura, New Mexico	**Accident Number:**	WPR20LA121
Date & Time:	April 10, 2020, 13:32 Local	**Registration:**	N2112A
Aircraft:	Piper PA-32RT-300T	**Aircraft Damage:**	Substantial
Defining Event:	Off-field or emergency landing	**Injuries:**	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During a daytime visual flight rules cross-country flight, the pilot landed at an intermediate stop. He reported that, during landing, the "engine stopped," which he assumed was due to the high-density altitude. The pilot restarted the engine, taxied to parking, and refueled the airplane. He did not report doing any troubleshooting to determine why the engine quit during landing. The pilot subsequently departed the airport and was conducting "S-turn climbs" to avoid terrain. The pilot reported that, as the airplane was about 11,000 ft mean sea level, the engine sputtered. The pilot advanced throttle, mixture, and propeller controls forward. Recorded engine data showed normal operational signatures, and an increase in fuel flow, manifold pressure, and engine rpm, consistent with the pilot's action of advancing the engine controls. The pilot stated he turned to the right to avoid terrain and the stall warning activated during the turn. In response, he lowered the nose and decided to land in an area of snow-covered mountainous terrain, which resulted in substantial damage to the wings.

Postaccident examination of the recovered airframe and engine revealed no evidence of any preimpact mechanical malfunctions or failures that would have precluded normal operation. Engine data showed the engine operated normally throughout the flight and there were no anomalies prior to the data ending that would indicate the engine "sputtered" as reported by the pilot.

Probable Cause and Findings

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

The pilots precautionary off airport landing due to an undetermined engine issue.

Findings

Personnel issues	Use of equip/system - Pilot
Aircraft	(general) - Unknown/Not determined

Factual Information

History of Flight

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

On April 10, 2020, about 1332 mountain daylight time, a Piper PA-32RT-300T airplane, N2112A, was substantially damaged when it was involved in an accident near Angostura, New Mexico. The pilot sustained minor injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that prior to the accident flight, he landed at the Los Alamos Airport (LAM), Los Alamos, New Mexico. During the landing roll, the "engine stopped" and he "presumed at the time, it was due to the 8,500 [ft] density altitude." The pilot restarted the engine and taxied to the refueling area. After refueling the airplane, the pilot departed LAM for Kansas City, Missouri, which was northeast of LAM. About 20 to 25 minutes after departure, he was conducting "S-turn climbs" to avoid terrain. As the airplane was about 11,000 ft mean sea level, the engine sputtered. The pilot advanced throttle, mixture, and propeller controls forward, and turned the airplane to the right to avoid terrain. The pilot stated the stall warning activated during the turn. In response, he lowered the nose and decided to land in an area of snow-covered mountainous terrain. The airplane came to rest at an elevation of about 12,100 ft and about 45 miles northeast of LAM.

A photograph of the airplane taken by the pilot revealed that the left and right wings were separated and structurally damaged.

Examination of the recovered airframe and engine revealed no evidence of any preimpact mechanical malfunctions or failures that would have precluded normal operation.

Recorded engine data captured the accident flight. The data showed that all recorded parameters were consistent with normal operation throughout the flight until about a unit time of 1847:06, fuel flow, manifold pressure, and engine RPM increased from about 20 gallons per hour (GPH), 25.6 inches, and 2,393 rpm, to about 31 GPH, 32.7 inches, and 2,531 rpm respectively. At a unit time of 1847:54, fuel flow, manifold pressure, and engine RPM further increased to 36.5 GPH, 36.3 inches, and 2,696 rpm, followed by a decrease that is consistent with the engine losing power or shut down normally, as seen in figure 1.

