



Aviation Investigation Final Report

Location:	Keshena, Wisconsin	Accident Number:	CEN19LA060
Date & Time:	January 19, 2019, 11:25 Local	Registration:	N97969
Aircraft:	Stinson 108	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	1 Serious, 3 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was conducting a personal flight; while in cruise flight, the engine experienced a momentary and substantial loss of rpm. The pilot moved the mixture to the full-rich position, turned on the carburetor heat, and switched to the right fuel tank. The engine recovered power, and the pilot left the carburetor heat on for about 3 minutes and then slowly turned it off. About 2 minutes later, the engine lost all power. The pilot activated the starter, but it did not engage. The pilot chose to execute a forced landing on a road, during which the airplane impacted trees, bounced, and then came to rest inverted on a snow-covered embankment.

Postaccident examination of the engine revealed no evidence of any preimpact mechanical malfunctions or failures that would have precluded normal operation. The temperature and dewpoint at the time of the accident were not conducive for the formation of carburetor icing. The airplane had an adequate amount of fuel onboard at the time of the accident. Therefore, the reason for the loss of all engine power could not be determined.

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 during cruise flight for undetermined reasons, which resulted in a forced landing and subsequent impact with trees.

Findings

Not determined

(general) - Unknown/Not determined

Factual Information

History of Flight

Enroute-cruise	Loss of engine power (total) (Defining event)
Enroute-cruise	Attempted remediation/recovery
Emergency descent	Off-field or emergency landing
Landing	Collision during takeoff/land

On January 19, 2019, about 1125 central standard time, a Stinson 108-1, N97969, sustained substantial damage when it was involved in an accident on the Menominee Indian Reservation near Keshena, Wisconsin. The private pilot sustained serious injuries and the three passengers sustained minor injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that the purpose of the personal flight was to travel to Ford Airport (IMT), Iron Mountain, Michigan. The airplane had 26 gallons of fuel onboard prior to departure. While in cruise flight, the engine sustained a momentary and substantial loss of rpm. The pilot reported that cruise power settings was about 2,300 rpm and the rpm needle decreased down to about 1,500 rpm. The pilot applied the mixture to the full rich position, activated the carburetor heat, and switched to the right fuel tank. The engine recovered and the pilot left the carburetor heat on for about three minutes and then slowly turned it off. About two minutes after the carburetor heat was turned off, the engine ceased producing power. The pilot reported the propeller did not windmill after the loss of engine power.

The pilot activated the starter and it did not engage. The pilot observed an asphalt road surrounded by trees on both sides where he decided to execute a forced landing. During the landing, the airplane impacted the trees and bounced on the road, coming to rest upside down on a snow-covered embankment. The occupants were able to egress without further incident.

The airplane sustained substantial damage to the fuselage, both wings, and the empennage. A postaccident examination of the engine by the Federal Aviation Administration (FAA) found no preimpact mechanical malfunctions or failures that would have precluded normal operation.

The temperature and dewpoint at the time of the accident were not conducive for the formation of carburetor icing per the carburetor icing probability graph from the FAA Special Airworthiness Information Bulletin CE-09-35 Carburetor Icing Prevention.

Although requested, the pilot did not submit the National Transportation Safety Board Pilot/Operator Aircraft Accident/Incident Report Form 6120.1.

Pilot Information

Certificate:	Private	Age:	41, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	June 6, 2017
Occupational Pilot:	No	Last Flight Review or Equivalent:	August 1, 2018
Flight Time:	(Estimated) 3465 hours (Total, all aircraft), 22 hours (Total, this make and model), 35 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Stinson	Registration:	N97969
Model/Series:	108 1	Aircraft Category:	Airplane
Year of Manufacture:	1946	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	108-969
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:		Certified Max Gross Wt.:	2150 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Franklin
ELT:	C91 installed, activated, did not aid in locating accident	Engine Model/Series:	6A4-165
Registered Owner:	On file	Rated Power:	165 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:	KEZS,814 ft msl	Distance from Accident Site:	13 Nautical Miles
Observation Time:	17:35 Local	Direction from Accident Site:	170°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	20°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.26 inches Hg	Temperature/Dew Point:	-9°C / -16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Waupaca, WI (PCZ)	Type of Flight Plan Filed:	None
Destination:	Iron Mountain Kingsford, MI (IMT)	Type of Clearance:	None
Departure Time:	11:00 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	3 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 3 Minor	Latitude, Longitude:	44.996387,-88.603614(est)

Administrative Information

Investigator In Charge (IIC):	Hodges, Michael
Additional Participating Persons:	Joseph Saunders; FAA Milwaukee FSDO; Milwaukee, WI
Original Publish Date:	May 5, 2021
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=98878

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](#).