



National Transportation Safety Board Aviation Accident Data Summary

Location:	South Lake Tahoe, CA	Accident Number:	WPR16FA007
Date & Time:	10/10/2015, 1735 PDT	Registration:	N4485D
Aircraft:	BEECH G35	Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The private pilot and passenger were departing on a personal cross-country flight. During takeoff, witnesses observed that the airplane was struggling to gain altitude and noted that the engine sounded as if it was not producing adequate power. They added that, as the airplane crossed over the airport boundaries, it climbed to about 100 ft above ground level in an excessively high pitch-up attitude. Shortly thereafter, the airplane crossed a ridgeline, entered a nose- and left-wing-low attitude, and impacted the backyard of a residence.

While ceiling and visibility were not an issue in this accident, the wind magnitude and changes in wind direction likely affected the flight. Wind gusts were as high as 26 knots around the accident time, and weather observation sites within 3 miles of the accident site all reported large changes in wind direction around the accident time. Although the wind was mainly from the south to southwest, there were times when the wind came from the west and north. This change in wind direction was likely due to mountain wave conditions and wind flow over the mountainous terrain, and these changes in wind direction and gusts likely affected the accident flight and the pilot's ability to control the airplane.

Wreckage and impact signatures were consistent with a left-wing-low and nose-low impact. Postaccident examination of the airframe, flight control system, and engine revealed no evidence of mechanical malfunctions or failures that would have precluded normal operation. Based on the witness observations and the recorded weather data, it is likely that the airplane encountered a downdraft that exceeded the airplane's climb performance, which resulted in the airplane exceeding its critical angle-of-attack and a subsequent aerodynamic stall.

An area forecast, issued about 5 hours before the accident, forecasted southwest wind at 20 knots with gusts to 30 knots for the time surrounding the accident. A terminal aerodrome forecast issued 1 hour before the accident, forecasted wind from 190 degrees at 11 knots gusting to 20 knots. However, there is no evidence that the pilot obtained weather information before the flight, thus he may not have been aware of the gusting wind conditions that affected the flight.

Flight Events

Enroute-climb to cruise - Turbulence encounter
Enroute-climb to cruise - Loss of control in flight
Enroute-climb to cruise - Collision with terr/obj (non-CFIT)

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's inability to maintain airplane control due to an encounter with a downdraft that exceeded the airplane's climb performance capabilities and resulted in an aerodynamic stall. Contributing to the accident was the pilot's decision to depart without obtaining a weather briefing.

Findings

Aircraft-Aircraft oper/perf/capability-Aircraft capability-Climb capability-Capability exceeded - C
Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C
Personnel issues-Action/decision-Info processing/decision-Decision making/judgment-Pilot - F
Environmental issues-Conditions/weather/phenomena-Wind-Downdraft-Effect on operation - C

Pilot Information

Certificate:	Private	Age:	73
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	(Estimated) 1580 hours (Total, all aircraft), 158 hours (Total, this make and model), 1534 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BEECH	Registration:	N4485D
Model/Series:	G35 NO SERIES	Engines:	1 Reciprocating
Operator:	On file	Engine Manufacturer:	Continental Motors
Operating Certificate(s) Held:	None	Engine Model/Series:	E-225-8
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KTVL, 6314 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None	Wind Speed/Gusts, Direction:	10 knots / 21 knots, 210°
Temperature:	21 °C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	South Lake Tahoe, CA (TVL)	Destination:	

Airport Information

Airport:	LAKE TAHOE (TVL)	Runway Surface Type:	N/A
Runway Used:	N/A	Runway Surface Condition:	Dry; Vegetation
Runway Length/Width:			

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:	38.865833, -119.998056 (est)		

Administrative Information

Investigator In Charge (IIC):	Maja Smith	Adopted Date:	01/31/2017
Note:	The NTSB traveled to the scene of this accident.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=92151		

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