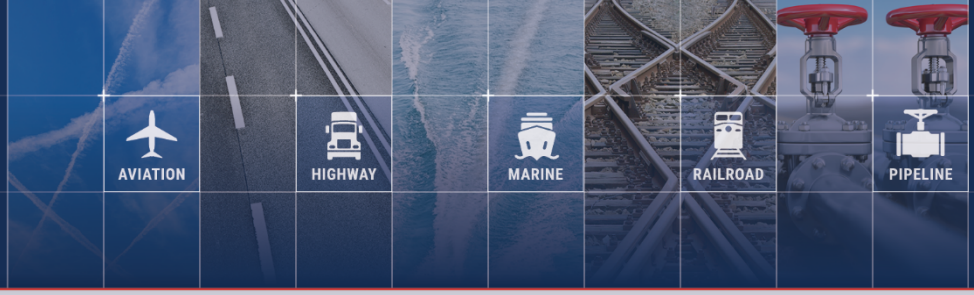

Aviation Investigation Final Report

Location:	Soldotna, Alaska	**Accident Number:**	ANC23LA020
Date & Time:	February 8, 2023, 17:00 Local	**Registration:**	N5987H
Aircraft:	Piper PA-16	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (total)	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that on departure the engine lost then regained power. The pilot turned the airplane back toward the airport to land and, during the turn, a total loss of engine power occurred. The airplane impacted a snowbank during the landing. The airplane sustained substantial damage to the fuselage.

Postaccident examination of the engine revealed no evidence of any preimpact mechanical malfunctions or failures 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:

A total loss of engine power for undetermined reasons.

Findings

Aircraft	(general) - Failure
Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Takeoff	Loss of engine power (total) (Defining event)

On February 08, 2023, about 1700 Alaska daylight time, a Piper PA-16 airplane, N5987H sustained substantial damage when it was involved in an accident in Soldotna, Alaska. The pilot was not injured. The airplane was operated by the pilot as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

Shortly after takeoff, the engine lost partial power then regained power. The pilot turned the airplane back to the airport to perform an emergency landing. While in the turn, a total loss of engine power occurred and upon landing on airport property, the airplane impacted a snowbank. The airplane sustained substantial damage to the fuselage.

A postaccident examination of the engine, with oversight by a Federal Aviation Administration inspector, revealed no evidence of any preimpact mechanical malfunctions or anomalies that would have precluded normal operation.

The carburetor icing chart shows the weather conditions were conducive for carburetor ice at glide or cruise power.

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	54,Female
Airplane Rating(s):	Single-engine land; Single-engine sea; 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 single-engine; Instrument airplane	**Toxicology Performed:**	
Medical Certification:	Class 1 With waivers/limitations	**Last FAA Medical Exam:**	April 11, 2022
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	June 17, 2021
Flight Time:	1813.5 hours (Total, all aircraft), 215 hours (Total, this make and model), 1763 hours (Pilot In Command, all aircraft), 69.2 hours (Last 90 days, all aircraft), 28.5 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N5987H
Model/Series:	PA-16	**Aircraft Category:**	Airplane
Year of Manufacture:	1946	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	16-615
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	January 18, 2023 Annual	**Certified Max Gross Wt.:**	1650 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:	C126 installed, not activated	**Engine Model/Series:**	O-320
Registered Owner:	On file	**Rated Power:**	150 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:	PASX,113 ft msl	**Distance from Accident Site:**	0 Nautical Miles
Observation Time:	16:56 Local	**Direction from Accident Site:**	68°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	Overcast / 6500 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots /	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:	60°	**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:	29.87 inches Hg	**Temperature/Dew Point:**	-2°C / -8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Soldotna, AK	**Type of Flight Plan Filed:**	None
Destination:	Sterling, AK (88AK)	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	Class G

Airport Information

Airport:	Soldotna Airport SXQ	**Runway Surface Type:**	Snow
Airport Elevation:	113 ft msl	**Runway Surface Condition:**	Snow
Runway Used:	07	**IFR Approach:**	None
Runway Length/Width:	5001 ft / 130 ft	**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	60.474864,-151.03964(est)

Administrative Information

Investigator In Charge (IIC):	Ward, Mark
Additional Participating Persons:	Charles Versaw; FAA; AK
Original Publish Date:	December 14, 2023
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=106728