Aviation Investigation Final Report

Location:	Dillon, Montana	**Accident Number:**	WPR21LA067
Date & Time:	December 8, 2020, 08:50 Local	**Registration:**	N46017
Aircraft:	Cessna 172	**Aircraft Damage:**	Substantial
Defining Event:	Aerodynamic stall/spin	**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The solo student pilot reported that, while on final approach to land, he decided to initiate a go-around. He applied full power and pitched up the airplane, which then stalled and turned left about 90°. The pilot was able to recover from the stall, but the airplane was close to the ground. Subsequently he landed the airplane in an open field. The student saw an irrigation ditch ahead and attempted to become airborne again, but the airplane did not gain sufficient lift and subsequently impacted the ditch. The airplane sustained substantial damage to the fuselage. The student reported that there were no preaccident mechanical failures or malfunctions with the airplane 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 exceedance of the airplane's critical angle attack during an attempted go-around, which resulted in an aerodynamic stall.

Findings

Aircraft	Angle of attack - Not attained/maintained
Personnel issues	Use of equip/system - Student/instructed pilot
Environmental issues	Sloped/uneven terrain - Contributed to outcome

Factual Information

History of Flight

Approach-VFR go-around	Aerodynamic stall/spin (Defining event)
Approach-VFR go-around	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Student	**Age:**	23,Male
Airplane Rating(s):	None	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	
Medical Certification:	Class 1 Without waivers/limitations	**Last FAA Medical Exam:**	September 9, 2020
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	49.2 hours (Total, all aircraft), 48.1 hours (Total, this make and model), 6.7 hours (Pilot In Command, all aircraft), 39.6 hours (Last 90 days, all aircraft), 13.8 hours (Last 30 days, all aircraft), 1.4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N46017
Model/Series:	172 I	**Aircraft Category:**	Airplane
Year of Manufacture:	1968	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	17256990
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	November 15, 2020 Annual	**Certified Max Gross Wt.:**	2300 lbs
Time Since Last Inspection:	62.6 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	5377.2 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	C126 installed, activated, did not aid in locating accident	**Engine Model/Series:**	0-320-E2D
Registered Owner:	Martineau Aircraft	**Rated Power:**	150
Operator:	Ridgeview Aviation	**Operating Certificate(s) Held:**	Pilot school (141)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KDLN,5222 ft msl	**Distance from Accident Site:**	0 Nautical Miles
Observation Time:	09:53 Local	**Direction from Accident Site:**	194°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	18 knots / None	**Turbulence Type Forecast/Actual:**	Unknown / Unknown
Wind Direction:	220°	**Turbulence Severity Forecast/Actual:**	Unknown / Unknown
Altimeter Setting:	30.34 inches Hg	**Temperature/Dew Point:**	3°C / -11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bozeman, MT (BZN)	**Type of Flight Plan Filed:**	
Destination:	Dillon, MT (DLN)	**Type of Clearance:**	VFR flight following
Departure Time:	07:41 Local	**Type of Airspace:**	Class E

Airport Information

Airport:	Dillon Airport DLN	**Runway Surface Type:**	Asphalt
Airport Elevation:	5244 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	17	**IFR Approach:**	None
Runway Length/Width:	6501 ft / 75 ft	**VFR Approach/Landing:**	Full stop;Go around

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	1 Serious	**Latitude, Longitude:**	45.264859,-112.55151(est)

Administrative Information

Investigator In Charge (IIC):	Cawthra, Joshua
Additional Participating Persons:	Troy McClanahan; Federal Aviation Administration; Helana, MT
Original Publish Date:	August 20, 2021
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=102387