



# Aviation Investigation Final Report

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

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## 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

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

## Factual Information

### History of Flight

<b>Enroute-cruise</b>	Off-field or emergency landing (Defining event)
<b>Landing</b>	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.

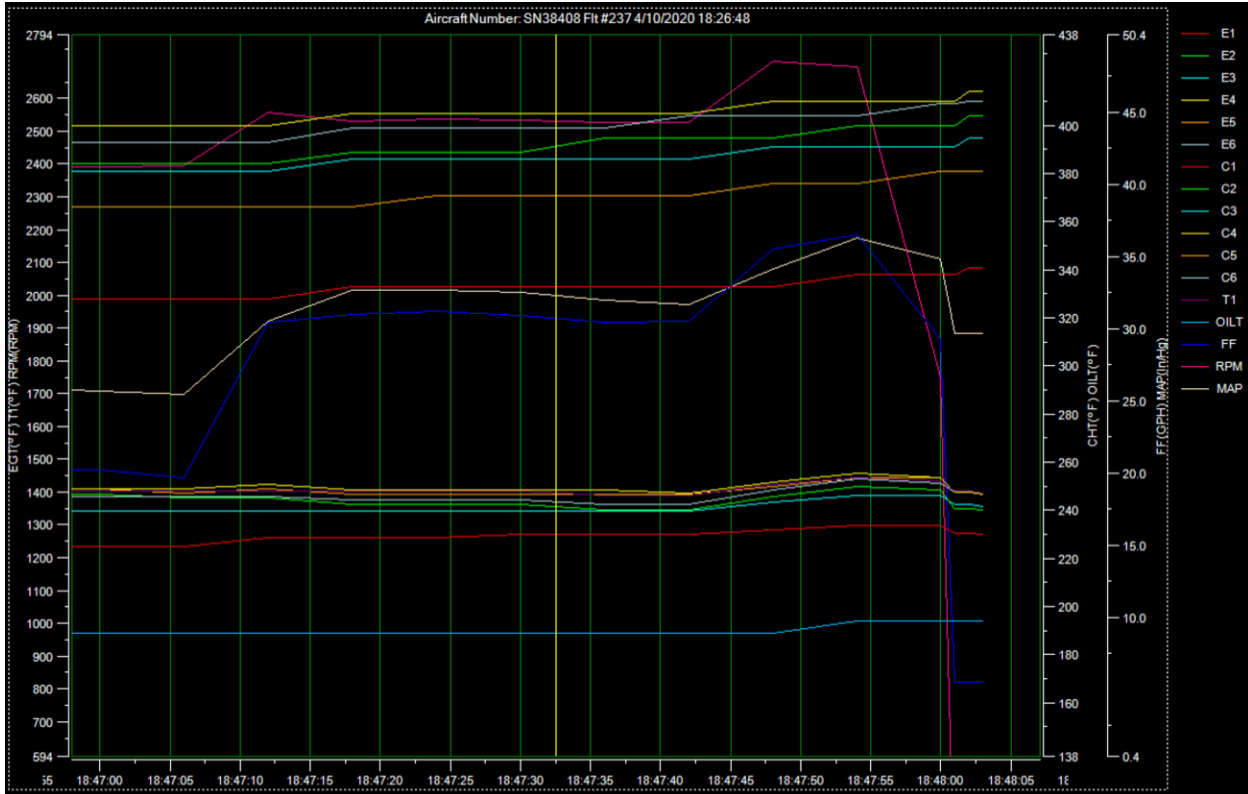


Figure 1: Portion of recorded engine data (last 1 minute, 5 seconds)

## Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	65, 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>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	July 26, 2018
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	May 26, 2018
<b>Flight Time:</b>	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

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

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<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 Minor	<b>Latitude, Longitude:</b>	36.070835,-105.558891(est)

## Administrative Information

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

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](#).