



Aviation Investigation Final Report

Location:	Clemson, South Carolina	Accident Number:	GAA19CA194
Date & Time:	April 2, 2019, 16:30 Local	Registration:	N54222
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Aerodynamic stall/spin	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The solo student pilot reported that, during landing, as the nosewheel touched down on the runway, he felt a "strong vibration," and the airplane veered left. He tried to correct by pulling back on the yoke, but the airplane became airborne and continued veering left, and the left wing impacted a ramp left of the runway.

Examination of video surveillance revealed that, shortly after landing, the airplane veered left. The airplane then became airborne, aerodynamically stalled, and the left wing dropped and impacted the ramp.

The airplane sustained substantial damage to the left wing.

The manager reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

Probable Cause and Findings

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

The pilot's failure to maintain directional control during the landing roll and his exceedance of the airplane's critical angle of attack when it inadvertently became airborne, which resulted in an aerodynamic stall.

Findings

Aircraft	Angle of attack - Capability exceeded
Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Student/instructed pilot

Factual Information

History of Flight

Landing	Loss of control on ground
Landing	Attempted remediation/recovery
Landing	Aerodynamic stall/spin (Defining event)

Student pilot Information

Certificate:	Student	Age:	32,Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	October 19, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 59.5 hours (Total, all aircraft), 59.5 hours (Total, this make and model), 7.5 hours (Pilot In Command, all aircraft), 30.1 hours (Last 90 days, all aircraft), 13.6 hours (Last 30 days, all aircraft), 3.9 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N54222
Model/Series:	172 P	Aircraft Category:	Airplane
Year of Manufacture:	1981	Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	17274926
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	March 27, 2019 100 hour	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3138 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C126 installed, activated, did not aid in locating accident	Engine Model/Series:	O-360-A4M
Registered Owner:		Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KCEU, 891 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	20:54 Local	Direction from Accident Site:	272°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 7500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.09 inches Hg	Temperature/Dew Point:	15°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Lawrenceville, GA (LZU)	Type of Flight Plan Filed:	VFR
Destination:	Clemson, SC (CEU)	Type of Clearance:	VFR flight following
Departure Time:	15:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	OCONEE COUNTY RGNL CEU	Runway Surface Type:	Asphalt
Airport Elevation:	890 ft msl	Runway Surface Condition:	Dry
Runway Used:	25	IFR Approach:	None
Runway Length/Width:	5000 ft / 100 ft	VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	34.671943,-82.883613(est)

Administrative Information

Investigator In Charge (IIC):	Benhoff, Kathryn
Additional Participating Persons:	Todd Clamp; FAA; West Columbia, SC
Original Publish Date:	November 6, 2019
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=99216

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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).