



National Transportation Safety Board Aviation Accident Final Report

Location:	Louisville, KY	Accident Number:	GAA20CA023
Date & Time:	10/15/2019, 1447 EDT	Registration:	N6097G
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 solo student pilot reported that, while in the traffic pattern to land, the flaps would not lower, and he had to move the flap lever up and down several times to troubleshoot. Once on the base leg, he realized that the airplane was faster than normal. On final, he extended the flaps to 30° but felt the airplane was too high and fast. He reduced power to correct, and over the threshold, the airplane encountered a crosswind which pushed the airplane to the left of the runway centerline. He reduced power to idle and pushed the nose down "too quickly." The nose landing gear hit the runway first, the airplane porpoised, and he attempted to pitch the nose up to decrease airspeed. He was then worried that the airplane would aerodynamically stall "too high in the air," so he pitched the nose down. The airplane landed hard in the grass left of the runway, the nose dug into the ground, and the airplane came to rest inverted. The airplane sustained substantial damage to the right wing. The student reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation and that he should have added full power and performed a go-around. He added that he felt pressured to land the airplane to "get out of everyone's way."

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The student pilot's improper landing flare, which resulted in a porpoised landing, a subsequent hard landing on grass left of the runway, and a nose-over. Contributing to the accident was the student's self-imposed pressure to land the airplane

Findings

Aircraft	Landing flare - Not attained/maintained (Cause)
Personnel issues	Aircraft control - Student pilot (Cause) Motivation/respond to pressure - Student pilot (Factor)
Environmental issues	Soft surface - Effect on operation (Cause) Crosswind - Effect on operation (Cause)

Factual Information

History of Flight

Landing	Abnormal runway contact Hard landing Loss of control on ground (Defining event) Runway excursion Nose over/nose down
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Student Pilot Information

Certificate:	Student	Age:	47, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
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:	05/30/2019
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 52 hours (Total, all aircraft), 52 hours (Total, this make and model), 1 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N6097G
Model/Series:	172 S	Aircraft Category:	Airplane
Year of Manufacture:	2004	Amateur Built:	No
Airworthiness Certificate:	Normal; Utility	Serial Number:	172S9673
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	09/17/2019, 100 Hour	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	7736.8 Hours at time of accident	Engine Manufacturer:	Lycoming
ELT:	C91A installed, activated, aided in locating accident	Engine Model/Series:	IO-360-L2A
Registered Owner:	Bccm Aircraft Holdings Llc	Rated Power:	160 hp
Operator:	Cardinal Wings Aviation LLC	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KLOU, 540 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1853 UTC	Direction from Accident Site:	69°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.91 inches Hg	Temperature/Dew Point:	23° C / 12° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Georgetown, KY (27K)	Type of Flight Plan Filed:	None
Destination:	Louisville, KY (LOU)	Type of Clearance:	None
Departure Time:	1405 EDT	Type of Airspace:	Class D

Airport Information

Airport:	BOWMAN FIELD (LOU)	Runway Surface Type:	Asphalt
Airport Elevation:	545 ft	Runway Surface Condition:	Dry
Runway Used:	15	IFR Approach:	None
Runway Length/Width:	3580 ft / 75 ft	VFR Approach/Landing:	Full Stop; Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	38.227778, -85.664722 (est)

Administrative Information

Investigator In Charge (IIC):	Kathryn R Benhoff	Report Date:	05/21/2020
Additional Participating Persons:	Dan Kelly; FAA; Greensboro, NC		
Publish Date:	05/21/2020		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=100430		

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