



National Transportation Safety Board Aviation Accident Data Summary

Location:	Honesdale, PA	Accident Number:	ERA16LA224
Date & Time:	06/20/2016, 1445 EDT	Registration:	N54285
Aircraft:	CESSNA 172P	Injuries:	3 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The private pilot reported that the airplane was loaded near its maximum allowable gross weight before departure from the airport. The calculated density altitude was 3,297 ft mean sea level. The pilot stated that, after becoming airborne and climbing to 30 to 40 ft above ground level (agl), he "felt that the airplane was not climbing." The pilot subsequently closed the throttle and attempted to land on the remaining runway.

A review of surveillance video showed the wings of the airplane rocking immediately after liftoff at the mid-point of the runway, which was about 3,000 ft long. The video showed that the airplane's pitch attitude increased, but the airplane never climbed more than about 15 ft agl before it fell hard to the runway on all three landing gear, consistent with an aerodynamic stall. The airplane bounced several times, settled onto the runway with about 500 ft remaining, then overran the right side of the runway at the departure end. Performance data from the pilot's operating handbook indicated that, given the conditions present at the time of the accident, the airplane's landing distance was about 610 ft. Postaccident examination revealed substantial damage to the airplane's wings; there was no evidence of any preimpact mechanical anomalies of the airframe or engine. A postaccident engine run also revealed no anomalies.

Flight Events

Takeoff - Aerodynamic stall/spin
Landing-flare/touchdown - Hard landing

Probable Cause

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

The pilot's failure to maintain adequate airspeed while departing in a heavily loaded airplane at high density altitude, which resulted in the airplane exceeding its critical angle of attack and experiencing an aerodynamic stall, landing hard, and overrunning the runway.

Findings

Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C
 Environmental issues-Conditions/weather/phenomena-Temp/humidity/pressure-High density
 altitude-Effect on operation

Pilot Information

Certificate:	Private	Age:	58
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	878 hours (Total, all aircraft), 878 hours (Total, this make and model)		

Co-Pilot Information

Certificate:	Private	Age:	78
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	4200 hours (Total, all aircraft), 2000 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N54285
Model/Series:	172P P	Engines:	1 Reciprocating
Operator:	On file	Engine Manufacturer:	LYCOMING
Operating Certificate(s) Held:	None	Engine Model/Series:	O-320 SERIES
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:	KMSV, 1403 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None	Wind Speed/Gusts, Direction:	10 knots / , 280°
Temperature:	29° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Honesdale, PA (N30)	Destination:	Morristown, NJ (MMU)

Airport Information

Airport:	CHERRY RIDGE (N30)	Runway Surface Type:	Asphalt
Runway Used:	18	Runway Surface Condition:	Dry
Runway Length/Width:	2986 ft / 50 ft		

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:	41.509444, -75.250833 (est)		

Administrative Information

Investigator In Charge (IIC):	Brian C Rayner	Adopted Date:	07/20/2017
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=93425		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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.