



National Transportation Safety Board Aviation Accident Factual Report

Location:	Chickaloon, AK	Accident Number:	ANC16CA056
Date & Time:	08/07/2016, 2100 AKD	Registration:	N907BT
Aircraft:	BRIAN TURNER NORTHERN EXPLORER	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (partial)	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

The pilot reported that he was conducting a low reconnaissance in his tailwheel-equipped airplane of a potential grass landing site in remote mountainous terrain during the late evening hours. While conducting the low reconnaissance, he engaged the carburetor heat, descended over the landing site, disengaged the carburetor heat, applied full throttle, and then departed from the landing site. As the airplane departed from the landing site, he reported that the engine revolutions per minute (rpm) were "very low" due to carburetor ice. He stated that due to the loss of power the airplane was capable of level flight, but unable to climb. As the airplane approached rising terrain, he turned about 180 degrees, and landed in an area of thick vegetation about 20 miles per hour. During the landing sequence, the propeller and left wing impacted terrain. The airplane sustained substantial damage to both wings and the fuselage.

The pilot further reported that the airplane did not have a carburetor temperature gauge installed.

The pilot verified that there were no preimpact mechanical failures or malfunctions with the airframe or engine that would have precluded normal operation.

In the recommendation section of the National Transportation Safety Board Accident/Incident Reporting Form 6120.1, the pilot stated that the accident may have been avoided if he did not utilize the landing site at that time of the day.

The Federal Aviation Administration has published Special Airworthiness Information Bulletin CE-09-35 Carburetor Icing Prevention (2009). This document discusses carburetor icing and states in part:

Pilots should be aware that carburetor icing doesn't just occur in freezing conditions, it can occur at temperatures well above freezing temperatures when there is visible moisture or high humidity. Icing can occur in the carburetor at temperatures above freezing because vaporization of fuel, combined with the expansion of air as it flows through the carburetor, (Venturi Effect) causes sudden cooling, sometimes by a significant amount within a fraction of

a second. Carburetor ice can be detected by a drop in rpm in fixed pitch propeller airplanes and a drop in manifold pressure in constant speed propeller airplanes. In both types, usually there will be a roughness in engine operation.

The pilot should respond to carburetor icing by applying full carburetor heat immediately. The engine may run rough initially for a short time while ice melts.

Pilot Information

Certificate:	Private	Age:	27, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Without Waivers/Limitations	Last FAA Medical Exam:	10/17/2012
Occupational Pilot:	No	Last Flight Review or Equivalent:	11/11/2014
Flight Time:	(Estimated) 600 hours (Total, all aircraft), 500 hours (Total, this make and model), 600 hours (Pilot In Command, all aircraft), 150 hours (Last 90 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BRIAN TURNER	Registration:	N907BT
Model/Series:	NORTHERN EXPLORER	Aircraft Category:	Airplane
Year of Manufacture:	2015	Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	072515
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	06/08/2016, 100 Hour	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	205 Hours at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-320-A2B
Registered Owner:	On file	Rated Power:	180 hp
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	PAAQ, 230 ft msl	Distance from Accident Site:	30 Nautical Miles
Observation Time:	0453 UTC	Direction from Accident Site:	256°
Lowest Cloud Condition:	Few / 700 ft agl	Visibility	10 Miles
Lowest Ceiling:	Overcast / 10000 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:		Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	29.56 inches Hg	Temperature/Dew Point:	16° C / 14° C
Precipitation and Obscuration:	Light - Rain		
Departure Point:	WASILLA, AK (7AK4)	Type of Flight Plan Filed:	None
Destination:	WASILLA, AK (7AK4)	Type of Clearance:	None
Departure Time:	1830 ADT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	61.725000, -148.069167 (est)

Administrative Information

Investigator In Charge (IIC):	Michael J Hodges
Additional Participating Persons:	Gregory Varner; FAA Anchorage FSDO; Anchorage, AK
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=93808