



# **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

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## **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)		

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### **Aircraft and Owner/Operator Information**

Cessna	Registration:	N84688
172K	Aircraft Category:	Airplane
1969	Amateur Built:	
Normal	Serial Number:	17258578
Tricycle	Seats:	4
February 9, 2023 100 hour	Certified Max Gross Wt.:	2300 lbs
	Engines:	1 Reciprocating
44781.8 Hrs as of last inspection	Engine Manufacturer:	Lycoming
Installed, not activated	Engine Model/Series:	O-320E2D
Quad Cities Aero, LLC	Rated Power:	160 Horsepower
Quad Cities Aero, LLC	Operating Certificate(s) Held:	None
	172K 1969 Normal Tricycle February 9, 2023 100 hour  44781.8 Hrs as of last inspection Installed, not activated Quad Cities Aero, LLC	Aircraft Category:  1969 Amateur Built:  Normal Serial Number:  Tricycle Seats:  February 9, 2023 100 hour Certified Max Gross Wt.:  Engines:  44781.8 Hrs as of last inspection Installed, not activated Quad Cities Aero, LLC Quad Cities Aero, LLC Quad Cities Aero, LLC Operating Certificate(s)

## 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°
<b>Lowest Cloud Condition:</b>	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

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### **Airport Information**

Airport:	QUAD CITIES INTL MLI	Runway Surface Type:	Concrete
Airport Elevation:	589 ft msl	<b>Runway Surface Condition:</b>	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)

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#### **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

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 Code of Federal Regulations section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 United States Code section 1154(b)). A factual report that may be admissible under 49 United States Code section 1154(b) is available here.

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