



# Aviation Investigation Final Report

<b>Location:</b>	Glendale, Arizona	<b>Accident Number:</b>	GAA18CA253
<b>Date &amp; Time:</b>	May 4, 2018, 12:00 Local	<b>Registration:</b>	N99141
<b>Aircraft:</b>	Cessna 172	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control in flight	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

## Analysis

The flight instructor reported that, during takeoff, the solo student pilot realized he had a crosswind from the right and applied right aileron and right rudder. He added that, as the student rotated the airplane, it drifted left. The student then lost airplane control, pulled the engine power to idle, and aborted the takeoff. Subsequently, during touchdown, the airplane veered hard to the left and exited the runway, and the nose landing gear collapsed.

The airplane sustained substantial damage to the forward fuselage.

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

The automated weather observation system at the accident airport reported that, about the time of the accident, the wind was calm. The student pilot was departing from runway 1.

## 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 runway alignment during takeoff, which resulted in an aborted takeoff and runway excursion.

## Findings

<b>Aircraft</b>	Heading/course - Not attained/maintained
<b>Aircraft</b>	Directional control - Not attained/maintained
<b>Personnel issues</b>	Aircraft control - Student/instructed pilot

## Factual Information

### History of Flight

<b>Takeoff</b>	Other weather encounter
<b>Takeoff</b>	Loss of control in flight (Defining event)
<b>Takeoff-rejected takeoff</b>	Loss of control on ground
<b>Takeoff-rejected takeoff</b>	Runway excursion
<b>Takeoff-rejected takeoff</b>	Landing gear collapse

### Student pilot Information

<b>Certificate:</b>	Student	<b>Age:</b>	22,Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	November 24, 2017
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	(Estimated) 65.9 hours (Total, all aircraft), 11.5 hours (Pilot In Command, all aircraft), 55.2 hours (Last 90 days, all aircraft), 19.2 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N99141
<b>Model/Series:</b>	172 P	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1985	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal; Utility	<b>Serial Number:</b>	17276409
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	April 11, 2018 100 hour	<b>Certified Max Gross Wt.:</b>	2550 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-320 SER
<b>Registered Owner:</b>		<b>Rated Power:</b>	150 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	Pilot school (141)

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KGEU, 1066 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	18:53 Local	<b>Direction from Accident Site:</b>	204°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	30.11 inches Hg	<b>Temperature/Dew Point:</b>	32°C / -1°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Glendale, AZ (GEU )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Glendale, AZ (GEU )	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	11:30 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	GLENDAL MUNI GEU	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	1071 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	01	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	7150 ft / 100 ft	<b>VFR Approach/Landing:</b>	Full stop;Precautionary landing;Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	33.528057,-112.294441(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Swenson, Eric
<b>Additional Participating Persons:</b>	Alfred Rager; FAA; Scottsdale, AZ
<b>Original Publish Date:</b>	October 24, 2018
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=97181">https://data.nts.gov/Docket?ProjectID=97181</a>

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