



Aviation Investigation Final Report

Location:	Ridgefield, Washington	Accident Number:	WPR15CA095
Date & Time:	January 29, 2015, 15:30 Local	Registration:	N918TF
Aircraft:	Piper PA 12	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 15 minutes after takeoff, during cruise flight, the engine experienced a total loss of power. She pulled the carburetor heat control knob on, and initiated a forced landing to a grassy field. During the landing roll, the airplane collided with heavy vegetation, which resulted in substantial damage to the left wing.

About 30 minutes prior to the accident, a weather station located about 10 nautical miles from the accident site reported a temperature of 48 degrees F and dew point of 43 degrees F. These weather conditions were conducive to the high probability of carburetor ice formation, with the potential for serious icing at cruise power.

During the postaccident engine examination, the engine was prepared for an engine run. The engine was started and run with no mechanical failures or malfunctions noted 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 delayed action to use carburetor heat before the engine experienced a total loss of power while operating at cruise flight in conditions conducive to carburetor icing.

Findings

Environmental issues	Conducive to carburetor icing - Effect on equipment
Personnel issues	Delayed action - Pilot

Factual Information

History of Flight

Enroute-cruise	Loss of engine power (total) (Defining event)
Landing-landing roll	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Private	Age:	59
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Front
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	January 3, 2014
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 3025 hours (Total, all aircraft), 172 hours (Total, this make and model), 2818 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N918TF
Model/Series:	PA 12	Aircraft Category:	Airplane
Year of Manufacture:	1947	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	12-2232
Landing Gear Type:	Tailwheel	Seats:	3
Date/Type of Last Inspection:	May 2, 2014 Annual	Certified Max Gross Wt.:	1935 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3010 Hrs as of last inspection	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	O-290 SERIES
Registered Owner:	NICOLAI JANE G	Rated Power:	150 Horsepower
Operator:	NICOLAI JANE G	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KVUO, 18 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	22:53 Local	Direction from Accident Site:	163°
Lowest Cloud Condition:	Clear	Visibility:	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.27 inches Hg	Temperature/Dew Point:	9°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	VANCOUVER, WA (VUO)	Type of Flight Plan Filed:	None
Destination:	VANCOUVER, WA (VUO)	Type of Clearance:	None
Departure Time:	15:15 Local	Type of Airspace:	Class D; Class E

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	45.768611,-122.720001(est)

Administrative Information

Investigator In Charge (IIC):	Smith, Maja
Additional Participating Persons:	Dee Rice; FAA
Original Publish Date:	April 21, 2015
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=90671

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](#).