



National Transportation Safety Board Aviation Accident Final Report

Location:	CLEVELAND, TN	Accident Number:	ATL01LA017
Date & Time:	12/03/2000, 1030 EST	Registration:	N5288P
Aircraft:	Cessna 152	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Minor

Flight Conducted Under: Part 91: General Aviation - Instructional

Analysis

The pilots had been conducting short-field takeoffs and, full-stop landing followed by a taxi back to runway 21. During the third takeoff, they experienced a total loss of engine power as they climbed through 100 feet. The CFI initiated a forced landing. The airplane struck trees, nosed over, and collided with a storage shed as he maneuvered the airplane for the forced landing. Terrain and other obstructions were unsuitable for a forced landing. Examination of the airplane and the engine assembly failed to disclose a mechanical malfunction of component failure. A review of weather data showed that conditions were favorable for the formation of carburetor ice.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of engine power during takeoff due to carburetor ice. A factor was unsuitable terrain.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) WEATHER CONDITION - CARBURETOR ICING CONDITIONS

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

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

2. (F) TERRAIN CONDITION - NONE SUITABLE

Factual Information

On December 3, 2000, at 1030 eastern standard time, a Cessna 152, N5288P, collided with the ground during a short field takeoff from Hardwick Field Airport in Cleveland, Tennessee. The certified flight instructor (CFI) received serious injuries and the dual student received minor injuries. Visual meteorological conditions prevailed, and no flight plan was filed for the local instructional flight being conducted under Title 14 CFR Part 91. The flight was originating from Cleveland, Tennessee, at the time of the accident.

The CFI reported that he and the student pilot had been conducting short-field takeoffs and, full-stop landing followed by a taxi back to runway 21. The CFI stated that during the third takeoff, they experienced a total loss of engine power as they climbed through 100 feet. At this point the CFI took control of the airplane from the dual student and initiated a forced landing. The airplane struck trees, nosed over, and collided with a storage shed as the CFI maneuvered the airplane for the forced landing. The CFI stated that he elected the left maneuvering turn to avoid terrain and other obstructions that were not suitable for a forced landing.

Examination of the accident site revealed that the airplane rested about 250 feet left of the runway edge. Examination of the airplane and the engine assembly failed to disclose a mechanical malfunction of component failure. A review of weather data showed that conditions were favorable for the formation of carburetor ice.

Pilot Information

Certificate:	Commercial	Age:	24, Female
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:	No
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	04/26/2000
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	860 hours (Total, all aircraft), 413 hours (Total, this make and model), 792 hours (Pilot In Command, all aircraft), 217 hours (Last 90 days, all aircraft), 59 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N5288P
Model/Series:	152 152	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Utility	Serial Number:	15284908
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	100 Hour	Certified Max Gross Wt.:	1670 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Installed	Engine Model/Series:	O-235-L2C
Registered Owner:	CHRISTIAN FRET LAND	Rated Power:	108 hp
Operator:	CHRISTIAN FRET LAND	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Dawn
Observation Facility, Elevation:	CHA, 682 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	1026 EST	Direction from Accident Site:	80°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 2100 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	1°C / -1°C
Precipitation and Obscuration:			
Departure Point:	(HDI)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1030 EST	Type of Airspace:	

Airport Information

Airport:	HARDWICK FIELD (HDI)	Runway Surface Type:	Asphalt
Airport Elevation:	850 ft	Runway Surface Condition:	Dry
Runway Used:	21	IFR Approach:	None
Runway Length/Width:	3300 ft / 75 ft	VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	B. BEACH SCOTT	Report Date:	04/19/2001
Additional Participating Persons:	BRIAN SWORD		
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 pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.ntsbt.gov/pubdms/ .		

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