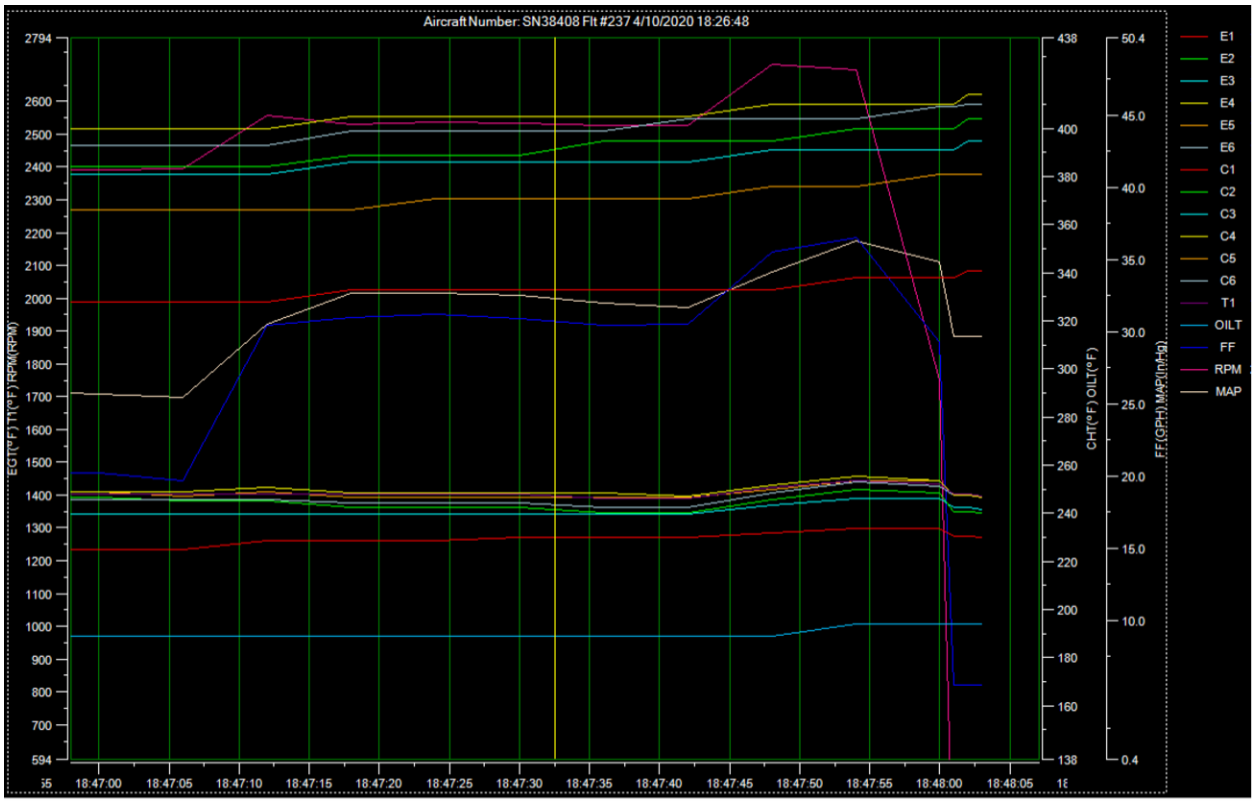

Figure 1: Portion of recorded engine data (last 1 minute, 5 seconds)

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	65,Male
Airplane Rating(s):	Single-engine land; Multi-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):	Airplane multi-engine; Airplane single-engine; Instrument airplane	**Toxicology Performed:**	No
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	July 26, 2018
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	May 26, 2018
Flight Time:	11000 hours (Total, all aircraft), 70 hours (Total, this make and model), 10500 hours (Pilot In Command, all aircraft), 25 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N2112A
Model/Series:	PA-32RT-300T	**Aircraft Category:**	Airplane
Year of Manufacture:	1978	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	32R-7987005
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	December 12, 2019 Annual	**Certified Max Gross Wt.:**	3600 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	as of last inspection	**Engine Manufacturer:**	Lycoming
ELT:	C126 installed, activated, did not aid in locating accident	**Engine Model/Series:**	TIO-540-S1AD
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:	KSKX,7091 ft msl	**Distance from Accident Site:**	23 Nautical Miles
Observation Time:	19:56 Local	**Direction from Accident Site:**	347°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	9 knots / 14 knots	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:	260°	**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:	30.04 inches Hg	**Temperature/Dew Point:**	16°C / -7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Los Alamos, NM (KLAM)	**Type of Flight Plan Filed:**	None
Destination:	Kansas City, MO (KMKC)	**Type of Clearance:**	None
Departure Time:	13:11 Local	**Type of Airspace:**	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	1 Minor	**Latitude, Longitude:**	36.070835,-105.558891(est)

Administrative Information

Investigator In Charge (IIC):	Cawthra, Joshua
Additional Participating Persons:	Dennis Beattie; Federal Aviation Administration; Albuquerque, NM Mark Platt; Lycoming Engines; Williamsport, PA Kathryn Whitaker; Piper Aircraft Inc.; Vero Beach, FL
Original Publish Date:	June 14, 2022
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=101168