Aviation Investigation Final Report

Location:	Moline, Illinois	**Accident Number:**	CEN23LA111
Date & Time:	February 19, 2023, 09:10 Local	**Registration:**	N84688
Aircraft:	Cessna 172K	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control on ground	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The solo student pilot stated he was in the practice area and made the decision to return to the departure airport due to increasing winds. The pilot reported that on the landing rollout he felt a “large gust of wind” elevate the left wing making the airplane veer to the right. The pilot attempted to “pull back and brake.” The airplane exited the runway, and the left main wheel and strut impacted a runway sign which resulted in substantial damage to the fuselage. The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

A wind limitation in the flight school pre-solo packet states surface winds must be “less than 15 knot winds” and “less than 7 knot crosswind component.” The flight instructor did not list any limitations on the student’s initial solo endorsement. Five minutes before the accident, surface winds were reported from 230° at 17 knots, gusting to 26 knots. The student pilot was landing on runway 27. Runway 23 was closed at the time of the accident.

According to the owner of the flight school, the student did not check in with her before launching to discuss weather and his flight plan as he was supposed to.

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 landing roll in gusting crosswind conditions.

Findings

Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Pilot
Environmental issues	Gusts - Contributed to outcome
Environmental issues	Crosswind - Response/compensation
Environmental issues	Sign/marker - Contributed to outcome
Organizational issues	Oversight of operation - Training organization

Factual Information

History of Flight

Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Runway excursion
Landing-landing roll	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Student	**Age:**	45,Male
Airplane Rating(s):	None	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	None	**Second Pilot Present:**	
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	December 9, 2022
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	93.7 hours (Total, all aircraft), 34.1 hours (Total, this make and model), 9 hours (Pilot In Command, all aircraft), 17 hours (Last 90 days, all aircraft), 8.2 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N84688
Model/Series:	172K	**Aircraft Category:**	Airplane
Year of Manufacture:	1969	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	17258578
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	February 9, 2023 100 hour	**Certified Max Gross Wt.:**	2300 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	44781.8 Hrs as of last inspection	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-320E2D
Registered Owner:	Quad Cities Aero, LLC	**Rated Power:**	160 Horsepower
Operator:	Quad Cities Aero, LLC	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KMLI,576 ft msl	**Distance from Accident Site:**	1 Nautical Miles
Observation Time:	09:05 Local	**Direction from Accident Site:**	267°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	17 knots / 26 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	230°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.83 inches Hg	**Temperature/Dew Point:**	7°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Moline, IL	**Type of Flight Plan Filed:**	VFR
Destination:	Moline, IL	**Type of Clearance:**	VFR
Departure Time:		**Type of Airspace:**	Class C

Airport Information

Airport:	QUAD CITIES INTL MLI	**Runway Surface Type:**	Concrete
Airport Elevation:	589 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	27	**IFR Approach:**	None
Runway Length/Width:	10002 ft / 150 ft	**VFR Approach/Landing:**	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	41.448854,-90.499677(est)

Administrative Information

Investigator In Charge (IIC):	Rutt, Brian
Additional Participating Persons:	William Borah; FAA - Greater Chicago FSDO
Original Publish Date:	April 6, 2023
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=106749