



# Aviation Investigation Final Report

<b>Location:</b>	Wasilla, Alaska	<b>Accident Number:</b>	ANC18LA040
<b>Date &amp; Time:</b>	June 2, 2018, 10:25 Local	<b>Registration:</b>	N624MW
<b>Aircraft:</b>	Piper PA 18-150	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of engine power (total)	<b>Injuries:</b>	1 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that, shortly after departure for a cross-country flight, the engine lost total power. He was unable to return to the runway, and the airplane impacted trees, which resulted in substantial damage to the wings and rudder.

A postaccident engine examination revealed small unidentified contaminants in the gascolator and carburetor bowl. The amount and size of the contaminants were not enough that would be expected to cause a total loss of engine power.

After the examination, an engine test run was conducted with no hesitations or anomalies observed.

## 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 reasons that could not be determined based on the available information.

## Findings

<b>Not determined</b>	(general) - Unknown/Not determined
<b>Environmental issues</b>	Tree(s) - Contributed to outcome



# Factual Information

## History of Flight

Initial climb	Loss of engine power (total) (Defining event)
Emergency descent	Collision with terr/obj (non-CFIT)

On June 2, 2018, about 1025 Alaska daylight time, a Piper PA-18-150 airplane, N624MW, sustained substantial damage during a forced landing, following a total loss of engine power near Lawrence Airstrip (55AK), Wasilla, Alaska. The airplane was registered to and operated by the pilot as a 14 *Code of Federal Regulations* (CFR) Part 91 visual flight rules flight when the accident occurred. The private pilot sustained serious injuries. Visual meteorological conditions prevailed, and no flight plan had been filed. The flight departed 55AK about 1023 destined for Big Lake, Alaska.

According to the pilot, shortly after departure from 55AK, all engine power was lost. There were no sights or sounds consistent with a catastrophic engine failure and the engine ceased operation consistent with fuel starvation. The pilot reported the left fuel tank was about ½ full, the right fuel tank was empty, and the fuel selector was on "BOTH."

During the forced landing, the pilot attempted to return to the runway, but impacted a forested area of tall spruce and birch trees, resulting in substantial damage to the wings and rudder.

On July 11, 2018 the engine, a Lycoming O-320-A2B, was examined at Alaska Claims Services under the supervision of the National Transportation Safety Board (NTSB) investigator-in-charge (IIC) and another NTSB investigator. Prior to removing the engine from the airframe, the gascolator was drained and small amounts of unidentified contaminants were found. The carburetor bowl was then drained with more minute contaminants present.

The engine was then removed from the airframe and transported to Alaska Aircraft Engines, Anchorage, Alaska where it was attached to an engine test truck on July 17. A four bladed wooden club propeller was installed for the test run. The engine started within 3 seconds and was warmed at idle power for 5 minutes. The engine RPM was set at idle and maximum power for 5 minutes each followed by rapid manipulations from idle to maximum continuous power. No hesitations or anomalies were observed throughout the engine run.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	65, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	February 1, 2018
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	March 28, 2018
<b>Flight Time:</b>	4643 hours (Total, all aircraft), 4603 hours (Total, this make and model), 51 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N624MW
<b>Model/Series:</b>	PA 18-150 150	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1968	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	18-8739
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	April 1, 2018 Annual	<b>Certified Max Gross Wt.:</b>	2000 lbs
<b>Time Since Last Inspection:</b>	25 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	4800 Hrs at time of accident	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	C126 installed, activated, aided in locating accident	<b>Engine Model/Series:</b>	O-320 SERIES
<b>Registered Owner:</b>		<b>Rated Power:</b>	160 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>	PAWS,354 ft msl	<b>Distance from Accident Site:</b>	7 Nautical Miles
<b>Observation Time:</b>	17:56 Local	<b>Direction from Accident Site:</b>	44°
<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>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	29.97 inches Hg	<b>Temperature/Dew Point:</b>	16°C / 6°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	WASILLA, AK (55AK)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	BIG LAKE, AK (BGQ )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	LAWRENCE AIRSTRIP 55AK	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	200 ft msl	<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious	<b>Latitude, Longitude:</b>	61.493331,-149.703048

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Williams, David
<b>Additional Participating Persons:</b>	Bruce Cummings; FAA; Anchorage, AK Troy Helgeson; Lycoming Engines; Williamsport, PA
<b>Original Publish Date:</b>	June 3, 2020
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=97389">https://data.nts.gov/Docket?ProjectID=97389</a>

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).