



National Transportation Safety Board Aviation Accident Final Report

Location:	PETERSBURG, OH	Accident Number:	BF093LA038
Date & Time:	03/01/1993, 1415 EST	Registration:	N5523L
Aircraft:	CESSNA 152	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None

Flight Conducted Under: Part 91: General Aviation - Instructional

Analysis

WHILE RETURNING TO THE AIRPORT FROM AN INSTRUCTIONAL FLIGHT, THE ENGINE 'HAD A SUDDEN POWER DROP OF 1300 TO 1400 RPM,' ACCORDING TO THE CFI. THE CFI 'WENT THROUGH THE EMERGENCY CHECKLIST' AND 'COULD NOT HOLD ALTITUDE.' THE ENGINE LOST ALL POWER WHEN THE LEFT MAGNETO WAS SELECTED. THE CFI PERFORMED A FORCED LANDING ON SHORT, SOFT, HILLY TERRAIN, AND THE AIRPLANE NOSED OVER. THE FLAPS WERE FOUND IN THE RETRACTED POSITION, ALTHOUGH THE FLAP SELECTOR SWITCH WAS FOUND IN THE FULLY EXTENDED POSITION. AN EXAMINATION OF THE AIRPLANE DID NOT REVEAL ANY MECHANICAL MALFUNCTIONS. BOTH MAGNETOS WERE FUNCTIONALLY TESTED AND MET MANUFACTURER'S TOLERANCES. THE TEMPERATURE AND DEW POINT WERE 38 AND 20 DEG, RESPECTIVELY. ACCORDING TO CARBURETOR ICING PROBABILITY CHARTS, CONDITIONS WERE CONDUCIVE TO VISIBLE ICING AT GLIDE AND CRUISE POWER; THE CARBURETOR HEAT WAS FOUND IN A MIDWAY POSITION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: LOSS OF ENGINE POWER DUE TO UNDETERMINED REASONS. A FACTOR RELATED TO THE ACCIDENT WAS THE SHORT, SOFT, HILLY TERRAIN CONDITION IN THE EMERGENCY LANDING AREA.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: DESCENT - NORMAL

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: NOSE OVER
Phase of Operation: LANDING - ROLL

Findings

2. LOWERING OF FLAPS - NOT ATTAINED - PILOT IN COMMAND
3. TERRAIN CONDITION - SOFT
4. TERRAIN CONDITION - MOUNTAINOUS/HILLY

Factual Information

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	22, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	06/22/1992
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	592 hours (Total, all aircraft), 129 hours (Total, this make and model), 496 hours (Pilot In Command, all aircraft), 185 hours (Last 90 days, all aircraft), 76 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N5523L
Model/Series:	152 152	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal; Utility	Serial Number:	15284334
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	02/03/1993, 100 Hour	Certified Max Gross Wt.:	1670 lbs
Time Since Last Inspection:	51 Hours	Engines:	1 Reciprocating
Airframe Total Time:	6592 Hours	Engine Manufacturer:	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	O-235-L2C
Registered Owner:	STENSIN AVIATION, INC	Rated Power:	110 hp
Operator:	STENSIN AVIATION, INC	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	YNG, 1057 ft msl	Distance from Accident Site:	10 Nautical Miles
Observation Time:	1351 EST	Direction from Accident Site:	160°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	17 knots / 23 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	3°C / -7°C
Precipitation and Obscuration:			
Departure Point:	BEAVER FALLS, PA	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1345 EST	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Jeffrey B Guzzetti	Report Date:	11/03/1993
Additional Participating Persons:	KENNETH SHAUMAN; CLEVELAND, OH		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).