



Aviation Investigation Final Report

Location:	Caldwell, New Jersey	Accident Number:	GAA19CA106
Date & Time:	December 30, 2018, 16:20 Local	Registration:	N2651R
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The chief pilot of the flight school reported that, after the student pilot had performed two landings with the flight instructor, the instructor exited the airplane, and the student performed a solo flight around the traffic pattern. After a full-stop landing, the student added full power for another takeoff, but the airplane veered left. The student added rudder inputs to correct, but the airplane exited the runway, struck a berm, and the nose landing gear collapsed.

The airplane sustained substantial damage to the fuselage.

The chief pilot 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 student pilot's failure to maintain directional control during the takeoff roll.

Findings

Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Student/instructed pilot
Environmental issues	Sloped/uneven terrain - Contributed to outcome

Factual Information

History of Flight

Takeoff	Loss of control on ground (Defining event)
Takeoff	Attempted remediation/recovery
Takeoff	Runway excursion
Takeoff	Collision with terr/obj (non-CFIT)
Takeoff	Landing gear collapse

Student pilot Information

Certificate:	Student	Age:	40,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 3 With waivers/limitations	Last FAA Medical Exam:	October 6, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 60 hours (Total, all aircraft), 60 hours (Total, this make and model), 1 hours (Pilot In Command, all aircraft), 30 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N2651R
Model/Series:	172 R	Aircraft Category:	Airplane
Year of Manufacture:	1998	Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	17280542
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	December 28, 2018 100 hour	Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	7460.9 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C91A installed, not activated	Engine Model/Series:	IO-360-L2A
Registered Owner:		Rated Power:	160 Horsepower
Operator:		Operating Certificate(s) Held:	Pilot school (141)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KCDW, 52 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	15:53 Local	Direction from Accident Site:	0°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 2700 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:	30.22 inches Hg	Temperature/Dew Point:	1°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Caldwell, NJ (CDW)	Type of Flight Plan Filed:	None
Destination:	Caldwell, NJ (CDW)	Type of Clearance:	VFR
Departure Time:	16:00 Local	Type of Airspace:	Class D

Airport Information

Airport:	ESSEX COUNTY CDW	Runway Surface Type:	Asphalt
Airport Elevation:	172 ft msl	Runway Surface Condition:	Dry
Runway Used:	22	IFR Approach:	None
Runway Length/Width:	4552 ft / 80 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	40.875556,-74.278335(est)

Administrative Information

Investigator In Charge (IIC):	Swenson, Eric
Additional Participating Persons:	Rich Rohrig; FAA; Saddle Brook, NJ
Original Publish Date:	September 26, 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=98899

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