



National Transportation Safety Board Aviation Accident Final Report

Location:	Boulder, CO	Accident Number:	CEN20CA094
Date & Time:	02/20/2020, 1100 MST	Registration:	N370SP
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot departed from a snow-packed runway, flew locally for about 2 hours, and then returned to land. The pilot stated that, while in the traffic pattern preparing to land, the runway still appeared to be snow-packed like it was during the departure. However, the runway was actually slush covered with patches of ice due to the morning sun melting the previously hard snow, and the airplane veered left during the landing roll. The pilot was unable to maintain directional control, and the airplane subsequently impacted a snowbank on the edge of the runway and nosed over, which resulted in substantial damage to both wings and the vertical stabilizer.

Probable Cause and Findings

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

The pilot's loss of directional control during the landing roll on the slush-covered runway.

Findings

Aircraft	Directional control - Not attained/maintained (Cause)
Personnel issues	Aircraft control - Pilot (Cause) Perception - Pilot
Environmental issues	Snow/slush/ice covered surface - Effect on operation (Cause)

Factual Information

History of Flight

Landing-landing roll	Loss of control on ground (Defining event) Collision during takeoff/land Nose over/nose down
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Pilot Information

Certificate:	Foreign; Private	Age:	33, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	Glider	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without Waivers/Limitations	Last FAA Medical Exam:	09/29/2015
Occupational Pilot:	No	Last Flight Review or Equivalent:	10/07/2019
Flight Time:	506 hours (Total, all aircraft), 120 hours (Total, this make and model), 342 hours (Pilot In Command, all aircraft), 8 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N370SP
Model/Series:	172 S	Aircraft Category:	Airplane
Year of Manufacture:	2003	Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	172S9501
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	08/10/2019, Annual	Certified Max Gross Wt.:	2299 lbs
Time Since Last Inspection:	91 Hours	Engines:	1 Reciprocating
Airframe Total Time:	4107 Hours at time of accident	Engine Manufacturer:	Lycoming
ELT:	C91 installed, activated, did not aid in locating accident	Engine Model/Series:	IO-360-L2A
Registered Owner:	Rocky Mountain Flight Consultants Llc	Rated Power:	180 hp
Operator:	Rocky Mountain Flight Consultants Llc	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KBDU, 5289 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1112 MST	Direction from Accident Site:	125°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.52 inches Hg	Temperature/Dew Point:	-5° C / -14° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Boulder, CO (BDU)	Type of Flight Plan Filed:	None
Destination:	Boulder, CO (BDU)	Type of Clearance:	None
Departure Time:	0845 MST	Type of Airspace:	Class G

Airport Information

Airport:	Boulder Muni (BDU)	Runway Surface Type:	Asphalt; Snow
Airport Elevation:	5288 ft	Runway Surface Condition:	Slush covered
Runway Used:	08	IFR Approach:	None
Runway Length/Width:	4100 ft / 75 ft	VFR Approach/Landing:	Full Stop; Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	40.040000, -105.230000 (est)

Administrative Information

Investigator In Charge (IIC):	Michael J Folkerts	Report Date:	08/25/2020
Additional Participating Persons:	Joseph Chavez; Flight Standards District Office; Denver, CO		
Publish Date:	08/25/2020		
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=100973		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).