



# Aviation Investigation Final Report

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<b>Location:</b>	Lancaster, New York	<b>Accident Number:</b>	ERA22LA228
<b>Date &amp; Time:</b>	May 14, 2022, 14:10 Local	<b>Registration:</b>	N20459
<b>Aircraft:</b>	Cessna 172M	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control in flight	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

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## Analysis

The flight instructor reported that after she demonstrated a soft-field takeoff, she directed the student to conduct one. During the takeoff roll, the student maintained excessive back pressure on the control yoke and was told by the instructor to reduce the back pressure. Once the airplane lifted off the runway it started to veer to the left; the instructor again informed the student to reduce back pressure to decrease the pitch, but the student maintained a grip on the controls and held excessive right rudder. The instructor stated, “I have the controls,” but the student “locked up and blocked” them and failed to relinquish the controls. The instructor was able to reduce the pitch, but directional control was lost, and the left wing contacted the runway surface, and the airplane departed the runway and flipped over, which resulted in substantial damage to the wings and airframe. The instructor stated that there were no mechanical malfunctions or failures 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 excessive pitch during takeoff resulted in a loss of control and impact with terrain. Contributing was the student’s failure to relinquish the controls when ordered by the instructor.

## Findings

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<b>Aircraft</b>	Pitch control - Incorrect use/operation
<b>Personnel issues</b>	Unnecessary action - Student/instructed pilot
<b>Aircraft</b>	Directional control - Not attained/maintained
<b>Personnel issues</b>	Anxiety/panic - Student/instructed pilot

## Factual Information

### History of Flight

<b>Takeoff</b>	Loss of control in flight (Defining event)
<b>Initial climb</b>	Dragged wing/rotor/float/other

### Flight instructor Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	26,Female
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 3 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	June 2, 2018
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	June 13, 2021
<b>Flight Time:</b>	360.5 hours (Total, all aircraft), 300 hours (Total, this make and model), 309.4 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 16.2 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Student pilot Information

<b>Certificate:</b>	Student	<b>Age:</b>	16,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>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	None	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	13.9 hours (Total, all aircraft), 13.9 hours (Total, this make and model), 0 hours (Pilot In Command, all aircraft), 3.8 hours (Last 90 days, all aircraft), 3.8 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N20459
<b>Model/Series:</b>	172M	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1973	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	17261305
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	July 30, 2021 Annual	<b>Certified Max Gross Wt.:</b>	2550 lbs
<b>Time Since Last Inspection:</b>	73 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2894 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-360-A4M
<b>Registered Owner:</b>	LITTLE BIRD AIRWAYS LLC	<b>Rated Power:</b>	180 Horsepower
<b>Operator:</b>	LITTLE BIRD AIRWAYS LLC	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	BUF,705 ft msl	<b>Distance from Accident Site:</b>	6 Nautical Miles
<b>Observation Time:</b>	13:54 Local	<b>Direction from Accident Site:</b>	281°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 6000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	29.94 inches Hg	<b>Temperature/Dew Point:</b>	27°C / 14°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Lancaster, NY	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Lancaster, NY	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	Buffalo-Lancaster Regional Airport BQR	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	751 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	09/27	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	3199 ft / 75 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	42.922056,-78.611972

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Mccarter, Lawrence
<b>Additional Participating Persons:</b>	Paul Pryor; FAA FSDO; Rochester, NY
<b>Original Publish Date:</b>	July 13, 2022
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=105084">https://data.ntsb.gov/Docket?ProjectID=105084</a>

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](#).