



Aviation Investigation Final Report

Location: Beach City, Ohio Accident Number: ERA24LA201

Date & Time: April 25, 2024, 14:30 Local Registration: N97517

Aircraft: Stinson 108 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 about one hour into the flight the engine rpm began to decrease. The rpm quickly worsened, and he applied carburetor heat, but the engine did not respond before losing all power. The pilot conducted a forced landing to rough terrain, during which the airplane struck a ditch, substantially damaging the fuselage. The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation and that loss of engine power was likely the result of carburetor icing.

The weather reported at an airport about 13 nautical miles from of the accident site included a temperature of 14°C and a dew point 3°C. The calculated relative humidity at this temperature and dewpoint was 47 percent. Review of the icing probability chart contained within Federal Aviation Administration Special Airworthiness Information Bulletin CE-09-35 revealed the atmospheric conditions at the time of the accident were "conducive to serious icing at glide power."

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 due to the due to the pilot's delayed application of carburetor heat.

Findings

Personnel issues Delayed action - Pilot

Aircraft Intake anti-ice, deice - Incorrect use/operation

Environmental issues Conducive to carburetor icing - Response/compensation

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Factual Information

History of Flight

Emergency descent Loss of engine power (total) (Defining event)

Pilot Information

Certificate:	Commercial	Age:	75,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	None Without waivers/limitations	Last FAA Medical Exam:	May 9, 2024
Occupational Pilot:	No	Last Flight Review or Equivalent:	April 8, 2024
Flight Time:	894 hours (Total, all aircraft), 384 hours (Total, this make and model), 5 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Stinson	Registration:	N97517
Model/Series:	108	Aircraft Category:	Airplane
Year of Manufacture:	1946	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	108-517
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	August 24, 2023 Annual	Certified Max Gross Wt.:	2250 lbs
Time Since Last Inspection:	16 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1581 Hrs as of last inspection	Engine Manufacturer:	Franklin
ELT:	C91 installed, not activated	Engine Model/Series:	150
Registered Owner:	On file	Rated Power:	150
Operator:	On file	Operating Certificate(s) Held:	None

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Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PHD,891 ft msl	Distance from Accident Site:	13 Nautical Miles
Observation Time:	14:53 Local	Direction from Accident Site:	145°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 4700 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.28 inches Hg	Temperature/Dew Point:	14°C / 3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Urbana, OH (I74)	Type of Flight Plan Filed:	None
Destination:	Minerva, OH (OH15)	Type of Clearance:	None
Departure Time:	12:45 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	40.652851,-81.587416(est)

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Administrative Information

Investigator In Charge (IIC):	Boggs, Daniel
Additional Participating Persons:	Jose Borges; FAA; Cleveland, OH
Original Publish Date:	June 21, 2024
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=194190

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.

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