



Aviation Investigation Final Report

Location:	Indian River, Michigan	Accident Number:	CHI05LA013
Date & Time:	October 21, 2004, 16:27 Local	Registration:	N425C
Aircraft:	Stinson 108-2	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane was substantially damaged and the pilot seriously injured during a forced landing following a complete loss of engine power on initial climb after takeoff. The pilot reported that he took off and reached an altitude of approximately 800 feet above ground level (agl) when the engine lost power completely. In order to avoid an urban area and interstate highway ahead, he elected to make a 180-degree turn and return to the airport. The pilot reported that after the turn the aircraft was not in a proper position to land on the runway. The aircraft landed on the airport and came to rest inverted approximately 560 feet from the runway. A post-accident examination did not reveal any anomalies associated with a pre-impact failure.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Loss of engine power during initial climb after takeoff for undetermined reasons. A contributing factor was the unsuitable terrain for a forced landing encountered by the pilot and the airplane's low altitude at the time engine power was lost.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: EMERGENCY LANDING

Findings

2. (F) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - ENCOUNTERED - PILOT IN COMMAND

3. TERRAIN CONDITION - GROUND

4. (F) ALTITUDE - LOW

Factual Information

On October 21, 2004, about 1627 eastern daylight time, a Stinson 108-2, N425C, piloted by a student pilot, was substantially damaged during a forced landing following a loss of engine power after takeoff at the Calvin Campbell Municipal Airport (Y65), Indian River, Michigan. The flight was operating under 14 CFR Part 91 without a flight plan. Visual meteorological conditions prevailed. The pilot sustained serious injuries. The intended destination was Cheboygan County Airport (SLH), Cheboygan, Michigan.

In his written statement, the pilot reported that he took off from runway 28 (3,006 feet by 50 feet, asphalt) and reached approximately 800 feet above ground level (agl) when the engine lost power completely. In order to avoid an urban area and interstate highway ahead, he elected to make a 180-degree turn and return to the airport. The pilot reported that after the turn the aircraft was not in a position to land on the runway.

The aircraft landed on the airport and came to rest inverted approximately 560 feet from the runway.

A post-accident examination did not reveal any anomalies associated with a pre-impact failure. Engine continuity was confirmed and no gearbox damage was observed. Compression was present at all cylinders. The magnetos produced a spark when rotated. Fuel was sprayed into the carburetor when the throttle linkage was actuated. Throttle and carburetor heat continuity was intact.

The temperature and dew point recorded by the Cheboygan County Airport (SLH) Automated Weather Observing System (AWOS), at 1635, were 11 degrees Celsius and 6 degrees Celsius, respectively. SLH was located approximately 15 miles north of Y65. Data obtained from Transport Canada indicated that serious carburetor icing was possible at any power setting under those conditions.

Pilot Information

Certificate:	Student	Age:	56, Male
Airplane Rating(s):	None	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 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	February 20, 2002
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	197 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Stinson	Registration:	N425C
Model/Series:	108-2	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	108-3425
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	July 24, 2004 Annual	Certified Max Gross Wt.:	2075 lbs
Time Since Last Inspection:	25 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2160 Hrs as of last inspection	Engine Manufacturer:	Franklin
ELT:	Not installed	Engine Model/Series:	6A4165
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:	SLH,641 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	16:35 Local	Direction from Accident Site:	17°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots / 0 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	50°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.2 inches Hg	Temperature/Dew Point:	11°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Indian River, MI (Y65)	Type of Flight Plan Filed:	None
Destination:	Cheboygan, MI (SLH)	Type of Clearance:	None
Departure Time:	16:25 Local	Type of Airspace:	Class G

Airport Information

Airport:	Calvin Campbell Muni Y65	Runway Surface Type:	Asphalt
Airport Elevation:	602 ft msl	Runway Surface Condition:	Dry
Runway Used:	28	IFR Approach:	None
Runway Length/Width:	3006 ft / 50 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	45.408332,-84.599998

Administrative Information

Investigator In Charge (IIC):	Sorensen, Timothy
Additional Participating Persons:	Henry Aung; FAA-Grand Rapids FSDO; Grand Rapids, MI
Original Publish Date:	October 27, 2005
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=60443

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](#).